



**Purchasing**  
Marcia Sieben, CPPO, CPPB  
Purchasing Manager

## REQUEST FOR PROPOSAL (RFP)

The County of Jefferson, Colorado, by and through its Purchasing Manager, is accepting proposals for **design engineering services (Wadsworth-Waterton Canyon Intersection)** in accordance with the terms, conditions, and specifications contained in these RFP documents.

Offerors wishing to participate in this RFP process should ensure they have all addenda prior to submission of proposals. Failure to acknowledge receipt of any addenda applicable to this project could result in the rejection of your response.

This RFP **and** documents related to this project are available on the Jefferson County Transportation & Engineering Division website: <http://jeffco.us/transportation-and-engineering/projects/wadsworth-and-waterton-canyon-intersection/> (Ctrl + Click to follow the link).

### Pre-proposal Conference

A pre-proposal conference will not be conducted for this project. Participating firms are responsible for familiarizing themselves with all aspects of the project prior to submitting a proposal.

### Questions (Reference PROPOSAL INFORMATION Item 2)

All questions must be submitted in writing via e-mail to [mharter@jeffco.us](mailto:mharter@jeffco.us).

Questions due by: Date: **October 15, 2013** Time: **11:00 A.M.** (*Questions received after this time will not be accepted.*)

### Proposal Instructions (Reference PROPOSAL INFORMATION Item 14)

Submittal requirements are outlined in the *Proposal Submittal Section*, Submittal Checklist. Place all required copies in a sealed envelope bearing the return address of the participating firm and mark as follows:

**Proposal Number:** 3175W-HT      **Project Title:** Design Engineering Services (Wadsworth-Waterton Canyon Intersection)

CDOT Project Number: FSA C110-034 (19188); Jefferson County Transportation & Engineering Project No. 6-69-03-3652

**Proposal Due Date:** November 4, 2013      **Time:** 11:00 A.M.      (*Late proposals will not be accepted or considered.*)

### Deliver Proposal To

Jefferson County, Colorado, Purchasing, Attn: Martin Harter, 100 Jefferson County Parkway, Ste 4500, Golden, Colorado 80419-4500

**FAX submittals will not be accepted.**

### Contract

The successful firm will be required to execute an agreement with Jefferson County in a form which will include all of the terms, conditions, specifications, proposed prices, and any approved exceptions to this Request for Proposal. The enclosed agreement is substantially in the form that will be executed between the successful firm and Jefferson County.

The County of Jefferson, Colorado, reserves the right to reject any or all proposals or portions thereof, to waive any informalities or irregularities in the proposals received which are inconsequential or immaterial in nature, and to approve awards in total or in part, whichever, in its judgment best serves the interests of Jefferson County, Colorado.

  
\_\_\_\_\_  
Marcia Sieben, CPPO, CPPB  
Purchasing Manager

October 8, 2013  
\_\_\_\_\_  
Date

## PROPOSAL INFORMATION

1. **Understanding of the Work:** All participating firms or individuals (hereinafter referred to as Offeror) are expected to examine all documents contained herein. Failure to do so shall in no way relieve an Offeror from obligations with respect to his/her offer or to the resultant award. Nonresponsive and incomplete submittals may be deemed cause for rejection. The County is not required to give consideration to any claim of misunderstanding.
2. **Questions:** Offerors, by their signature hereunder, shall agree to comply with all the conditions, requirements, and instructions of this Request for Proposal (herein referred to as RFP) as stated or implied herein. Should the County omit anything from this RFP package which is necessary to a clear understanding of the project, or should it appear that various instructions are in conflict, then the Offeror shall secure instructions from Jefferson County Purchasing. All questions must be submitted in writing or via e-mail to Jefferson County Purchasing by the time and date specified in the RFP. Questions must reference the RFP Proposal Number and the Project Title. Responses to Supplier inquiries for project budget or engineer's estimate will be deferred until after bid opening (for competitive sealed bids) or after award (for competitive sealed proposals).
3. **RFP Modifications:** Modifications to any of the terms, conditions, or specifications of this RFP which are made by the County after the packages have been distributed to prospective Offerors, and prior to the due date and time, will be made in writing, and signed by the Purchasing Manager. No employee of Jefferson County is authorized to modify any of the terms, conditions, or specifications of this package without written approval of the Purchasing Manager. This is not to imply that offers will not be accepted or considered for specifications which are different than those herein.
4. **Joint Ventures:** Principals from all Offerors participating in a joint venture must be present at the pre-proposal conference, if Mandatory, and indicate on the sign-in sheet their intentions to participate as a joint venture.
5. **Collusion:** By submitting an offer, the Offeror certifies that (a) the prices in the proposal have been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition as to any matter relating to such prices with any other participating Offeror or with any competitor; (b) the prices quoted herein have not been and will not be knowingly disclosed, directly or indirectly, by the Offeror to any other participating Offerors, competitors or County's representatives prior to the final date for submission of such offer; and (c) no attempt has been made and none will be made by the Offeror to induce any other person partnership or corporation to submit a proposal or not to submit a proposal (complementary or otherwise) for the purpose of restricting competition.
6. **Obligation:** By submitting a proposal, the Offeror acknowledges that (a) the preparation and submission of the proposal, and other quotations herein contained, does not obligate the County in any way; (b) the County assumes no obligation to enter into an agreement for the project; (c) all RFP documents are understood; and (d) the Offeror has the equipment, technical ability, personnel and facilities to complete the project as specified herein in accordance with the RFP documents.
7. **Proprietary Information:** If you consider any of the information being submitted to be trade secrets, privileged information, or confidential commercial, financial, geological, or geophysical data, it is your responsibility to label the information as such. Otherwise, all information submitted shall be available as a public record for public inspection.
8. **Payment for Information:** Any and all costs, fees and expenditures paid for, or incurred by, the Offeror in connection with (1) the RFP (2) negotiations (if any) between the Offeror and Jefferson County shall be the Offeror's sole responsibility, and the Offeror shall have no recourse whatsoever against the County for reimbursement of such expenses.
9. **Pre-submittal Corrections:** Proposals should be free of erasures. Errors may be crossed out with corrections printed in ink or typed adjacent, and must bear dated initials of the person signing the proposal.
10. **FOB Point:** All prices offered are to be FOB DESTINATION unless otherwise specified.
11. **Exceptions/Deviations:** Any item which does not meet all of the terms, conditions, or specifications of this RFP must be identified on a point-by-point basis on a separate sheet of paper and returned with your proposal. Indicate the paragraph numbers from the RFP, or describe the specific location of a requirement specified in any attachment, for each deviation proposed. Deviations may be considered, provided that you submit adequate explanation and justification for any proposed deviation. If there are no exceptions/deviations, so state under the EXCEPTIONS section of the RFP.
12. **Prices:** All prices offered shall be less all taxes and discounts, and shall, in every way, be the total net price which the Offeror will expect the County to pay if awarded the project.

## PROPOSAL INFORMATION

13. **Withdrawal of Proposal:** No proposal shall be withdrawn for a period of ninety (90) days subsequent to the opening of proposals without the consent of the County's Purchasing Manager or his/her delegated representative.

Withdrawal of inadvertently erroneous proposals before the award may be permitted if the Offeror submits proof which clearly and convincingly demonstrates, as determined by the County, that an error was made. PROPOSALS MAY NOT BE RE-SUBMITTED.

14. **Submittal Deadline:** Proposals are stamped with the date and time they are received in the County's Purchasing office. Your proposal must be received by Purchasing no later than the date and time indicated in the RFP. Late proposals will not be accepted or considered.

It is the responsibility of the Offeror to insure the proposal arrives in the County's Purchasing office by or prior to the time indicated on the RFP. The County will not accept any late proposals, regardless of the cause (e.g. traffic, inclement weather, parking, courier service, erroneous delivery to any other County office, etc.), unless the County causes the delay.

15. **Clarification:** The County reserves the right to request additional written or oral information from Offerors in order to obtain clarification of their proposal.

16. **Award Recommendation:** The award recommendation shall be made to that responsible Offeror whose proposal is most advantageous to Jefferson County, price, qualifications as submitted with the proposal, and other factors considered.

17. **Preliminary Procedures:** The RFP, the RFP process and any negotiation towards a final contract are preliminary procedures only and SHALL NOT BE BINDING on the County unless and until the County has duly approved and executed a written agreement with the Offeror.

18. **Process Termination:** The County may terminate the RFP process and any negotiation or discussion in connection with the RFP at any time with or without notice to the Offeror or any other person. In such event, the county shall have NO LIABILITY whatsoever to the Offeror or any other person in connection with such termination.

19. **Terms of Payment:** The terms of payment shall be Net 30 following inspection and acceptance of goods/services or receipt of invoice, whichever is later, unless agreed to otherwise.

20. **Nonperformance:** Offerors who fail to perform in accordance with their proposal are subject to the County striking that Offeror from future bidding opportunities for a period of time to be determined by the Purchasing Manager.

21. **Acknowledgement:** By signing the Proposal Sheet contained in this RFP, the Offeror acknowledges that it has the proper legal authority to sign the document, it has received a copy of the RFP and it has read and understands each of the foregoing and all other documents in this RFP package.

22. **Cooperative Purchasing:** Jefferson County encourages cooperative purchasing in an effort to assist other agencies to reduce their cost of bidding and to make better use of taxpayer dollars through volume purchasing. Offerors may, at their discretion, agree to extend the prices and/or terms of the resulting award to other state or local government agencies, school districts, or political subdivisions in the event they would have need for the same product/services. Usage by any other entity shall not have a negative impact on Jefferson County in the current term or in any future terms.

23. **Disposal of Unsolicited Financial Data:** If unsolicited financial data is submitted with a bid response, such information will be destroyed so as not to become part of the public record open to inspection. Vendors are advised to not submit financial information unless it was specifically included as a requirement of the bid response.

## PROPOSAL SUBMITTAL SECTION

### Company Information

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Company Name: \_\_\_\_\_ EIN: \_\_\_\_\_

Company Name as filed with the Secretary of State, if corporate entity: \_\_\_\_\_  
(Colorado Secretary of State Website, for reference purposes, is <http://www.sos.state.co.us/>)

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Company Address: \_\_\_\_\_  
\_\_\_\_\_

Authorized Signature: \_\_\_\_\_

Printed Name and Title: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Date: \_\_\_\_\_

### Authorized Representative

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Indicate the name of the Authorized Representative who will be assigned to this project:

(please print) \_\_\_\_\_

### Submittal Checklist

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The following documents are to be returned with your proposal. Submit **ONE (1)** unbound original and **TEN (10)** copies of **all information** requested herein, including all attachments.

PLACE A CHECK (✓) BY EACH ITEM SUBMITTED

1. ( ) Cover letter indicating your interest in this project.
2. ( ) Detailed Project Approach **AND** any proposed changes to the Detailed Draft Design Scope of Services. **Changes must be made in Microsoft Word with tracking of changes.**
3. ( ) **"Description and List of Deliverables" to include as a minimum:**
  - Preliminary and final design plans
  - Phase II & III Drainage Reports
  - Geotechnical/Soils and Pavement Design Report
  - Environmental documentation report
  - Hand written notes
  - Electronic field notes
  - Meeting minutes/all correspondence
  - Hard and electronic design data
  - Hard and electronic copies of plans
4. ( ) An Organizational Staffing Chart to include:
  - Staffing assignments
  - Subconsultants to be used (if any)
  - Resumes of key individuals

## PROPOSAL SUBMITTAL SECTION

5.  Project Schedule (**bar chart**) indicating in calendar days the time to perform the following tasks:  
Experience of the Firm
- Data Collection Calendar
  - Engineering Analysis
  - Public Involvement
  - Engineering Design (Preliminary & Final)
  - Environmental Documentation/Clearance
  - Right-of-Way Acquisition
  - Construction
  - State assumptions concerning County, CDOT, and other stakeholder review times.
6.  Indicate your willingness to enter into this contract in the form included in this RFP by **signing below**:
- \_\_\_\_\_ **Title:** \_\_\_\_\_
- If you do not sign above**, state your concerns on a separate sheet of paper and submit with your proposal.  
Title the paper: "**Proposed Changes to the Contract for Design Engineering Services**"
7.  Experience of the Firm (**four pages maximum**)
8.  Completed Qualifications Questionnaire (QQ). In order to enable direct comparison of competing proposals, all forms and schedules are to be completed according to instructions and on the forms provided herein (or in the identical format).
- \_\_\_\_\_ #6.        **Attach**-Changes to any of the principals in your organization within the last three (3) years.
- \_\_\_\_\_ #7.        **Attach**-Resumes of all principal members of your organization who will be involved with this project.
- \_\_\_\_\_ #8.        **Attach**-Insurance certificates as specified in Contract Exhibit 'C'.
- \_\_\_\_\_ #9.        **Attach**-List of all subconsultants (if applicable).
- \_\_\_\_\_ #10.       **Attach**-Explanation of any Claims and Suits (if applicable).
- \_\_\_\_\_ #11.       **Attach**-Explanation of charges filed against you, or your firm.
- \_\_\_\_\_ #12.       **Attach**-List of three (3) Professional References
- \_\_\_\_\_ #13.       **Attach**-Additional information which further details your firm's qualifications (optional).
9.  This completed and signed Proposal Submittal Section.
10.  Exceptions sheet, if applicable.
11.  Complete the Acknowledgement of Receipt of Addenda below, if applicable.

**Note:** Be advised that the successful firm, if a corporate entity, will be required to provide evidence of current good standing with the Colorado Secretary of State after acceptance of proposal.

## PROPOSAL SUBMITTAL SECTION

### **Award**

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Proposals submitted which do not meet the requirements of this Request may be considered nonresponsive and may not receive further consideration. (**Follow-up calls for missing or incomplete information may not be made.**)

All responsive proposals received for this project will be reviewed and ranked on a basis which would best serve the interests of Jefferson County. Factors for ranking will include, but not be limited to, the firm's and project staff's qualifications, references, and prior experience as related to this project as set forth in the scope of services required.

The firm(s) which is/are selected will be that/those which best serve the interests of Jefferson County and will be given the first right to negotiate an agreement acceptable to the County. In the event that an agreement satisfactory to the County cannot be reached, the County may enter into contract negotiations with one or more of the remaining qualified firms.

### **Exceptions**

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Print the words "no exceptions" here \_\_\_\_\_ if there are no exceptions taken to any of the terms, conditions, or specifications of these proposal documents or contract. If there are exceptions taken to any of the terms, conditions, or specifications of these proposal documents or contract, they should be clearly stated on a **separate sheet of paper**, attached to this sheet and returned with your proposal. (Reference **PROPOSAL INFORMATION Item 11.**)

### **Acknowledgment of Receipt of Addenda**

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Your acknowledgment of any addendum issued for this RFP shall be noted by signing below. This will serve as your acknowledgment that these clarifications/revisions have been taken into consideration during the preparation of your proposal.

Addendum Number: _____	Date: _____	Acknowledged by: _____
Addendum Number: _____	Date: _____	Acknowledged by: _____
Addendum Number: _____	Date: _____	Acknowledged by: _____

**Qualifications Questionnaire**

Date submitted: \_\_\_\_\_

All questions must be answered completely. If necessary, the firm may supply any additional information and submit with this statement. This statement must be notarized and returned with your proposal.

1. Name of firm  
\_\_\_\_\_
2. Permanent main office address  
\_\_\_\_\_  
\_\_\_\_\_
3. When organized  
\_\_\_\_\_
4. A. If corporation, State incorporated in  
\_\_\_\_\_  
B. Date of last filing with Secretary of State  
\_\_\_\_\_
5. How many years have you been engaged in this type of service? Under what firm name(s) and how long under each?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Have any of the principals in your organization changed within the last three (3) years? Yes \_\_\_ No \_\_\_  
If yes, please **ATTACH** an explanation.
7. **ATTACH** resumes of all principal members of your organization who will be involved with this project
8. **ATTACH** insurance certificates demonstrating your ability to meet the requirements as shown in Contract Exhibit 'C':
9. Do you anticipate subcontracting work under this contract? Yes \_\_\_ No \_\_\_ If yes, **ATTACH** a list of subconsultants
10. Claims and Suits: If the answer to any of the following questions is yes, please **ATTACH** details.  
A. Has your organization ever failed to complete any service awarded to it? Yes \_\_\_ No \_\_\_  
B. Are any lawsuits; Federal, State or local tax liens; or any potential claims or liabilities pending against you, your firm, or the officers of the firm at this time? Yes \_\_\_ No \_\_\_
11. Have any charges been filed against you, your firm, or the bidding entity, with the office of contract compliance, the equal opportunity commission, a state government civil rights commission, or any other similarly constituted entity of anti-discrimination legislation or regulations? \_\_\_\_\_ If yes, **ATTACH** details.
12. **Attach** a list of three (3) references for major contracts with governmental agencies which parallel the proposed project. Provide agency name, address, phone number, contact, project location, project description, gross amount of each contract and the appropriate dates of completion.
13. **Provide any additional information** (optional) which further details your firm's qualifications.

THE UNDERSIGNED HEREBY AUTHORIZES AND REQUESTS ANY PERSON, FIRM, OR CORPORATION TO FURNISH ANY INFORMATION REQUESTED BY THE COUNTY IN VERIFICATION OF THE RECITALS COMPRISING THIS QUALIFICATIONS QUESTIONNAIRE AND THAT THE ANSWERS TO THE FOREGOING QUESTIONS AND ALL STATEMENTS THEREIN CONTAINED ARE TRUE AND CORRECT.

NAME OF COMPANY \_\_\_\_\_

AUTHORIZED SIGNATURE \_\_\_\_\_

PRINTED NAME \_\_\_\_\_

TITLE \_\_\_\_\_

NOTARY

STATE OF \_\_\_\_\_ )

)

COUNTY OF \_\_\_\_\_ )

THE FOREGOING CONTRACT WAS ACKNOWLEDGED BEFORE ME THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2013,

BY \_\_\_\_\_ AS \_\_\_\_\_ OF  
Name Title

\_\_\_\_\_  
Company Name

WITNESS MY HAND AND OFFICIAL SEAL.

MY COMMISSION EXPIRES:

\_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC

**REQUEST for PROPOSALS**  
**for**  
**SOUTH WADSWORTH BOULEVARD (S.H. 121) / WATERTON ROAD**  
**INTERSECTION PROJECT**

**Jefferson County**  
**Division of Transportation & Engineering**  
**Project Number 6-69-03-3652**

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**ATTACHMENTS**

Attachment A	Requirements & Instructions for Utility, Pot Hole & Sidewalk Repair
Attachment B	Draft Contract for Design Engineering Services
Attachment C	Draft Design Scope of Services

## I. INTRODUCTION AND PROJECT OVERVIEW

This Request for Proposals (RFP) entails engineering consulting services necessary for completing the preliminary and final engineering designs for reconstructing the intersection and constructing a traffic signal at the Wadsworth (S.H. 121)/Waterton Road intersection and doing the necessary environmental evaluation for a Categorical Exclusion (CAT EX) clearance from CDOT for the project. The stakeholders that have interests in the project include Jefferson County, Douglas County, CDOT, Lockheed Martin Corporation, Corps of Engineers, Denver Water, the National Audubon Society, and the public. The project will need to follow the National Environmental Policy Act (NEPA) process due to its impacts to CDOT's right-of-way (S.H. 121) and possible impact(s) to Federal Government land (Chatfield Reservoir).

The project is being funded by CDOT's FASTER funds and with Jefferson County's Impact Fee Funds.

Numerous environmental studies were completed as part of the Feasibility Study which will need to be updated for this project. The subject areas of the previous environmental studies were: Historic; Archaeological; Paleontological; Protected Species/Biological Assessment; Wetlands; Air Quality; Noise; Phase I Environmental Site Assessment; and Section 4(f).

Consultants proposing on this RFP should present their methods of how they would approach doing the Preliminary & Final Engineering Designs and getting the necessary environmental clearance. In addition to outlining their approach to the project, a project schedule should be proposed that would meet the goal of having the **right-of-way acquisitions process begin by November, 2014** and **construction beginning in the spring of year 2016**.

The Board of County Commissioners, Jefferson County, shall be the Owner. The Owner's Project Manager for the design phase of the project is Brad Bauer, Special Projects Engineer, Division of Transportation and Engineering.

### Project Background

Traffic impacts from the Roxborough Park developments in Douglas County and the employees at Lockheed Martin Corporation have significantly impacted the safety and operations at the South Wadsworth Boulevard and Waterton Road intersection. This RFP will be used to solicit proposals from Engineering Design Consultants to perform the Preliminary and Final Designs and an environmental evaluation of the traffic signal alternative for the intersection. Jefferson County will be the contracting agency for the project and the Colorado Department of Transportation (CDOT) will assist with issues regarding South Wadsworth Boulevard (State Highway 121).

Jefferson County has identified Waterton Road as needing to be improved to a five-lane minor arterial section which will include four-foot shoulders, on-street bike lanes, and a raised/painted median. The Wadsworth/Waterton Intersection Plans should not preclude Douglas County's widening plans for Waterton Road. Douglas County worked with Denver Water to look for a way of accommodating a pedestrian/bike grade-separated crossing of Waterton Road. The proposed pedestrian/bike underpass could only be achieved by

raising the vertical profile of Waterton Road and locating the proposed underpass north of the existing at-grade crossing.

Douglas County anticipates the need to replace the existing bridge over the South Platte River with two parallel bridges to accommodate the future parkway section. In lieu of building a pedestrian/bike underpass mentioned above, these bridges over the Platte River could be designed such that the new bridge span configuration could provide for a trail/path along both sides of the South Platte River. Douglas County also has plans to construct a separate pedestrian/bike bridge over the South Platte River, located downstream of the existing and proposed replacement structures. This pedestrian/bike bridge over the South Platte River will connect to the High Line Canal Trail.

At a minimum, the design issues that need to be addressed include the following: (This list is general by nature and by no means includes all work activities required under this project and needs to be further refined by the Consultant as part of their proposal.)

- The Consultant will conduct coordination and review sessions with regulatory agencies. The purpose is to clarify the step-by-step process necessary to secure approvals and concurrence for the proposed improvements at the Wadsworth Boulevard/Waterton Road intersection. Significant obstacles should be identified at this stage. This effort is expected to include:
  1. CDOT review and approval processes.
  2. Environmental documentation for the project.
- Public participation is important throughout the design process and will be critical for this project. Public involvement will need to be appropriate for the level of NEPA approval that is required and shall include varying levels of efforts with Jefferson County, Douglas County, CDOT, Lockheed Martin Corporation, Corps of Engineers, Denver Water, the National Audubon Society, recreational users, homeowner organizations, and affected property owners.
- The Consultant shall propose a process and schedule for meetings during the course of the design process. It is expected that the following will be required as a minimum:
  1. Bi-weekly or monthly briefings with project management team.
  2. Meetings with CDOT.
  3. Individual coordination meetings with stakeholders.
  4. One Public Open House Meeting to include citizens, property owners, commuters, and stakeholders.
- The Consultant shall be responsible for the traffic engineering, including analyzing the accident history, traffic volumes and projections, capacity calculations, auxiliary lanes, storage lengths, signage, striping, signalization, and ESAL/EDLA development for pavement design purposes.
- Address the storm water runoff requirements for the proposed intersection improvements to ensure adequate conveyance to major drainage ways without adverse impacts.

- Provide Best Management Practices (BMP's) recommendations to meet Jefferson County's MS4 requirements of the for water quality associated with the preliminary and final designs (i.e. Stormwater Management Plan - SWMP).
- The Consultant shall identify the level of survey required to accomplish the goals of the project.
- Identify utility locations and potential relocation/modifications. Coordinate with various utility entities for proposed improvement plans and issue identifications.
- The consultant selected to perform this work will be provided with the existing topographic survey information which will need to be supplemented with some detailed field surveys.
- The intersection design is to decrease the existing 7% approach grade on northbound Wadsworth to 4% (i.e. exiting Lockheed Martin's Waterton Plant). Add a free flow right-turn lane for northbound Waterton to northbound Wadsworth. Add double left-turn lanes for southbound Wadsworth to southbound Waterton. Add a right-turn lane on South Wadsworth Boulevard for northbound Wadsworth to southbound Waterton. Widening Waterton Road to accept the two left-turn lane traffic from Wadsworth. Extend the two existing culverts for Brush Creek to accommodate the roadway widening for both South Wadsworth Boulevard and Waterton Road. The condition of the existing triple 60-inch CMP under Waterton Road should be evaluated to see if replacing it with a concrete box culvert (approximately 10'x6') is a better long term solution. (The existing concrete box culver for Brush Creek under South Wadsworth Boulevard is owned and maintained by Lockheed Martin Space Systems Company.)
- The design is to be done in AutoCAD, not in T-MOSS/In-ROADS computer software.

The draft consultant Design Contract will include the final version of the Scope of Services for completing the preliminary and final designs as an attachment as determined during the proposal evaluation and selection process. The Design Contract as well as processing of payments will need to follow all CDOT requirements. In addition, **any requirements imposed upon Jefferson County in the Intergovernmental Funding Agreement with CDOT (i.e. for the FASTER Construction Grant) with regards to contracting with a consultant to perform services for this project will need to be strictly adhered to by the Consultant.** There is **no Underutilized Disadvantaged Business Enterprise (UDBE) minimum goal/requirement for this project, hence the goal is zero percent (0%).**

The following reference documents are to be used as a basis for design criteria, details, and specifications. Jefferson County design criteria will take precedence over criteria from other agencies. However, since the majority of the improvements will be constructed within CDOT's right-of-way, CDOT criteria will govern when applicable. All sources shall be the current edition.

- Jefferson County Roadway Design & Construction Manual
- Jefferson County Construction Standards and Notes

- Jefferson County Storm Drainage Design and Technical Criteria
- Colorado Department of Transportation, Design Guide
- Colorado Department of Transportation, Right-of-Way Manual
- Colorado Department of Transportation, Standard Specifications for Road and Bridge Construction
- Colorado Department of Transportation, Standard Plans
- Colorado Department of Transportation, CADD Manual
- American Association of State Highway and Transportation Officials, Roadside Design Guide
- American Association of State Highway and Transportation Officials, A Policy on the Geometric Design of Highways and Streets
- American Association of State Highway and Transportation Officials, current LRFD Bridge Design Manual and interims.
- Colorado Department of Transportation, Staff Bridge Design Memos & Details
- US Army Corps of Engineers, Flowage Easement Requirements
- Transportation Research Board, Highway Capacity Manual
- Jefferson County Zoning Resolution (Section 15: Land Disturbance) (Section 48: F-P Flood Plain Overlay District)
- Volume 3, Urban Drainage Criteria Manual for Best Management Practices
- Manual on Uniform Traffic Control Devices
- FEMA, Flood Insurance Rate Map, Jefferson County, Colorado (Unincorporated Areas)
- FEMA, Flood Insurance Study for Jefferson County

All consultant firms are required to define the project to their own satisfaction by examination of this document; resource material referenced herein, investigation of on-site conditions, and any other appropriate measures, as determined by the Consultant. In general, the Consultant will be responsible for surveying, preparing preliminary and final engineering plans suitable to bid the project for construction bids, and to complete the assessment of impacts to the environment.

## II. REQUIRED QUALIFICATIONS

All firms submitting a proposal must be Professional Engineering firms, with at least one principal engineer being a resident and registered Professional Engineer of the State of Colorado. The consulting firm shall agree not to refuse to hire, discharge, promote, demote or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, religion, creed, color, gender, national origin, ancestry, or physical or mental disability. In addition, the following minimum qualifications must be met:

1. The firm must be organized for the purpose of providing professional engineering consulting and other services and must have previous experience with proven effectiveness in conducting successful highway roadway engineering plans and environmental studies, and other similar services that are described herein.
2. The firm must have a local central office capability in order to provide satisfactory delivery of services.

3. The firm must have a proven ability for an immediate contract start-up as evidenced by past performance and current resources and personnel.
4. The firm must have evidence of their firm's ability to provide the insurance requirements specified herein.

### **III. SELECTION CRITERIA**

Each proposal will be evaluated in six categories:

1. Comprehensive definition and understanding of design problems/challenges, environmental issues, and project approach. **(50%)**
2. Past experience/qualifications of the firm. **(15%)**
3. Qualifications of key engineering and/or planning individuals. **(15%)**
4. Project schedule. **(5%)**
5. Current and projected work load. **(10%)**
6. Detailed description of deliverables. **(5%)**

### **IV. METHOD OF AWARD**

All proposals will be reviewed by the Project Selection Team. Based on the ranking of the proposals, formal interviews of the top three firms may, or may not, be conducted. These firms will be asked to supplement their initial proposals with their recommendations for completing this work. The Project Selection Team will select one of these two firms and enter into fee and Scope of Services negotiations in order to finalize a contract with the firm that receives the highest ranking. If an agreement cannot be reached on the fee for services and/or scope of work, then the County will cease negotiations with the first firm and initiate negotiations with the second firm. This will continue until an agreement is reached with a firm.

The award will be made to the firm whose proposal is determined to be most advantageous to Jefferson County based on the proposal criteria provided herein and within the budget available for the project.

The County reserves the right to award this Contract not necessarily to the firm with the lowest price, but to the firm that demonstrates the best ability to fulfill the requirements of this project. The successful firm will be chosen based on the qualifications and selection criteria discussed in Sections II, III, IV, V and VI of this document.

The successful firm shall commence work only after execution of an acceptable contract and authorization from Jefferson County. The successful firm will perform all services indicated in the RFP, proposal, and Scope of Services in compliance with the negotiated contract.

**V. METHOD OF SUBMITTAL**

Proposals shall be submitted in bound form, with **ten (10) identical copies** each, and **one unbound original**. In addition, all copies of the draft Scope of Services are to be submitted with any tracking changes/revisions. The unbound original and all copies shall be submitted to:

Jefferson County Purchasing  
Attn: Martin Harter  
100 Jefferson County Parkway; Suite 4500  
Golden, CO 80419

RE: Project Number 3175W-HT; Wadsworth/Waterton Intersection Study

**Submittals must be received prior to 11:00 AM, on November 4, 2013.**

All proposals submitted shall become the property of Jefferson County and will become public record. Jefferson County reserves the right to reject any and all proposals in whole, or in part, received in response to this RFP.

Jefferson County will not pay for any information herein requested, nor is it liable for any costs incurred by the participating firms.

Firms whose proposals do not meet the mandatory requirements may be considered non-compliant and may be rejected.

**VI. FORM OF PROPOSAL**

**The Consultant's proposal must include the County's draft Scope of Services with any tracking changes that are made by the Consultant that the Consultant deems to be appropriate to achieve the project's objectives.**

The proposal shall include the following items in the order listed herein:

1. Cover letter indicating interest in the project.
2. Detailed Project Approach and Detailed Draft Design Scope of Services with any tracking changes. The selection team will review the Consultant's project approach and Scope of Services to ascertain the Consultant's understanding of the project and issues, to assure that a proper effort will be devoted to the project, and to better understand the Consultant's special perspectives on approach, techniques, and work efforts.
3. Detailed description and list of deliverables to be provided. As a minimum the list should include preliminary and final design plans, Phase II and Phase III Drainage Reports, Geotechnical Soils and Pavement Design Report, environmental documentation reports; hand written notes,

electronic field notes, meeting minutes/all correspondence; hard and electronic design data; and hard and electronic copies of the plans.

4. Staffing. The Consultant shall prepare an organizational staffing chart, and shall list major staff assignments to the project, including all sub-consultants to be used (if any). Resumes or experience summaries of key individuals shall be included, with emphasis on previous experience on similar projects in similar roles.
5. Project Schedule. The Consultant shall provide a bar chart in the proposal, which will show the project schedule from selection of a Consultant, through construction. Specifically, the Consultant will indicate his requirements in calendar days to perform the following tasks:
  - Data Collection
  - Engineering Analysis
  - Public Involvement
  - Engineering Design (Preliminary & Final)
  - Environmental Documentation/Clearance
  - Right-of-Way Acquisition
  - Construction

Although they are beyond his control, the Consultant shall also state in his proposal and incorporate into their project schedule, assumptions concerning County, CDOT, and other stakeholder review times.

6. Draft Design Contract. The Consultant shall review the draft contract and state a willingness to enter into this contract, subject to any possible changes necessary for the firm to comply with the proposal and list them as "Proposed Changes to the Contract for Design Engineering Services". Specific statements must be made concerning contract issues. General statements such as "in general agrees with all of contractual provisions..."; "... have identified some minor items to resolve..."; "...do not anticipate any difficulty in negotiating these issues..."; are not considered acceptable responses. All contractual issues must be clearly identified in this portion of the proposal. Failure to do so may result in cancellation of contract award. The Consultant will be judged upon the thoroughness of review of the draft contract and the specificity of comments and changes. The final version of the contract will include the final Scope of Services as an attachment/exhibit.
7. Experience of the Firm. The Consultant may include up to four pages of information on recent, relevant similar projects, specifically targeted to projects on which key staff has worked, particularly projects completed for public agencies. The Consultant shall discuss their capability and past experience associated with moving projects forward, and list their capability of working with various entities to accomplish the successful completion of projects. The Consultant shall specify which key individuals worked on each project and their respective roles in the project.

**VII. REQUIREMENTS/INSTRUCTIONS FOR UTILITY/POT HOLE/SIDEWALK REPAIR**

The requirements and instructions for any utility pot hole repair work, including any sidewalk repairs, that may be necessary as part of the design process, is shown in Attachment A.

**VIII. DRAFT CONTRACT**

The written agreement between the successful Consultant and the County will be in the form of the draft Contract contained in Attachment B. The Consultant must examine it, and his proposal must state his willingness to enter into this agreement along with any special provisions proposed to amend the text.

**IX. DRAFT DESIGN SCOPE OF SERVICES**

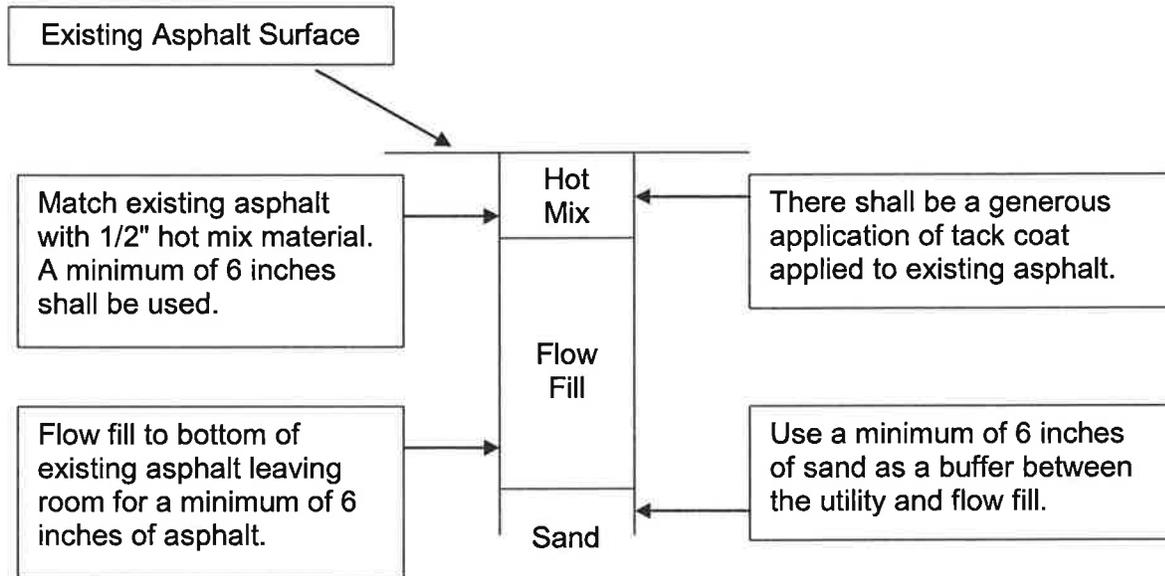
The Consultant's proposal must include the County's draft Design Scope of Services with any tracking changes that are made by the Consultant that the Consultant deems to be appropriate to achieve the project's objectives.

# **ATTACHMENT A**

## **Requirements & Instructions for Utility, Pot Hole & Sidewalk Repair**

## Requirements & Instructions for Utility, Pot Hole & Sidewalk Repair

Potholes shall be repaired as shown in the following diagram of a pothole from a side view:



Sidewalks and curbstones shall be repaired by replacing full stones. No partial stones will be allowed.

All repairs and/or damages to Jefferson County's infrastructure in County right-of-way are subject to County Regulatory Policy 5.50 (Street and Road Cut Permits and Required Bonds). All repairs will be placed on a 2-year warranty. If at any time the methods and means of repair are deemed unsatisfactory, the County reserves the right to make changes to those practices.

## **ATTACHMENT B**

### **Draft Contract for Design Engineering Services (Wadsworth-Waterton Canyon Intersection)**

**CONTRACT FOR DESIGN ENGINEERING SERVICES  
(Wadsworth-Waterton Canyon Intersection)**

THIS CONTRACT FOR DESIGN ENGINEERING SERVICES, dated for reference purposes only this \_\_\_\_\_ day of \_\_\_\_\_, 2013, is made and entered into by and between the COUNTY OF JEFFERSON, STATE OF COLORADO, a body politic and corporate (the "County") and \_\_\_\_\_ (the "Consultant").

**RECITALS**

A. The County desires the service of a consultant to assist with the design of the Wadsworth - Waterton Canyon Intersection Project, T&E Project No. 6-69-03-3652, as more fully described in the Scope of Work attached hereto as Exhibit A and incorporated herein.

B. The Consultant is qualified and is ready and willing to perform in accordance with the terms and conditions of this Contract.

**AGREEMENT**

NOW, THEREFORE, for and in consideration of the covenants and conditions set forth herein, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the County and the Consultant agree as follows:

1. **CONTRACT DOCUMENTS.** The "Contract Documents" shall consist of the following:

- (A) This Contract;
- (B) The Scope of Work, attached hereto as Exhibit A;
- (C) Consultant's Hourly Rates, attached hereto as Exhibit B;
- (D) Consultant's Work Hour and Fee Summary, attached hereto as Exhibit C; and
- (E) Insurance Requirements, attached hereto as Exhibit D,

all of which are incorporated herein by this reference whether or not attached hereto. If there is any conflict between this Contract and the other Contract Documents, this Contract shall control.

2. **DESCRIPTION OF SERVICES.** The Consultant shall provide complete and timely performance of everything described in or reasonably implied from the Contract Documents (the "Services"). The Consultant warrants that it is fully qualified to perform the Services and shall perform the Services in accordance with the professional standards of the industry and in strict accordance with the provisions of the Contract Documents. The Consultant

shall complete each task and service in strict accordance with the schedule established by the County Representative. No adjustment or modification of the Contract Documents shall be allowed for any misunderstanding of the Services or of the terms and provisions contained in the Contract Documents.

3. **AUTHORIZED REPRESENTATIVES.** The County designates Brad Bauer, P.E., as the "County Representative" under this Contract. The Consultant designates \_\_\_\_\_ as the "Consultant Representative" and \_\_\_\_\_ as "Key Personnel" under this Contract. The Consultant Representative shall have the authority to bind the Consultant with respect to the Services and shall be present at the work site as necessary to assure the Consultant's satisfactory performance. The Consultant Representative shall also be responsible for advising the County Representative of the status of the Services and agrees to take direction only from the County Representative and to comply promptly and fully with the reasonable requests and directives issued by the County Representative from time to time. The County may change its representative at any time by notice to the Consultant. The Consultant shall not replace the Consultant Representative or other Key Personnel unless: (a) the County requests a replacement, or (b) the Consultant terminates the employment of the Consultant Representative or other Key Personnel and provides a satisfactory substitute. The County must approve a substitute Consultant Representative and Key Personnel, and, if no substitute is acceptable, the County may terminate this Contract.

4. **KNOWLEDGE OF THE SERVICES.** The Consultant is fully informed regarding the Services to be provided pursuant to this Contract and any materials or equipment required. No adjustment or modification shall be allowed for misunderstanding of the Services or of the provisions contained in this Contract.

5. **APPROVAL AND ACCEPTANCE OF SERVICES.** The County Representative shall be the sole judge of the acceptability of the Services by the Consultant and the sufficiency of any supporting data submitted by the Consultant. If, at the sole discretion of the County, conferences with the Consultant are necessary or desirable to explain or correct Services, the Consultant shall make no additional charge for time or costs for attendance at such conference or for making the required explanations or corrections.

6. **PERIOD OF PERFORMANCE.** The Consultant shall begin the Services on or before the fifth calendar day after receipt of the notice to proceed (the "Start Date") and shall complete the Work and fulfill all of its other obligations no later than \_\_\_\_\_ (the "Completion Date"). All time limits are of the essence in this Contract. No Services on this project shall be performed by the Consultant until a notice to proceed for that project is given by the County Representative. The Consultant acknowledges that a notice to proceed will not be issued until the County has received acceptable certificates of insurance.

7. **PRICE AND PAYMENT.** In consideration of the satisfactory performance of the Services, the County shall pay the Consultant the not-to-exceed sum of \_\_\_\_\_ (\$ \_\_\_\_\_) (the "Contract Price") in accordance with the rates set forth in the Consultant's Bid Sheet attached hereto.

The Consultant shall submit to the County Representative a monthly invoice

itemizing the Services rendered in detail sufficient for the County to verify the appropriateness of the invoice. The invoice shall be subject to review and approval by the County Representative. The County shall pay all amounts properly invoiced and documented within thirty (30) days of receipt of the invoice. The County shall not be required to pay disputed items until the dispute is resolved. Payment of any invoice shall not act as a waiver of the County's right to recover in full any over-payment revealed by any subsequent audit or inspection. The Consultant shall not be entitled to reimbursement for meals, entertainment or other administrative or direct costs.

8. **CHANGES IN SERVICES.** The County Representative, by written instructions issued to the Consultant, may extend the Start Date or the Completion Date or make such changes in the Services as may be necessary to accomplish the purposes intended to be provided under this Contract. The County Representative shall also have such further authority, if any, as may be specifically granted or authorized by the Board of County Commissioners to initiate or process change orders affecting the Contract Price or quantity of services to be performed.

This Contract contains the entire agreement of the parties and may not be modified or amended except an agreement in writing signed by the parties. The Consultant shall not commence any changed or increased Services prior to receipt of the required duly executed change order or contract amendment. The County shall have no duty or obligation to compensate or reimburse the Consultant for any additional Services not specifically authorized as provided herein.

9. **TERMINATION.** The County reserves the right to terminate this Contract, in whole or in part, with or without cause by written notice to the Consultant. In the event of termination, the Consultant shall incur no additional expenses and shall perform no further Services for the County under this Contract after the date of receipt of the notice of termination, unless otherwise specified by the County. The County shall pay the Consultant for all Services satisfactorily performed prior to receipt of the notice of termination and for other services required by the County to be completed prior to termination and satisfactorily performed. In the event that the County terminates this Contract for cause, the provisions of the paragraph titled "Damages" shall apply.

10. **DAMAGES.** If the Consultant fails to comply with any material provision of the Contract, the Consultant shall be liable for any and all damages, including without limitation, the cost of procuring similar supplies or services and all other costs and expenses incurred by the County because of such failure. The Consultant's failure substantially to complete the Services in conformance with this Contract shall result in damages suffered by the County, including, without limitation, the difference between the cost to complete the Services as provided under this Contract and the actual costs to complete the Services using a substitute consultant, together with any other expenses incurred, as determined by the County. The County may offset any amounts owed to it as damages against any monies due and owing to the Consultant under this Contract. In addition, the County shall be entitled to any other rights and remedies available to it in law or equity.

11. **NON-ASSIGNMENT, SUBCONTRACTORS, PERSONAL SERVICES.** The

Consultant shall not assign this Contract or employ any sub-contractor without the prior written approval of the County Representative. The Consultant shall be responsible for the acts and omissions of its agents, employees and sub-contractors. The Consultant shall bind each sub-contractor to the terms of this Contract. The County may terminate this Contract if the Consultant assigns or subcontracts this Contract without the prior written consent of the County Representative, and any such assignment or subcontracting shall be a material breach of this Contract. This Contract is a personal services contract pursuant to which the County intends to obtain the personal services of the Consultant Representative and any other Key Personnel designated whose knowledge, skills and experience are deemed essential to satisfactory performance of the Services.

12. **INDEPENDENT CONTRACTOR STATUS; PAYMENT OF TAXES AND UNEMPLOYMENT INSURANCE.** The Consultant is an independent contractor and is not an agent, servant or employee of the County. The Consultant and its employees are not entitled to workers' compensation benefits through the County. The Consultant is solely responsible for necessary and adequate workers' compensation insurance and shall be responsible for withholding and paying all federal and state taxes. The Consultant and its employees are not entitled to unemployment insurance benefits unless unemployment compensation coverage is provided by an entity other than the County. The Consultant hereby acknowledges full and complete liability for and timely payment of all local, state and federal taxes imposed including, without limitation, tax on self-employment income, unemployment taxes and income taxes.

13. **INSURANCE.** The Consultant and its subconsultants shall purchase and maintain such insurance in a company or companies licensed to do business in the State of Colorado as will protect them from claims which may arise out of or result from operations under the Contract, whether such operations be by themselves or by any subconsultant or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. The Consultant shall provide insurance as required in Exhibit D attached hereto and incorporated herein. All certificates of insurance required by this Contract shall be submitted by the Consultant prior to commencement of the Services to:

Transportation and Engineering Division  
Attn: Brad Bauer  
100 Jefferson County Parkway, Suite 3500  
Golden, Colorado 80419

Within a reasonable time after submittal, the County shall either approve the certificates of insurance or notify the Consultant of any unacceptable conditions stating the specific reasons therefor. The Consultant shall promptly re-submit an acceptable certificate of insurance, which the County shall review within a reasonable time. In addition, certificates must indicate the Jefferson County Bid Number.

14. **INDEMNIFICATION.** The Consultant shall indemnify and hold the County and its officials, agents and employees harmless from and against any and all claims, damages, losses, injuries and expenses (including reasonable attorneys' fees), relating to or arising out of: (1) any negligent act or omission or willful misconduct of the Consultant, its officers, employees,

sub-Contractors, or agents in connection with the performance of the Services; (2) any breach of a covenant, representation or warranty made by the Consultant under this Contract; and (3) use by the Consultant of any intellectual property in connection with the Services (whether such intellectual property is owned by the Consultant or a third party) or the incorporation by the Consultant of intellectual property into the Services.

15. **EQUAL EMPLOYMENT OPPORTUNITY.** The Consultant shall not refuse to hire, discharge, promote or demote, or discriminate in matters of compensation against any person otherwise qualified solely because of race, creed, sex, color, national origin or ancestry, religion, disability, age, sexual orientation, or any other basis prohibited by federal, state or local law.

16. **ILLEGAL ALIENS/AUTHORIZATION TO WORK.** If the Consultant has any employees or subcontractors, the Consultant shall comply with C.R.S. §8-17.5-101, et seq., regarding Illegal Aliens - Public Contracts for Services, and this Contract. By execution of this Contract, the Consultant certifies that it does not knowingly employ or contract with an illegal alien who will perform work under this Contract and that Consultant will participate in either the E-Verify Program or Department Program in order to confirm the eligibility of all employees who are newly hired for employment to perform work under this Contract.

(a) The Consultant shall not:

- (i) Knowingly employ or contract with an illegal alien to perform work under this Contract; or
- (ii) Enter into a contract with a subcontractor that fails to certify to the Consultant that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Contract.

(b) The Consultant has confirmed the employment eligibility of all employees who are newly hired for employment to perform Services under this Contract through participation in either the E-Verify Program or Department Program.

(c) The Consultant shall not use either the E-Verify Program or Department Program to undertake pre-employment screening of job applicants while this Contract is in effect.

(d) If the Consultant obtains actual knowledge that a subcontractor performing work under this Contract knowingly employs or contracts with an illegal alien, the Consultant shall:

- (i) Notify the subcontractor and the County within three days that the Consultant has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and
- (ii) Terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to the preceding sub-subparagraph of this subparagraph, the subcontractor does not stop

employing or contracting with the illegal alien; except that the Consultant shall not terminate the contract with the subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

(e) The Consultant shall comply with any reasonable request by the Department of Labor and Employment made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. §8-17.5-102(5).

(f) If the Consultant violates this provision of this Contract, the County may terminate the Contract for a breach of contract. If the Consultant is so terminated, the Consultant shall be liable for actual and consequential damages to the County as required by law.

(g) The County will notify the Office of the Secretary of State if the Consultant violates this provision of this Contract and the County terminates the Contract for such breach.

17. **NON-APPROPRIATION.** The payment of County obligations in fiscal years subsequent to the current year is contingent upon funds for this Contract being appropriated and budgeted. If funds for this Contract are not appropriated and budgeted in any year subsequent to the fiscal year of execution of this Contract, this Contract shall terminate. The County's fiscal year is currently the calendar year.

18. **WARRANTIES.** The Consultant represents and warrants that:

a) It is fully qualified to perform the Services and will perform the Services in a timely, accurate, and competent manner in accordance with the professional standards of the industry; provided that this warranty shall not abrogate any independent duty of care owed by the Consultant to the County;

b) Any methodologies or programs or other intellectual property utilized under this Contract were independently developed by it or duly licensed from third parties and shall neither infringe upon nor violate any patents, copyrights, trade secrets or other proprietary or intellectual property rights of a third party;

c) If it is an entity, it is duly organized, validly existing and in good standing under the laws of the State of Colorado;

d) The execution, delivery and performance of this Contract by the Consultant does not and will not: (1) require the consent of any undisclosed person or entity, (2) violate any legal requirement or (3) conflict with, or constitute a breach or violation of (a) its entity's organizational documents, if any, or (b) the terms or provisions of any other agreement, instrument or understanding by which the Consultant is bound or affected.

19. **MISCELLANEOUS PROVISIONS.**

a) Compliance with Laws. The Consultant shall observe and comply with all Federal, State and local laws, regulations and ordinances that affect the Consultant or those employed or engaged by it, the materials or equipment used and the performance of the Services. The Consultant shall procure all necessary approvals, licenses and permits at its own expense.

b) Officials Not to Benefit. No elected or employed member of the County government shall be paid or receive, directly or indirectly, any share or part of this Contract or any benefit that may arise therefrom.

c) Conflict of Interest. The Consultant shall not knowingly perform any act that would conflict in any manner with the performance of the Services. The Consultant certifies that it is not engaged in any current project or business transaction, directly or indirectly, nor has it any interest, direct or indirect, with any person or business that might result in a conflict of interest in the performance of Services.

d) County's Ownership of Documents/Deliverables. Any data, documents or other things or information provided by the County to the Consultant (the "County Documents") or to which the Consultant has access during the performance of the Services and any reports, drawings, results, conclusions of the Services or other writings or products produced by the Consultant (the "Deliverables") shall be and remain the sole property of the County at all times; and the Consultant shall not use any of the Deliverables or County Documents for any other purpose. The Deliverables shall also constitute a "work made for hire," and the County shall retain all right, title and interest in and to both the County Documents and the Deliverables. The Consultant shall provide to the County all of the Deliverables and return all County Documents by the Completion Date or the earlier termination of this Contract. All County Documents and Deliverables shall be deemed confidential. The Consultant shall not disclose to any third party any County Document or Deliverable without the prior written approval of the County unless required under the Colorado Public Records Act or other law.

e) Governing Law, Forum, Venue. This Contract and the rights and duties of the parties hereunder shall be interpreted in accordance with the laws of the State of Colorado applicable to contracts made and to be performed entirely within such State without regard to its conflict of law provisions; and the Courts of such State shall have sole and exclusive jurisdiction over any disputes or litigation arising hereunder. Venue for any and all legal actions arising hereunder shall lie in the District or County Court in and for the County of Jefferson, State of Colorado.

f) Notice. Any notice or communication given pursuant to this Contract shall be given in writing, either in person or by first class, postage prepaid mail. If given in person, notice shall be deemed given when actually given. If given by mail, notice shall be deemed given three calendar days after the notice was deposited in the mail.

Notice to the Consultant shall be delivered or mailed to:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

or to such other address as the Consultant may from time to time designate by notice to the County.

Notice to the County shall be delivered or mailed to:

Director of Transportation & Engineering  
100 Jefferson County Pkwy., Suite 3500  
Golden, CO 80419-3500

with a copy to:

Jefferson County Attorney  
100 Jefferson County Pkwy., Suite 5500  
Golden, Colorado 80419-5500

or to such other address as the County may from time to time designate by notice to the Consultant.

g) Survival. Notwithstanding anything to the contrary, the parties understand and agree that all terms and conditions of this Contract that require continued performance or compliance beyond the termination or expiration of this Contract, including without limitation the indemnification and warranty provisions, shall survive such termination or expiration and shall be enforceable against a party if such party fails to perform or comply with such term or condition.

h) Sales Tax Exemption. The Consultant will not be required to pay Colorado State sales and use taxes for the Services. The Consultant may obtain a sales tax exemption permit from the State of Colorado, Department of Revenue, if necessary, to obtain materials for the Services without the payment of Colorado State sales and use tax.

i) Waiver. This Contract or any of its provisions may not be waived except in writing by a party's authorized representative. The failure of a party to enforce any right arising under this Contract on one or more occasions will not operate as a waiver of that or any other right on that or any other occasion.

j) No Third Party Beneficiaries. The enforcement of this Contract and all rights of action relating to such enforcement, shall be strictly reserved to the County and the Consultant. Nothing contained in this Contract shall give or allow any claim or right of action whatsoever by any other third person, nor shall anything contained in this Contract be construed as a waiver of any provision of the Colorado Governmental Immunity Act, C.R.S. §24-10-101, et. seq., as amended. It is the express intention of the County and the Consultant that any such person or entity, other than the County or the Consultant, receiving services or benefits under this Contract shall be deemed an incidental beneficiary only.

k) Records Retention. The Consultant shall maintain all records, including working

papers, notes and financial records, which records shall be available to the County for inspection and audit for a period of three (3) years from the date of termination of the Contract unless the Consultant is notified in writing by the County of the need to extend the retention period. Copies of such records shall be furnished to the County upon request without charge by the Consultant.

l) Execution by Counterparts; Electronic Signatures. This Contract may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument. The Parties approve the use of electronic signatures for execution of this Contract. Only the following two forms of electronic signatures shall be permitted to bind the Parties to this Contract: (1) Electronic or facsimile delivery of a fully executed copy of a signature page; (2) The image of the signature of an authorized signer inserted onto PDF format documents. All documents must be properly notarized, if applicable. All use of electronic signatures shall be governed by the Uniform Electronic Transactions Act, C.R.S. §§24-71.3-101 to -121.

m) Proper Execution. Each party represents that all procedures necessary to authorize such party's execution of this Contract have been performed and that the person signing for such party has been authorized to do so.

*[The remainder of this page is intentionally left blank.]*

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed.

ATTEST:

COUNTY OF JEFFERSON  
STATE OF COLORADO

By \_\_\_\_\_  
Deputy Clerk & Recorder

By \_\_\_\_\_  
Donald Rosier, Chairman  
Board of County Commissioners

APPROVED AS TO FORM:

By \_\_\_\_\_  
Assistant County Attorney

STATE OF COLORADO  
COUNTY OF JEFFERSON

The foregoing Contract for Design Engineering Services was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2013 by Donald Rosier as Chairman of the Board of County Commissioners for the County of Jefferson, State of Colorado.

\_\_\_\_\_  
Notary's official signature

\_\_\_\_\_  
Commission expiration date

CONSULTANT:

\_\_\_\_\_

By \_\_\_\_\_  
Name/Title \_\_\_\_\_

STATE OF COLORADO  
COUNTY OF \_\_\_\_\_

The foregoing Contract for Design Engineering Services was acknowledged before me this  
\_\_\_\_\_ day of \_\_\_\_\_, 2013 by \_\_\_\_\_ as \_\_\_\_\_ of  
\_\_\_\_\_.

\_\_\_\_\_  
Notary's official signature

\_\_\_\_\_  
Commission expiration date

**Exhibit A**

Scope of Work

See attached.

**Exhibit B**

Consultant's Hourly Rates

See attached.

**Exhibit C**

Consultant's Work Hour and Fee Summary

See attached.

**EXHIBIT D**  
**INSURANCE REQUIREMENTS**

	<b>INSURANCE REQUIREMENTS –</b>	<b>Professional Services</b>
I	<b>Prior to the commencement of any work the vendor shall forward certificates of insurance to the department specified in the award document.</b>	
II	<b>Certificate Holder must be Jefferson County Colorado.</b>	Required
III	Insurance - Minimum requirement	
	Workers compensation - statutory limits provided by insurance carrier that is licensed to do business in Colorado. Employer's liability - \$100,000 each accident \$500,000 disease policy limit \$100,000 disease each employee	Required UNLESS SOLE PROPRIETORSHIP
	Commercial General Liability - on a Comprehensive Form (including premises/operations/ independent contractors; product and completed operations.) The policy must not exclude or reduce coverage for mobile equipment, Broad Form property damage; personal injury; blanket contractual; and death. Personal injury coverage must have the employee exclusion deleted.	Required \$1M ea occurrence \$1M general aggregate
	Professional liability/errors and omissions (E&O) limits	\$1,000,000 each occurrence/ \$2,000,000 agg
	Commercial automobile liability insurance – including hired and non-owned vehicles, statutory Colorado uninsured/under-insured motorist liability coverages. (If autos are used in the performance of work under this agreement.) Combined single limit for bodily injury and property damage.	\$1M CSL per accident
	<b>Jefferson County must be added as an additional insured to all applicable liability policies.</b>	Required
	All deductibles or self-insured retentions (SIRs) in excess of \$5,000 must be listed on the certificate of insurance	Required
	Certificates of insurance on all policies to the county shall provide written notice of not less than <b>30 days</b> prior to cancellation or change in coverage	Required
	The insurance requirements specified by the county shall remain in effect for the full term of the contract and/or agreement and any extension thereof. Updated Certificates of Insurance shall be sent to the county during the full term of the contract and/or agreement and any extension thereof.	Required
	The county reserves the right to reject any insurer it deems not financially acceptable on insurance industry resources. Property and liability insurance companies shall be licensed to do business in Colorado and shall have an A.M. Best rating of not less than A- / VII. Additionally the county reserves the right to reject any insurance with relatively large deductibles or self-insured retentions (SIRs), deemed by the county to pose too high a risk based on the size of the contractor, financial status or rating of the contractor, or based on the size or type of the project and the exposure.	Required
IV	Any deviations below the standards given above must be approved by Jefferson County Risk Management	Required
V	<b>Any subcontractors must meet the same insurance requirements for the contract or purchase order unless Risk Management has approved a deviation</b>	<b>Required</b>

# ATTACHMENT C

## Draft Design Scope of Services

Proposals shall be organized to follow this general outline.

Sub-consultants are to be named in the task or sub-task heading. A brief narrative may be added at the beginning of each task to clarify scope and approach, or to address the evaluation criteria. The Consultant may expand, reduce and modify this draft Design Scope of Services as they see appropriate to achieve the project objectives and provide their own detailed Scope of Work. Any changes to the attached draft Design Scope of Services need to be documented with a “tracking” version (digital and hard copy) of the revised work scope and submitted to the County.

Tasks 1, 2 and 3 are to be the “Lump Sum” Base Services, and Task 4 is to be done on a “Time and Materials” basis as “Additional Services”.

**DRAFT SCOPE OF SERVICES  
BASE SERVICES  
PRELIMINARY AND FINAL ENGINEERING DESIGN  
FOR  
SOUTH WADSWORTH AVENUE/WATERTON ROAD INTERSECTION**

**Jefferson County Project Number 6-69-03-3652  
September 24, 2013**

**PROJECT DESCRIPTION**

The project is generally described as follows:

Jefferson County will be the contracting agency for the project and the Colorado Department of Transportation (CDOT) will assist with issues regarding South Wadsworth Boulevard (State Highway 121).

This project consists of the Preliminary and Final Design services for roadway, traffic signal and drainage improvements for the South Wadsworth Avenue/Waterton Road intersection.

The intersection improvement project is scheduled to start construction in the spring of **2016**.

Traffic impacts from the Roxborough Park developments in Douglas County and the employees at Lockheed Martin Corporation have significantly impacted the safety and traffic operations at the South Wadsworth Boulevard and Waterton Road intersection.

The project consists of completing the Preliminary and Final Engineering design services for constructing a traffic signal at the Wadsworth (S.H. 121)/Waterton Road intersection and doing the necessary environmental evaluation for a Categorical Exclusion (CAT EX) clearance from CDOT for the project. The known stakeholders that have interests in the project include Jefferson County, Douglas County, CDOT, Lockheed Martin Corporation, Corps of Engineers, Denver Water, the National Audubon Society, and the public. The project will need to follow the National Environmental Policy Act (NEPA) process due to its impacts to CDOT's right-of-way (S.H. 121) and possible impact(s) to Federal Government land (Chatfield Reservoir).

The project is being funded by CDOT's FASTER funds and with Jefferson County's Impact Fee Funds.

Numerous environmental studies were completed as part of the Feasibility Study for the intersection which will need to be updated for this project. The subject areas of the previous environmental studies were: Historic; Archaeological; Paleontological; Protected Species/Biological Assessment; Wetlands; Air Quality; Noise; Phase I Environmental Site Assessment; and Section 4(f). The U.S. Fish and Wildlife Service has determined that the critical habitat for the Preble's Meadow Jumping Mouse is the

South Platte River plus 459 feet outward on each side of the river.

The purpose of the project is to provide safety and capacity improvements for the Wadsworth/Waterton intersection. The intersection is to be modified to decrease the existing approach grade northbound on Wadsworth from 7% to 4%; add a new traffic signal at the intersection; add a free flow right-turn lane for northbound Waterton to northbound Wadsworth; add double left-turn lanes for southbound Wadsworth to southbound Waterton; and widening Waterton Road to accept the two left-turn lanes from Wadsworth. The modified intersection will include widening the two existing culverts for Brush Creek to accommodate the roadway widening for both South Wadsworth Boulevard and Waterton Road. The condition of the triple 60-inch CMP under Waterton Road should be evaluated to see if replacing it with a concrete box culvert (approximately 10'x6') is a better long term solution. (The existing box culvert for Brush Creek under South Wadsworth Boulevard is owned and maintained by Lockheed Martin Space Systems Company.)

Waterton Road is designated as a Minor Arterial Road (i.e. four through lanes with a raised/painted median with on-street bike lanes). Because of the constraint of the existing Denver Water Waterton Plant building improvements, geometrically said widening of Waterton Road should occur mostly east of Denver Water's existing property line.

More specifically the design is to include:

- The Engineer shall be responsible for the traffic engineering, including analyzing the accident history, traffic volumes and projections, making the intersection capacity calculations, designing the auxiliary lanes, storage lengths, signage, striping, signalization, and ESAL/EDLA development for pavement design purposes.
- Address the storm water runoff requirements for the proposed intersection improvements to ensure adequate conveyance to major drainage ways without adverse impacts.
- Provide Best Management Practices (BMP's) recommendations to meet Jefferson County's MS4 requirements for the water quality associated with the preliminary and final designs (i.e. Stormwater Management Plan - SWMP).
- The Engineer shall identify the level of survey required to accomplish the goals of the project. The Engineer selected to perform this work will be provided with the existing topographic survey information (one-foot contour intervals) which will need to be supplemented with some detailed field surveys.

- Identify utility locations and potential relocation/modifications. Coordinate with various utility entities for proposed improvement plans and issue identifications.
- The intersection design is to decrease the existing 7% approach grade on northbound Wadsworth to 4% (i.e. exiting Lockheed Martin's Waterton Plant). Add a free flow right-turn lane for northbound Waterton to northbound Wadsworth. Add double left-turn lanes for southbound Wadsworth to southbound Waterton. Add a right-turn lane on South Wadsworth Boulevard for northbound Wadsworth to southbound Waterton. Widening Waterton Road to accept the two left-turn lane traffic from Wadsworth. Extend the two existing culverts for Brush Creek to accommodate the roadway widening for both South Wadsworth Boulevard and Waterton Road. The condition of the existing triple 60-inch CMP under Waterton Road should be evaluated to see if replacing it with a concrete box culvert (approximately 10'x6') is a better long term solution. (The existing concrete box culver for Brush Creek under South Wadsworth Boulevard is owned and maintained by Lockheed Martin Space Systems Company.)
- The design is to be done in AutoCAD, not in T-MOSS/In-ROADS computer software.
- Any earthwork within the Chatfield Reservoir property will require compliance with the Corps of Engineers' "Land Development Guidance at Corps Reservoir Projects" which requires that there be no impacts to the existing Chatfield Reservoir flood pool storage volume/elevations.
- The U.S. Fish and Wildlife Service has determined that the critical habitat for the Preble's Meadow Jumping Mouse is the South Platte River plus 459 feet outward on each side of the river.

Environmental services included in the Base Services include endangered species habitat review, wetland delineation, a Phase I Environmental Site Assessment update and other studies as necessary to write the Environmental Clearance Letter and to get CDOT's CAT EX environmental NEPA clearance. Air quality studies, wetland mitigation plans, habitat mitigation plans, and noise studies/mitigation plans are not included in the Base Services.

This project does not include any undergrounding of existing overhead utilities.

The Base Services does not include any reimbursable expenses. The reimbursable expenses estimated to be required to complete the tasks and deliverables listed in the Base Scope of Services are outlined in Additional Services Task 4.1.

The Base Services does not include any landscaping design.

**SUBCONSULTANT TEAM**

<b>Firm</b>	<b>Task(s)</b>	<b>Contact Person(s)</b>	<b>Phone</b>
<b>To be filled-in by Engineer</b>	Surveying , Right-of-Way Ownership, Right-of-Way Plans and Descriptions	<b>To be filled-in by Engineer</b>	<b>To be filled-in by Engineer</b>
<b>To be filled-in by Engineer</b>	Environmental	<b>To be filled-in by Engineer</b>	<b>To be filled-in by Engineer</b>
<b>To be filled-in by Engineer</b>	Geotechnical	<b>To be filled-in by Engineer</b>	<b>To be filled-in by Engineer</b>
<b>To be filled-in by Engineer</b>	Potholing	<b>To be filled-in by Engineer</b>	<b>To be filled-in by Engineer</b>
<b>To be filled-in by Engineer</b>	Structure Design	<b>To be filled-in by Engineer</b>	<b>To be filled-in by Engineer</b>

**DESIGN REFERENCE DOCUMENTS**

The following reference documents are to be used as a basis for design criteria, details and specifications for this project. Copies of the applicable County references will be obtained by the Engineer at the beginning of the data collection work for use in the design. **All sources shall be the current edition at the date of contract execution.**

Due to significant utility impacts and right-of-way constraints in the project area, it is likely that variances from some design criteria will be required. Such variances will need to be agreed upon by the County staff, CDOT and the Engineer during the design process.

1. South Wadsworth/Waterton Road Intersection – Feasibility Study, prepared by Jacobs Engineering, (September 23, 2010)
2. Jefferson County Construction Standards and Notes
3. Jefferson County Storm Drainage Design and Technical Criteria Manual
4. Jefferson County Roadway Design & Construction Manual
5. Department of the Army, Corps of Engineers, Land Development Guidance at Corps Reservoir Projects, (April 30, 2004)
6. U.S. Department of Interior, Fish and Wildlife Service, Revised Critical Habitat for the Preble’s Meadow Jumping Mouse in Colorado, 50 CFR Part 17

7. Colorado Department of Transportation, Design Guide
8. Colorado Department of Transportation, Right-of-Way Manual, Chapter 2, Plans and Descriptions Procedures and General Information
9. Colorado Department of Transportation, Standard Specifications for Road and Bridge Construction
10. Colorado Department of Transportation, Standard Plans
11. Colorado Department of Transportation, CADD Manual
12. American Association of State Highway and Transportation Officials, Roadside Design Guide
13. American Association of State Highway and Transportation Officials, A Policy on the Geometric Design of Highways and Streets.
14. Transportation Research Board, Highway Capacity Manual
15. Jefferson County Zoning Resolution  
(Section 15: Land Disturbance) (Section 48: F-P Flood Plain Overlay District)
16. Volume 3, Urban Drainage Criteria Manual for Best Management Practices (BMP's)
17. Manual on Uniform Traffic Control Devices
18. FEMA, Flood Insurance Rate Map, Jefferson County, Colorado (Unincorporated Areas)
19. FEMA, Flood Insurance Study for Jefferson County.

## **SCHEDULE**

The engineering design is scheduled to be completed in 2014, with right-of-way acquisitions being started by November, 2014 and being completed in time to begin construction in the spring of year 2015. A detailed design schedule for the project will be prepared by the Engineer, and updated upon given the Notice-to-Proceed.

## **SCOPE OF SERVICES**

Specifically, the Scope of Services shall consist of the following phases of work and enumerated work tasks:

### **TASK 1 - DATA COLLECTION**

#### **1.1 - Engineering Research:**

- Conduct a project Onsite Kick-off Meeting to walk the length of the project. The inspection will be attended by members of the Engineer's design team, County staff, and CDOT staff. Prepare minutes of this inspection meeting.
- Using digital photography, conduct a field inventory and generate a bound Photo Log of the existing roadways with labels describing what direction

- and subject, including the date of the photography.
- Develop the format for plan sheets to be reviewed by County staff.
- Update the Project Schedule.

## 1.2 - Design Surveys and Mapping: (To be filled-in by Engineer)

Design level aerial mapping was completed for the project during the Feasibility Study (one-foot contour intervals). Complete supplemental field surveys to obtain the detail required to design approach roadways, driveways and pavement widening.

- **Right-of-Entry** – Prepare right-of-entry request letters to the property owners immediately adjacent to the corridor that we require access from for the purpose of surveying. Letters will be prepared in typical CDOT format and mailed to the owners of each property. Should there be no response to the letter, attempt to contact the individual at the residence or business to request access to the property for the purpose of surveying.
- Establish horizontal and vertical control for the project based on the High-Accuracy Reference Network (HARN) and existing NGS benchmarks resulting in a 1983/1992 horizontal datum and a 1988 NAVD vertical datum.
- Establish vertical control including setting temporary and permanent benchmarks throughout the project, based on the project datum for the other Jefferson County arterial roadway projects.
- Prepare a Survey Control Diagram for the project showing existing monuments that were utilized and newly established monumentation. The Survey Control Diagram will be prepared in accordance with CDOT criteria. Control points established for this survey will be monumented with durable monuments for use during construction, and referenced on the Ownership Map.
- Provide a mounted, digital color aerial photograph at a scale of 1"=200' with labels for street names and other significant features.
- **Topographic Survey** – This scope anticipates utilizing the existing aerial topography and supplementing this data with additional field information. Cross sections will be obtained at approximate 50-foot intervals delineating elevations at each edge of pavement, centerline, edge of shoulder, centerline of borrow ditch and top of borrow ditch on each side of the roadway as applicable. Additional spot elevations will be attained on all driveway access points and all other tie-in points. This data will be merged with the existing aerial map.

- Include the existing visible features as follows:
  - Any existing private improvements that lie within the County's existing right-of-way.
  - Manhole and storm sewer inlet invert and rim elevations and sizes, inverts and direction of pipes in manhole. Note sizes of manholes. Determine pipe sizes and flow directions to the greatest extent possible from the surface. (For safety, surveying personnel will not be required to enter confined spaces such as manholes and vaults.) Utilities within the right-of-way will be marked in the field by a utility locating company. The marked utilities will subsequently be field surveyed and delineated on the design survey. All visible utility surface appurtenances will be field located and shown on the design survey. Invert elevations will be obtained from all accessible utilities (i.e. storm and sanitary sewers). It is anticipated that traffic control will be required to obtain utility information.
  - Culvert sizes, materials and invert elevations.
  - Irrigation ditches.
  - Signs, including sizes and types.
  - Earthen berms, including top and toe of slopes.
  - Edges of pavement, flowline, lip of curb pan, and roadway crown.
  - Curbs, gutters and sidewalks and survey topography at intersections, providing curb return elevations, radius returns, centerline profiles and signal equipment information (where applicable).
  - Surface utility evidence such as utility poles, junction boxes and any signs or markers indicating location of underground utilities on the project, not identified on the aerial mapping. For the protection of field personnel, provide traffic control for this task, as necessary.
- Use PICS and CDOT's TMOSS survey methodology, unless otherwise requested by the County.
- Survey geotechnical test hole locations and show them on the project plans.
- Review survey data and incorporate supplemental data into computer database.
- Merge the aerial and supplemental field survey into a single, coordinated base map for design use.

### **1.3 - Right-of-Way Research and Ownership Map: (To be filled-in by Engineer)**

- Establish the location of the South Wadsworth Boulevard (S.H. 121) and Waterton Road right-of-way from record information, so that the need for acquisition of property can be accurately determined. Use the field survey work previously completed.
- Prepare and submit an Ownership Map reflecting the right-of-way limits based on record information, without purchasing title commitments. Number ownerships alternately as they occur along the centerline from south to north or west to east, in the same direction as the stationing. Show current recorded names of owners, their addresses, and their Property Identification Number (PIN) per the County Assessor.
- Prepare Right-of-Way Information Binders on properties where additional right-of-way and/or permanent easements are anticipated to be required for the project. Information Binders will include:
  - Description of Parcel.
  - Title Commitment.
  - Easements within the Parcel.
  - Summary of Liens and Encumbrances.
  - Exceptions to the Title Commitment.

### **1.4 - Environmental Site Assessment: (To be filled-in by Engineer)**

- Conduct a Phase I Environmental Site Assessment (ESA) for the subject property. Include a visual inspection, interviews with the property owners, realtor/developer, key site manager, and occupants, if applicable, and a compilation of publicly available information from a variety of sources about past and current environmental conditions. Provide a written report, including a detailed presentation of findings.
- Conduct a visual site inspection of the subject property. The purpose of the inspection is to document recognized environmental conditions. Take photographs as appropriate. Lead-based paint samples may need to be taken. The following issues are specifically excluded from this ESA - asbestos-containing materials, radon, and lead in drinking water.
- Document the general site setting, such as current use(s) of the subject property and adjoining properties, and general hydrogeologic and topographic features. Provide a general description of structures and other improvements.

- Identify the following site conditions, if they are visually or physically observed, during the site inspection:
  - The quantity, type, and storage system for hazardous substances and petroleum products in connection with identified uses;
  - Tanks, containers, drums, barrels, and other systems used for storing hazardous substance and petroleum products not connected to identified uses;
  - Aboveground and underground storage tanks;
  - Pits, ponds, lagoons, and other features potentially used for storage and/or disposal of hazardous substances and petroleum product;
  - Odors, pools of liquids, stained soils and pavement, and stressed vegetation; and
  - Presence of electrical equipment potentially containing PCBs.
- Conduct interviews with the ESA user, property owner, site manager, and/or other persons with knowledge of the subject property.
- Conduct a search of records and files from a variety of sources and compile information pertaining to current and past environmental conditions. This search may include the following information:
  - Topographic, land use, and environmental resource maps
  - Aerial photographs
  - County and city records
  - State and federal databases
- Based on the information gathered during the above tasks, compile the information and findings in a written report that contains a detailed presentation of findings, including the site description, records review, site reconnaissance, and conclusions.

**1.5 - Wetland Delineation: (To be filled-in by Engineer)**

- Delineate wetlands and other waters of the U.S. subject to U.S. Army Corps of Engineers (Corps) jurisdiction under Section 404 of the Clean Water Act within the subject property.
- Conduct a field survey including completion of Routine Wetland Determination forms as specified in the 1987 Corps of Engineers Wetland Delineation Manual. Map the wetland boundaries for incorporation into project base mapping.
- Submit a wetland delineation report to the County and the Corps of

Engineers. Include a description of the wetlands and other waters of the U.S. on the project site, the methodology and rationale for determining their boundaries, and photographs of representative wetlands.

**1.6 - Habitat Review for Threatened and Endangered Species: (To be filled-in by Engineer)**

- Assess the project site for the presence of habitat that may support T&E species (specifically the Ute ladies'-tresses orchid and Preble's meadow jumping mouse).
- During the fieldwork, take note of any other potential environmental impacts or conflicts. Examples of other issues are disturbance of nesting raptors and/or songbirds (protected by the Migratory Bird Act) and the presence of prairie dog towns and/or burrowing owls.
- Submit a habitat assessment report to the County for review.

**1.7 - Environmental Clearance Letter: (To be filled-in by Engineer)**

- Prepare an "Environmental Clearance Letter" which outlines the results of the wetlands investigation, provides an opinion of the likelihood of the existence of rare or endangered species in the project area and provides the results and recommendations of the various federal and state agencies responsible for environmental regulation regarding current design requirements and any anticipated future requirements, as well as the environmental performance requirements during construction to avoid construction delays including any requirements from international treaties.

**1.8 - Geotechnical Design: (To be filled-in by Engineer)**

- Meet with the County in the field to review the geology of the project area with respect to geologic hazards, swelling soils, past roadway failures, and areas of high maintenance, and any areas of special subgrade treatments. Discuss any special geologic conditions that would impact the pavement design (dipping bedrock, presence of bentonite bedding, etc).
- Using available maps and utility location services, locate utilities prior to drilling test holes. Engineer and Geotechnical Engineer will lay out proposed locations for test holes.
- Conduct a pavement distress survey to identify existing pavement condition and long-term performance pavement performance characteristics. Use a Falling Weight Deflectometer testing machine to determine the strength of the

existing pavement sections.

- Drill test holes to a depth of 5 to 10 feet or more, depending on final grades. Test holes will be drilled on approximately 500-foot centers to obtain a soil profile for pavement design and excavation conditions. Drill at least 5 test holes in the existing pavement along the corridor to determine pavement thickness. Drill primarily in areas where it is anticipated that existing pavement may be salvaged. At each of these test holes:
  - Measure groundwater depths.
  - Collect representative soil samples.
- Perform laboratory tests on representative samples:
  - Maximum Density at optimum moisture content
  - R-Value
  - Natural Density and Moisture Content
  - Atterberg Limits
  - Gradation Analysis
  - Swell/Consolidation Tests (expansive properties of soils)
  - Water soluble sulfates
  - Unconfined Compressive Strength
- Review test results and make recommendations for the pavement thickness required for flexible pavements and special subgrade treatments, if required.
- Prepare a Geology Map of the project limits to illustrate the changes in geology and soil types on the project.
- Prepare soil log sheets to illustrate the changes in geology and soil types in the project corridor.
- Conduct an economic analysis of various asphalt pavement sections to determine the best design. Concrete pavement design alternatives are not to be included in the analysis.
- Prepare and submit the bound Draft Geotechnical Report to the County for review.
- Meet with the County after the completion of the draft report to develop a consensus on pavement types, sections, and subgrade treatment alternatives to be used for the project.
- Make revisions and submit final report to County upon concurrence of the findings of the draft report.

END OF TASK 1 – DATA COLLECTION

## **TASK 2 - PRELIMINARY DESIGN**

### **2.1 - Preliminary Roadway Plans – Field Inspection Review (F.I.R. Plans):**

- Prepare a “Memorandum of Design – Roadway” outlining the roadway design criteria recommended by the Engineer for the project.
- Prepare preliminary plans to include the following items:
  - Title Sheet
  - Standard Plans List
  - Typical Sections
  - General Notes
  - Survey Control Diagram and Notes
  - Ownership Tabulation Sheet
  - Ownership Map
  - Plan sheets 1"=20' Horizontal (full-size scale), including line drawing of existing topography (man-made features only), survey alignment, proposed alignments, profile grades, existing ground lines, existing right-of-way, drainage structure notes, top and toe of slopes, proposed right-of-way, proposed easements, location of soil borings, existing bus stop locations, proposed bus stop benches for attached and detached sidewalks, and existing property owners' names and addresses, Assessor Property Identification Numbers (PIN) numbers, and project parcel numbers.
  - Profile sheets 1"=10' Vertical (full-size scale), are to be on separate sheets from the plan sheets and are to be grouped together following the plan sheets, are to include soil boring profiles and underground utilities
  - Side street profiles
  - Preliminary driveway profiles
  - Cross-sections of the existing ground and proposed roadway template (at 100-foot intervals).
  - Storm sewer plans and any special drainage plan sheets
  - Irrigation ditch relocation plans
  - Construction phasing typical sections and plans (schematic)
- Preliminary striping will be shown on the preliminary roadway plan sheets. Signing plans will not be developed until final design.
- Design all proposed raised medians with catch curb and gutter [e.g. Type 2 – Section I-B (catch)].
- Consult with the County on the appropriate length of deceleration/storage/taper lengths for right-turn lanes.

- Prepare an F.I.R.-level Opinion of Probable Construction Cost. If intergovernmental agreements (IGA's) or utility agreements cost sharing is anticipated for various project elements, pay items and costs for these items will be broken out in the project opinion of probable construction cost.
- Show limits of driveway reconstruction to adjacent properties on roadway plans.
- Design vertical profiles for each driveway.

## **2.2 - Preliminary Utility Coordination:**

- Send copies of preliminary plans to utility companies to request verification of existing and proposed utility locations shown on the plans.
- Identify utility conflicts and potential relocations. Determine locations where utility potholes should be dug to confirm whether conflicts exist or not. Prepare additional services request for utility potholing services once the required number and locations of potholes are known. Utility potholing is not included in the Base Scope of Services. The goal shall be to perform the additional services for utility potholing very soon after the F.I.R. meeting.
- Before the F.I.R. meeting, meet with the affected utility companies (including Lockheed Martin regarding their fiber optic lines) that will be significantly impacted by the project.
- At the start of the F.I.R. meeting, a utility coordination session will be held with utility company representatives to review conflicts, determine how the conflicts should be resolved, and determine who is financially responsible for work required to resolve the conflict.
- A "Memorandum of Design – Utilities" will be prepared to include a list of locations where conflicts exist between utilities and proposed roadway construction and where utility facilities will need to be relocated.

## **2.3 - Preliminary Construction Phasing Plans:**

- Review design plans to determine a logical approach for staged construction.
- Prepare a schematic construction phasing plan to illustrate possible construction phasing for the contractor. The plan will include an outline of salient construction tasks to be completed in each phase.
- Prepare typical section (schematic) showing detours and work areas within the

project right-of-way for various construction phases.

- Prepare preliminary construction cost estimate for construction traffic control items for inclusion in the F.I.R.-level construction cost estimate for the project.

## **2.4 - Preliminary Drainage Plans:**

- Review past drainage reports and other available drainage-related information (Master Plans, Flood Plain Studies, etc.).
- Establish drainage basin boundaries and characteristics for minor cross drainages.
- Conduct field reconnaissance to verify drainage basin boundaries for cross drainage and storm sewer design.
- Establish drainage basin boundaries and characteristics for minor cross drainages.
- Determine design discharges in minor cross drainages according to the Jefferson County Storm Drainage Design and Technical Criteria Manual and the CDOT Design Guide.
- Establish locations of required drainage structures. Check capacity of existing drainage structures. Identify drainage structures to be replaced for capacity or condition issues especially the existing triple 60-inch CMP under Waterton Road.
- Establish a plan for meeting Jefferson County's MS-4 requirements for permanent water quality with regard to the proposed roadway improvements.
- Using the Jefferson County Storm Drainage Design and Technical Criteria Manual and the CDOT Design Guide, analyze flows on pavements and determine storm sewer and inlet requirements along the project.
- Using the Jefferson County Storm Drainage Design and Technical Criteria Manual and the CDOT Design Guide, analyze each cross culvert structure and determine opening sizes to accommodate design discharges.
- Prepare a Phase II Drainage report in accordance with the requirements of the Jefferson County Storm Drainage Design and Technical Criteria Manual.
- Include drainage items in the preliminary construction cost estimate.

## **2.5 - Signing and Striping Plans:**

- Show preliminary striping on the preliminary roadway plan sheets.
- Include signing and striping items in the preliminary construction cost estimate.

## **2.6 - Ownership Map:**

- Show the approximate limits of the proposed right-of-way and easements on the preliminary plan sheets, and the Ownership Map.
- Prepare an exhibit for the public open house meeting that shows the existing property lines, the proposed right-of-way limits, existing topographic features, and proposed curb, gutter and sidewalks.
- Prepare the final legal descriptions and exhibits (permanent and temporary construction easements) per the requirements in Task 3.6 (Ownership Map, Legal Descriptions and Exhibits), so that the acquisition process can begin in a timely manner.

## **2.7 - Project Coordination:**

- Attend regular progress meetings as appropriate. Three (3) meetings with up to three (3) Engineer staff members are included in the scope of work during the preliminary design phase.
- Prepare and distribute written minutes of meetings required for the project, including any meetings held with the County, utility companies, and jurisdictional entities.
- Document time delays, scope of work variations, changes in input from entities and coordinate said documentation.
- Arrange and attend a Field Inspection Review (F.I.R.) meeting with County Staff and other affected parties, as required by the County.
- Prepare and distribute minutes of the F.I.R. meeting.
- Make minor revisions to plans as agreed to by the Engineer and County. In general, F.I.R. comments will be incorporated into the plans during final design. There will not be a post-FIR plan submittal as a part of this Scope of Services.
- Prepare a list of design recommendations to be incorporated into the final plans, and submit as an Appendix to the "Memorandum of Design – Roadway".

- Prepare monthly reports to the County outlining work completed to date, value added services, actual completion vs. budget completion vs. scheduled completion and potential additional services requests on the horizon.

## **2.8 - Public Coordination:**

- Update computerized mailing list to include names and addresses provided by participants in the last public meeting who were not on the mailing list previously.
- Arrange for a location for the public open house. Any fees for meeting facilities will be paid directly by the Engineer, as an Additional Service under Task 4.1.
- Prepare a meeting announcement for the public open house and submit an original copy of the announcement to the County. Reproduce and mail public open house announcements to those on the computer mailing database.
- Prepare a newspaper advertisement for the public open house. Submit the advertisement to the County for review. Upon approval of the advertisement content by the County, submit the advertisement to a local weekly newspaper for publishing in up to two (2) editions of that paper. Fees for publishing the advertisement will be paid directly by the Engineer, as an Additional Service.
- Prepare the text for a Variable Message Sign (VMS) message announcing the public meeting. Engineer will provide this text to County Staff, who will post the message on County-owned signs and place the signs along the Quincy corridor.
- Prepare exhibits for the public open house. Exhibits will be word boards (data and/or questions), aerial photographs (with and without the proposed roadway superimposed), and other relevant drawings developed during preliminary design.
- Prepare a CD containing .PDF files of all the public meeting exhibits. PDF files shall be prepared at a size suitable for posting on the internet. Submit the CD to Jefferson County for posting on the County's website. A .PDF index page may be necessary to maintain file sizes that are workable for the public. Each PDF file must not exceed 1 MB so that the public can easily open the files.
- Attend one (1) public open house meeting. Three members of the Engineer's staff, plus a greeter, will attend the meeting.
- After the public meeting, prepare a report summarizing the notification process, attendance, intent of the meeting, exhibits / handouts, and public comments.

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- Preliminary Design Public Coordination includes up to two (2) meetings with individual property owners, homeowner's associations, or other interested citizens in addition to the referenced public meeting.

**END OF TASK 2 - PRELIMINARY DESIGN**

### **TASK 3 - FINAL DESIGN**

Following the County review of the preliminary plans and, at the direction of the County, the following final design work tasks will be completed:

#### **3.1 - Final Roadway Plans - Final Office Review (F.O.R. Plans):**

- Revise preliminary roadway plans based on F.I.R. comments.
- Prepare Summary of Approximate Quantities.
- Prepare quantity tabulations for individual items. Anticipated tabulations include construction surveying, removals/resets/adjust items, earthwork, guardrail, concrete items, surfacing, fencing, storm sewers and others listed in subsequent sections of the Scope.
- Prepare detail sheets for various miscellaneous project components.
- Prepare Project Special Provisions and Standard Special Provisions (e.g. technical specifications) to augment the Colorado Department of Transportation's Standard Specifications for Road and Bridge Construction.
- Provide to Jefferson County's Transportation & Engineering Division, Compact disk(s) (CD(s)) with project drawings in AutoCAD (the latest version, but not earlier than 2012 later format). The CD(s) will be compatible with Windows 2000 and Windows NT. A hard copy of the itemized list of contents on the CD(s) will be provided with them. The list will be a table indicating plan sheet number, plan sheet description, and the AutoCAD file name for each sheet.
- Prepare F.O.R.-level Opinion of Probable Construction Cost based on the Summary of Approximate Quantities. If intergovernmental agreements (IGA's) or utility agreements cost sharing is anticipated for various project elements, pay items and costs for these items will be included in the F.O.R. construction cost estimate and broken out in separate cost estimates.

#### **3.2 - Final Utility Coordination:**

- Once the additional services for utility potholing are performed (soon after the F.I.R.) and the conflict locations are verified, conduct a Utility Coordination Meeting. All affected utility companies shall be invited to the meeting. The purposes of the meeting will be to:
  - Review conflicts
  - Confirm how the conflicts should be resolved

- Confirm who is financially responsible for work required to resolve the conflict
  - Confirm which portions of the work will be performed by Utility Company versus County Contractor forces
  - Confirm the duration or expected completion date of the utility work and the advance notification time requirements.
- Conduct field reviews with utility owners as required.
  - Revise plans to reflect input from utility owners at the Utility Coordination Meeting and field reviews.
  - Prepare Utility Clearance Letters listing specific utility work elements that the contractor shall perform, specific utility work elements that the utility owner shall perform, the duration or expected completion date of the utility work, and advance notification time requirements.
  - Submit the letters to the utility companies requesting their signature and return of the letters.
  - Prepare a utility specification listing all utility owners adjacent to the project and the provisions of the "Utility Clearance Letters".

### **3.3 - Construction Traffic Control Plans and Quantities:**

- Prepare detailed "suggested" construction traffic control plans showing suggested construction phasing, work zone locations, temporary striping, construction signing and other construction traffic control devices.
- Prepare "suggested" traffic control and phasing notes sheet. Include an outline of salient construction tasks to be completed in each phase.
- Prepare Tabulation of Suggested Traffic Control Devices, and Tabulation of Contractor Traffic Control Pay Items

### **3.4 - Final Drainage Plans:**

- Revise grading details, and other drainage details based on F.I.R. comments.
- Prepare storm sewer profiles.
- Design permanent BMP's to meet Jefferson County's MS-4 requirements for water quality for the proposed roadway improvements.

- Prepare Erosion Control Plans for construction of the project. The plans will depict schematically the measures to be used to minimize erosion and sedimentation during construction. The plans will be at a scale of 1"=100'. The Erosion Control Plans shall accommodate and address the differing requirements for each proposed phase of construction.
- Prepare a Phase III Drainage report in accordance with the requirements of the Jefferson County Storm Drainage Design and Technical Criteria Manual.

### **3.5 - Final Signing and Striping Plans:**

- Prepare signing and striping plans for the project at 1"=50' scale (1"=100' on 11" x 17" sheets). Plans will show striping layout for permanent roadway striping, existing and proposed sign locations, and proposed sign sizes and codes.
- Prepare tabulation of signs.
- Prepare tabulation of pavement markings.

### **3.6 - Right-of-Way Plans, Legal Descriptions and Exhibits (To be filled-in by Engineer):**

The right-of-way descriptions and exhibits prepared under this section will be final documents to be used by the County to acquire the right-of-way and easements necessary to complete the construction of the project. They will be based on the F.I.R. plans, as modified with comments made at the meeting and will be prepared in compliance with the applicable requirements.

- Calculate areas of parcels and easements to be acquired, and the area of prescriptive right-of-way to be deducted from the acquisition transaction.
- Write legal descriptions and prepare exhibit maps of parcels that are to be acquired. The areas described and exhibited will include the combination of the new right-of-way take, and any existing prescriptive right-of-way. Separate legal descriptions need to be made for any existing prescriptive right-of-way and used in quit claim deeds. The existing prescriptive right-of-way will be highlighted on the exhibit and its area will be listed so the County can deduct this area when negotiating the purchase price. Descriptions will be prepared from record information, as provided in the title commitments. A record copy of the descriptions shall include date, seal, signature, name and number of the Professional Land Surveyor responsible for their preparation.
- Review ROW descriptions and exhibits.

- Prepare a right-of-way Tabulation of Properties (11"x17") detailing parcel number, owner's name, address & phone number, location, area of parcel, date of most recent legal description, and purpose of acquisition (ROW, or type of easement). Submit this tabulation to the County in both paper and electronic (MS-Excel) format. This tabulation will be used by the County to insure that the most current legal description is being used, and it will define what parcels need to be acquired to accommodate the construction. **(To be filled-in by Engineer)**
- Update the previously prepared Ownership Map with the following information superimposed: existing right-of-way, prescriptive right-of-way, proposed right-of-way, permanent/slope easements, construction easements, and drainage easements (if any). Typical right-of-way dimensions will be provided if/where right-of-way is a constant width. Parcel numbers will be assigned and a legend will be provided correlating the parcel number to the landowner's name, address, and Assessor Property Identification Numbers (PIN) numbers.
- Prepare a right-of-way "Clearance Letter" that summarizes the acquisitions and easements information determined by the Engineer to be necessary to construct the project. **(To be filled-in by Engineer)**

### **3.7 - Final Design Coordination:**

- Attend regular progress meetings as appropriate. Three (3) meetings with up to three (3) Engineer staff members are included in the scope of work during the final design phase.
- Prepare and distribute written minutes of meetings required for the project, including any meetings held with the County, utility companies, and jurisdictional entities.
- Document time delays, Scope of Services variations, changes in input from entities and coordinate said documentation.
- Arrange and attend Final Office Review (F.O.R.) meeting with County Staff and other affected parties, as required by the County.
- Prepare monthly reports to the County outlining work completed to date, value added services, actual completion vs. budget completion vs. scheduled completion and potential additional services requests on the horizon.
- Prepare and distribute minutes of the F.O.R. meeting.
- Make minor plan revisions after the F.O.R. as requested by County. Submit

one set of plans (11" x 17") and technical specifications (8.5" x 11") with F.O.R. comments incorporated ("Post-FOR Plans and Specs") to County for approval. Revisions to plans will be made for a period of 4 weeks after the Final Office Review Meeting based on Jefferson County Staff input and minor modifications required due to right-of-way negotiations.

- Submit one Record Set of Approved Post-F.O.R. Plans (8-1/2" x 14") and Specifications with a P.E. Seal to Jefferson County and CDOT.

### **3.8- Construction Stormwater Discharge and Dewatering Permits:**

- Prior to the development of any Erosion Control Plans, the Engineer will meet with the Jefferson County Highways and Transportation Division construction staff to outline the approach to developing the plans. The Engineer will develop the Erosion Control plans based on direction received at the meeting.
- Jefferson County staff will complete the application form for the Stormwater Discharge Permit for Construction as required by the Colorado Department of Health and Environment (CDPHE) General Permit Application, Stormwater Discharges Associated With: Construction Activity. The "Local Contact" listed on the application will be Dixie Shear.
  - Jefferson County staff will prepare a Stormwater Management Plan (SWMP) (i.e. "The SWMP Notebook") to accompany the CDPHE Stormwater Discharge Permit application. The County prepared SWMP will identify temporary sediment and erosion controls that are to be used during construction for different contaminants. In preparing the SWMP, Jefferson County will review the Construction Phasing Plans which are prepared by the Engineer and the Traffic Control Plans which are also prepared by the Engineer.
  - The Engineer will provide Jefferson County with "Area of Disturbance" calculations in acres for: **1.)** Total Area of Construction; **2.)** Total Area of Disturbance; and **3.)** Area of Native Grass Seeding. This information will be used by Jefferson County to complete the SWMP (i.e. "The SWMP Notebook").
  - The Engineer will not prepare any "Stormwater Management Plan Notes" sheets (i.e. 2 sheets), as said notes will be more thoroughly included in the County prepared SWMP (i.e. "The SWMP Notebook").
  - The Engineer is to include CDOT's latest Standard Special Provision regarding "Water Quality Control" (i.e. Revision of Sections 101, 107, and 208) in the specifications. The Project Special Provisions prepared by the

Engineer will include a requirement that the Contractor transfer the Stormwater Discharge Permit to his company before construction begins, and that he amend the Permit during construction if the Contractor's operations are inconsistent with these statements or any other portion of the Permit.

- The County will submit the application, pay the required fees, and obtain the Permit. Once the Permit is obtained, the County will provide a copy to the Engineer for inclusion in the Bid Package.
- Prepare a Tabulation of "Temporary Erosion & Sediment Controls) (i.e. temporary BMP's) based on the final "Erosion & Sediment Control Plan" sheets and include the quantities in the Bid Schedule.
- Include the County prepared SWMP, and the final "Erosion & Sediment Control Plan" sheets in the "For Bid" set of plans.
- **If it is determined that a Dewatering Permit is needed for this project,** Jefferson County staff, or the Contractor, will complete the application form and prepare the supporting documentation for a Dewatering Permit as required by the Colorado Department of Health Construction Dewatering – Industrial Wastewater Discharge Application. Jefferson County will pay for the filing fee for this permit, if it is determined that it is needed before construction begins. The "Local Contact" listed on the application will be Dixie Shear if Jefferson County is the applicant. The Contractor will pay the fee permit if the Contractor determines that it is needed during construction, and Jefferson County has not already obtained the Dewatering Permit.
- The Project Special Provisions prepared by the Engineer will include a requirement that the Contractor transfer the Dewatering Permit to his company before construction begins, and that he amend the permit during construction if the Contractor's operations are inconsistent with these statements or any other portion of the permit.
- If the County obtains the Dewatering Permit before construction begins, the County will provide a copy to the Engineer for inclusion in the Bid Package.

END OF TASK 3 - FINAL DESIGN

### **PROJECT DELIVERABLES (TASKS 1-3)**

The Engineer shall deliver to the County the designated number of copies of the following documents at appropriate times during the project, as outlined in this Scope of Services. The Engineer shall provide electronic versions of all deliverables upon request.

#### **TASK 1 - DATA COLLECTION:**

- Six (6) copies each:
  - Draft and Final Geotechnical Reports (Task 1.8)
  
- Four (4) copies each:
  - Environmental Site Assessment Report (1.4)
  - Wetland Delineation (Task 1.5)
  - Habitat Assessment Report (Task 1.6)
  - "Environmental Clearance Letter" (Task 1.7)
  
- Two (2) copies of each:
  - Minutes of Onsite Kick-off Meeting (Task 1.1)
  - Project Schedule (Task 1.1)
  - Ownership Map (Task 1.3)
  - Geology Map (Task 1.8)
  
- One (1) copy of each:
  - Bound Photo Log of existing roadways (Task 1.1)
  - Survey Notes for HARN Network Coordinate Tie Loop (Task 1.2)
  - Field Survey Notes (Task 1.2)
  - Mounted digital color aerial photograph of project (Task 1.2)
  - Right-of-Way Information Binders (Task 1.3)
  - Title Commitments (Task 1.3)

#### **TASK 2 - PRELIMINARY DESIGN:**

- Twenty-five (25) copies each:
  - F.I.R. Preliminary Roadway Plans (11"x17") (Task 2.1)
  
- Three (3) copies each:
  - Phase II Drainage Report (Task 2.4)
  
- Two (2) copies each:
  - "Memorandum of Design – Roadway" (including design criteria) (Task 2.1)
  - F.I.R.-level Opinion of Probable Construction Cost (Task 2.1)
  - "Memorandum of Design – Utilities" (Task 2.2)
  - Appendix to "Memorandum of Design – Roadway" (Task 2.7)

- One (1) copy of each:
  - F.I.R. Preliminary Roadway Plans (8.5"x14") (Task 2.1)
  - Minutes of Meetings and Phone Conversations (Task 2.7)
  - Public Meeting Announcement (Task 2.8)
  - Newspaper Announcement for Public Meeting (Task 2.8)
  - Compact disk containing .PDF files of Public Meeting Exhibits (Task 2.8)
  - Public Meeting Report (Task 2.8)

**TASK 3 - FINAL DESIGN:**

- Twenty-five (25) copies each:
  - F.O.R. Roadway Plans (11"x17" plans) and Technical Specifications (Task 3.1)
- Three (3) copies each:
  - Phase III Drainage report (Task 3.4)
  - Right-of-Way Descriptions and Exhibits (Task 3.6)
  - Right-of-Way Tabulation of Properties (Task 3.6)
  - Right-of-Way "Clearance Letter" (Task 3.6)
- Two (2) copies each:
  - F.O.R.-level Opinion of Probable Construction Cost (Task 3.1)
- One (1) copy each:
  - F.O.R. Plans (8.5"x14" plans) and Technical Specifications (Task 3.1)
  - Compact Disk with AutoCAD files of project drawings, and itemized list of the contents of the CD (Task 3.1)
  - Utility Clearance Letters (Task 3.2)
  - Electronic version (MS-Excel) of Right-of-Way Tabulation of Properties (Task 3.6)
  - Minutes of Meetings and Phone Conversations (Task 3.7)
  - Original 11" X 17" Final Plans and Technical Specifications (with Post-FOR revisions) (Task 3.7)
  - Plans (8-1/2" x 14") and Technical Specifications with P.E. Stamp (Record Set) (Task 3.7)

END OF DELIVERABLES LIST

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**INFORMATION TO BE FURNISHED BY JEFFERSON COUNTY**

The County will furnish the following items at no charge to the Engineer:

- Mailing list of citizens to receive public meeting notices.
- Available accident data.
- Aerial mapping from Wadsworth/Waterton Feasibility Study (1-foot contours).
- "South Wadsworth Boulevard/Waterton Road Intersection Feasibility Study" by Jacobs Engineering (9/23/10)
- PMJM Revised Critical Habitat Mapping by U.S. Fish & Wildlife Service
- Biological Assessment (October-2011)
- Noise Technical Memo (7/19/10)
- Air Quality Analysis Technical Memo (7/19/10)
- Paleontological Assessment Report (revised March, 2011)
- Phase I Environmental Site Assessment Report (July-2010)
- Wetland Finding Report (October-2010)

#### **TASK 4 - ADDITIONAL SERVICES**

Additional Services are tasks that may be required to be completed as a part of the design work, or during construction, but the need and extent of the additional work is unknown at the time the Scope of Services is being prepared (prior to initiating the work). The following Scope of Services are "best estimates" or are "in anticipation" of the work that may be required.

None of the Additional Services work tasks will be completed without the written authorization of the County's Authorized Representative. At the time the need for the Additional Service is determined, the anticipated Scope of Services written herein will be reviewed for appropriateness. At that time, the Engineer will advise the County of the adequacy of the anticipated Scope of Services and whether more or less effort is needed. The adequacy of the established budget will also be reviewed. Every effort will be made to complete authorized Additional Services, including revised work scopes, within the established budgets. Should additional work to that is not anticipated herein be requested or determined necessary, the County may authorize additional budget amounts. Should the County choose not to authorize the additional work and budget amounts, the Engineer is not obligated to complete additional work beyond the amount previously authorized and approved. All Additional Services work will be performed on a time and expense basis with costs not to exceed the budget amounts authorized by the County. Hourly billing rates current for the period when the work is performed will be the basis for establishing Engineer's cost.

#### **4.1- Reimbursable Expenses:**

The budget amount established for reimbursable expenses was estimated based on the tasks and deliverables listed in the Base Contract Scope of Services. It includes reasonable allocations for the following reimbursable expenses expected on the project.

- Mileage
- Postage
- Messenger Services
- Reproduction/Reprographics
- Rent for Public Meeting Rooms
- Newspaper Advertising Cost
- Other miscellaneous expenses (public meeting graphic supplies, photo processing, etc.)

Reimbursable expenses for each Additional Services task that becomes necessary will be included in the fee estimate for that task.

#### **4.2 - Additional Right-Of-Way Services:**

- Prepare additional title commitments and update ownership map as outlined in Task 3.6 of this Scope of Services. (Estimate includes an additional 4 parcels).
- Prepare additional descriptions and exhibits or revise descriptions and exhibits per landowner input, as outlined in Task 3.6 of this Scope of Services. (Estimate includes 12 legal descriptions total.) Update right-of-way Tabulation of Properties and right-of-way / easement plan sheets to include these additional descriptions and exhibits.

#### **4.3 - Utility Potholing:**

Upon mutual agreement between the Engineer and the County that location of underground utilities is necessary to determine or resolve conflicts; the Engineer shall perform the following services upon written notice from the County:

- Using non-destructive techniques, locate underground utilities on the project site.
- Survey the pothole locations.
- Document the field locations and include the information in an updated Memorandum of Design - Utilities.
- Modify design plans where field locations show discrepancies with the utility key maps. Detail on the plans the horizontal and vertical location of each utility potholed.
- The number of potholes excavated will be dependent on locations, timing and budget amount.

#### **4.4 - Property Owner / Citizen Coordination:**

- From right-of-way research, determine names and addresses of additional ownerships that will be impacted by the project construction. Contact the property owners and arrange meetings with them individually to discuss right-of-way and/or access impacts to their property. Document property owner meetings. At the request of County Staff, develop written responses to letters or other specific comments received from citizens. Send written responses to County Staff for review and forwarding to citizens. The budget estimated for this task assumes the Engineer will be asked to respond to 10 such letters/comments, at an average of 8 hours per letter.

#### **4.5- Plan Changes After Final Office Review (F.O.R.) Comments:**

- After a period of eight weeks past the date of the Final Office Review (F.O.R.) meeting, make changes to the plans bases on comments from Jefferson County or CDOT staff or due to right-of-way negotiations. The amount budgeted for this activity is not based on any specific changes and will be negotiated at the time the work is required. The amount in the estimate is a 'place holder' to set aside a budget for this activity should the need arise.

#### **4.6- Plan Reproduction Services:**

- After completion of the final project roadway construction plans reproduce plans in the following quantities for the County to distribute to bidders:
  - One (1) set of plans, 11"x17".
  - Five (5) sets of plans, full-size blue lines.
  - Five (5) sets of roadway cross sections, full-size blue lines.
  - Fifty (50) sets of plans, 11" x 17" photocopies.
  - Fifty (50) sets of roadway cross sections, 11" x 17" photocopies.
  - Fifty (50) sets of Bid Documents and Technical Specifications.

#### **4.7- Water Line Relocations: (To be filled-in by Engineer)**

If, during the course of the design work, it is determined that water lines must be relocated to accommodate the roadway improvements, water system relocation plans will be developed by the Engineer upon written authorization from the County. The length of water line relocation is not anticipated to exceed 1,000 feet. The work items to be completed for design of relocated water lines are as follows:

- Prepare a set of plans for review by the local water utility, (if applicable), and the Denver Water Department including the following sheets:
  - Title sheet separate from the roadway plans.
  - Water system details and notes.
  - Waterline plan and profile sheets.
  - Sequencing of waterline relocation construction.
- Prepare project special provisions for the waterline relocations and include the standard specifications of the appropriate waterline utility jurisdiction.
- Prepare construction cost estimates for the preliminary and final design tasks of the waterline design.
- All permit and plan review fees will be paid directly by the County and are not included in the Scope of Services.

#### **4.8- Retaining Wall Design: (To be filled-in by Engineer)**

Upon determination that a retaining wall is required to minimize right-of-way acquisition and accommodate the project grades, the Engineer will provide the following services upon written notice from the County:

- Conduct a geotechnical investigation to determine the soil characteristics in the retaining wall location.
  - Drill additional exploratory test holes at the location where the retaining wall is to be located and obtain appropriate soil samples.
  - Conduct soils testing on the soil samples to determine the active and passive earth pressures and bearing capacity of the soils in the retaining wall areas.
- Prepare preliminary and final design plans for retaining walls, should it be determined that a retaining wall is required to avoid excessive right-of-way acquisition. It is assumed that the walls will not exceed 6 feet in height or 1,000 feet in total length.
  - Prepare a plan, profile and structural details of the retaining wall.
- Prepare project special provisions for the retaining wall elements.

#### **4.9 - Wetland Mitigation Plans and 404 Permit: (To be filled-in by Engineer)**

Based on a preliminary field assessment of the corridor, the roadway design may impact some jurisdictional wetland areas, but if this assumption is correct a 404 Permit will need to be applied for:

- Upon final completion and incorporation of the wetland delineation survey into the site plans, refine and document proposed impacts (both temporary and permanent), then assess and determine Clean Water Act, Section 404 permit and mitigation requirements.

Thereafter, perform the following tasks:

- Prepare wetland mitigation concepts to discuss with Jefferson County and then with the Army Corps of Engineers.

Conduct a pre-application meeting with Army Corps of Engineers to (1) review the project, (2) gain some initial consensus that the proposed plan for mitigation is supportable, and (3) confirm the wetlands delineation.

- Prepare the application for an Individual or Nationwide 404 Permit and associated attachments/drawings. The Engineer will provide preliminary grading plan drawings and descriptions of the project need and alternatives evaluation for use in the permit application.
- Complete wetland mitigation plans. Wetland scientists will work to develop one consolidated wetland mitigation plan for stream and wetland impacts. The mitigation plan will satisfy the requirements of the 404 Permit application process and construction bid process. The Engineer will be responsible for developing the grading plans for the wetland mitigation.
- A wetland scientist will follow-up with the Corps to expedite the review and approval of the 404 Permit and Mitigation Plan.
- Construction services and annual wetland mitigation monitoring reports after construction are not included in this Scope of Services. If such services are required, they will be performed as Additional Services.

#### **Assumptions**

- All wetlands and waters impacts can be restored and/or mitigated on-site and in-place. Wetland disturbance is anticipated to be no more than 0.3 acre.
- An environmental representative will attend 3 wetland design/permit meetings at the Jefferson County offices.
- The fee quoted assumes one round of limited responses to regulatory and public comments during the 404 permit process.

#### **4.10 – Preble’s Meadow Jumping Mouse Mitigation Plan (To be filled-in by Engineer)**

Based on a preliminary field assessment of the corridor, it may be necessary to perform a presence/absence survey for the Preble’s Jumping Mouse (PMJM) and/or develop a Mitigation Plan for minimizing any impacts to the PMJM during construction of the project.

#### **4.11 - Miscellaneous Additional Surveys: (To be filled-in by Engineer)**

- Perform additional design surveys in areas that may require further definition after preliminary design is completed. The surveys should include any existing manmade improvements and landscaping (e.g. fences, trees and shrubs) that lie within any proposed additional right-of-way and easement parcels so that the appraiser can ascertain what the impacts are to the affected properties.

These surveys might also include additional information for driveway relocations, approach relocations or drainage information required for final design.

- This scope allocates 40 hours of 1 man crew time, 36 hours of project surveyor's time and four hours of survey manager's time for the additional surveys.

#### **4.12 - Additional Project and Public Coordination:**

- Attend additional project progress meetings as requested by Jefferson County. Prepare meeting minutes for additional progress meetings.
- Update computerized mailing list to include names and addresses provided by participants in the last public meeting who were not on the mailing list previously.
- Arrange for a location for the public open house. Any fees for meeting facilities will be paid directly by the Engineer, as an Additional Service.
- Prepare a meeting announcement for the public open house and submit an original copy of the announcement to the County. Reproduce and mail public open house announcements to those on the computer mailing database.
- Prepare a newspaper advertisement for the public open house. Submit the advertisement to the County for review. Upon approval of the advertisement content by the County, submit the advertisement to the Columbine Courier for publishing in up to two (2) editions of that paper. Fees for publishing the advertisement will be paid directly by the Engineer, as an Additional Service.
- Prepare the text for a Variable Message Sign (VMS) message announcing the public meeting. Engineer will provide this text to County Staff, who will post the message on County-owned signs and place the signs along the Quincy Corridor. No fixed-message signs announcing the public open house will be prepared or posted for this project.
- Prepare exhibits for the public open house. Exhibits will be word boards (data and/or questions), aerial photographs (with and without proposed roadway superimposed), and other relevant drawings developed during design. Landscape plans will be included.
- Prepare a CD containing .PDF files of all the public meeting exhibits. .PDF files shall be prepared at a size suitable for posting on the internet. Submit the CD to Jefferson County for posting on the County's website.

- Attend one (1) public open house meeting. Three members of the Engineer's staff plus a greeter will attend the meeting.
- After the public meeting, prepare a report summarizing the notification process, attendance, intent of the meeting, exhibits / handouts, and public comments.
- Final Design Public Coordination includes up to two (2) meetings with individual property owners, homeowner's associations, or other interested citizens in addition to the referenced public meeting. (It is assumed that all property owners or their representatives can be met with in the Denver Metropolitan Area. No travel outside Denver Metropolitan Area is included in this scope.) (Or, if the County prefers, the Engineer will respond on behalf of the County to up to two (2) letters from such entities in lieu of the meetings.) If more such meetings or responses become necessary, they will be performed as Additional Services.
- Provide the following deliverables (1 copy of each):
  - Public Meeting Announcement
  - Newspaper Announcement for Public Meeting
  - Compact disk containing .PDF files of Public Meeting Exhibits
  - Public Meeting Report

#### **4.13 - Bid Services:**

The bidding services are for roadway package to be advertised in 2016.

- Prepare the Bid Package, including bid forms, Project Special Provisions, Standard Special Provisions, which will be comprised of the Contract Documents. Standard County and CDOT forms and formats will be used for the Contract Documents.
- Attend the Pre-Bid meeting and prepare the meeting minutes.
- Prepare addenda to the bid plans and specifications during the advertisement period, as requested by the County.
- Attend the Bid Opening and prepare bid tabulation for the project.
- Reproduction of plans for distribution to prospective bidders is not included in the Base Scope of Services, but is included in Additional Services Task 4.1.

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- Provide the following deliverables (2 copies each):
  - Bid Tabulation
  - Addenda

**END TASK 4 – ADDITIONAL SERVICES**

**TASK 5 - CONSTRUCTION DESIGN SUPPORT SERVICES (ROADWAY)**

The Engineer on an "on-call" and "regular visit" basis will perform part-time construction observation services, during the project construction period. The Engineer's Project Manager and/or Project Engineer will be designated to serve as the Engineer's representative. The Engineer's personnel will assist the County's designated full-time Project Manager with the interpretation of the plans and specifications, with the preparation of County requested changes to the plans and specifications, and will review the construction progress and observe whether construction is in general compliance with the plans and specifications. Written minutes of site observation visits, telephone conversations and meetings regarding the project will be prepared and distributed to the Owner.

Construction services do not include the provision or direction of construction surveyors; do not include materials testing; do not include the preparation of "as-built drawings"; do not include the certification of the Contractor's work to be in compliance with the intent of the plans and specifications. The Engineer will not, at any time, control, direct, or otherwise directly or indirectly supervise the construction operators, the Contractor, subcontractors, the County, or agents or employees of the entities listed above.

It is assumed that the roadway construction phase of this project will be completed in 2016. Services will be provided at the standard hourly rates for the Engineer, current for the period the work is completed. The Engineer is not obligated to provide services beyond the budget amount established and approved by the County for these construction observation/design services.

**END TASK 5 – CONSTRUCTION DESIGN SUPPORT SERVICES (ROADWAY)**