

CITY OF THORNTON

REQUEST FOR PROPOSALS

FOR

CONSULTANT DESIGN SERVICES

**104TH AVENUE WIDENING (CO 44):
COLORADO BOULEVARD TO US-85
PRECONSTRUCTION ACTIVITIES**

**THORNTON PROJECT NO. 21-41
CDOT PROJECT NO. STU M286-048 (23863)**

FEBRUARY 2021

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III. NOTICE REQUEST FOR PROPOSALS

The City of Thornton, Colorado, (“Thornton”) respectfully requests separate sealed Proposals for Consultant Design Services for the **104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41** (hereinafter referred to as “Project”). Proposals will be received until **3:00 p.m., MST, March 12, 2021**.

Approved Methods for Submission of Proposals:

Physical proposals may be submitted by mail or courier service;

Or Physical Proposals will be received at the front entrance to City Hall at 9500 Civic Center Drive, Thornton, Colorado 80229-4326, between **12:00 p.m. and 3:00 p.m., MST, March 12, 2021**. Proposals shall be placed in the Contract Submission Dropbox provided at the front door of Thornton City Hall.

Late Proposals will not be accepted under any circumstances.

Project Description:

This Project consists of the preliminary engineering and environmental design to reach approximately thirty percent (30%) level design necessary to widen 104th Avenue from Colorado Boulevard to US-85 to a five-lane section with bike lanes, shared use paths and sidewalks, and two through lanes in each direction with a center turn lane. Major intersections will be evaluated for double left and right turn lane movements. This Project is receiving federal funds, and plans and specifications will need to conform to Colorado Department of Transportation (CDOT) standards and format. Traffic signal engineering for full replacement or major modifications shall be included in the Project scope at the intersections of Riverdale Road, McKay Road, and Brighton Road. Widening for the new road is anticipated on both sides of 104th and will be investigated by the Consultant for appropriateness as required for the new roadway and alignment. ADA ramps will need to be designed and replaced, or verified for compliance along the 104th Avenue corridor limits. ADA accessible routes shall be provided on the north and south sides of 104th as well as ADA compliant crosswalks at each of the signalized intersections. An analysis and recommendation shall be performed to determine where existing asphalt can be milled and overlaid and where full depth replacement is required either to accommodate alignment changes, or due to deteriorated pavement sections. The Consultant shall initiate the SUE utility process for the entire corridor limits. Landscaping will be limited to restoration of existing lawn and irrigation systems and seeding. Any medians required will include hardscape patterned concrete. New LED street lighting throughout the corridor shall be planned. Preliminary electrical and photometric plans shall be included in the scope of the Project. Pedestrian sidewalk connectivity shall be studied and connections shall be provided to adjacent city and county parks and open space.

The Consultant shall be responsible for initiating the environmental clearance process either through categorical exclusion or the NEPA process. All plans, reports and documents as required for the CDOT environmental clearance shall be included in the scope of the Project.

The Project limits (CO 44) are located in the City of Thornton, Adams County and the City of Commerce City. All entities including CDOT will review design proposals.

Thornton will be acquiring necessary Right-of-Way (ROW) for this Project. Services for the ROW acquisition including, legal descriptions and preliminary ROW plans will be required. The estimated total Project cost, including design, ROW acquisition, and construction shall be estimated by the Consultant to assist in further Project definition, Project phasing, and obtaining additional federal funds. The approximate funds allocated for the total Project cost are two million dollars (\$2,000,000).

Thornton utilizes the BidNet Direct System at www.BidNetDirect.com to distribute official copies of the Request for Proposals (“RFP”) for use in preparing Proposals. Proposing firms will be required to register with the website to download the RFP documents and addenda. There is no charge by BidNet Direct for this service. If you experience problems with the BidNet Direct website, please call 1-800-835-4603 for assistance. Proposing firms are required to acknowledge all addenda with their Proposal and are encouraged to either register with the website or to request to view the addenda posted on the Contract Administration bulletin board prior to submission of a Proposal. Proposing firms that do not acknowledge all addenda may be considered non-responsive. Upon request, the RFP documents, including addenda, are also available for viewing on the City of Thornton Website, <https://solicitations.thorntonco.gov/solicitations> or at the Contract Administration office located on the 2nd floor of City Hall at 9500 Civic Center Drive, Thornton, CO. Proposing firms that do not have download and/or printing capability in-house may contact a commercial reprographics company for assistance with downloading and printing the RFP.

Late Proposals will not be accepted under any circumstances. Any Proposal(s) received after the scheduled deadline for submitting Proposals will be returned to the proposing firm unopened. Sole responsibility rests with the proposing firm to see that their Proposal is received on or before the deadline.

Thornton reserves the right to reject any and all Proposals, in part or in whole, and to award the Project to the most responsive and responsible firm(s) as deemed in the best interest of Thornton; further, the right is reserved to waive any formalities or informalities contained in said Proposal(s).

An optional Pre-Bid Conference to discuss the Project will be conducted via web broadcast with Zoom video at **1:00 p.m., February 23, 2021**. All prospective Bidders are encouraged to attend. Prospective Bidders wishing to take part in the Pre-Proposal Conference should e-mail Keith Griess at Keith.griess@ThorntonCo.gov to receive a url link to access the Zoom video Pre-Proposal Conference. If possible, please hold all questions concerning the RFP until that time.

Physical proposals shall be submitted in a sealed envelope plainly marked on the outside with the proposing firm’s name and address and **“Request for Proposals, 104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41”**. Proposals delivered by mail or courier service shall be in the sealed envelope inserted into a separate mailing envelope. On the outside of the mailing envelope note **“Proposal Enclosed, 104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41”**. Please note that Proposals will be accepted via mail, courier or delivery services (FedEx, UPS, etc.). However, due to potential delays associated with COVID-19, proposing firms should consider submitting their Proposal earlier than normal. Proposing Firms are responsible for ensuring their Proposal is received prior to the due date/time.

Physical proposals shall be submitted in a sealed envelope plainly marked on the outside with the proposing firm's name and address and **“Request for Proposals, 104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41”**. Proposals delivered using the **drop box** shall be in the sealed envelope inserted into a separate mailing envelope. On the outside of the mailing envelope note **“Proposal Enclosed, 104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41”**.

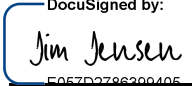
All questions shall be directed in writing to Keith Griess, Contract Administrator, 9500 Civic Center Drive, Thornton, CO 80229-4326, fax – 303-538-7556, or e-mail – Keith.griess@ThorntonCo.gov, 8:00 a.m. to 5:00 p.m., local time, Monday through Friday, excluding holidays.

Published at: BidNet Direct, COT Website, and the Contracts & Purchasing Bulletin Board.

First Advertisement: February 11, 2021, Northglenn/Thornton-Sentinel

Second Advertisement: February 18, 2021, Northglenn/Thornton-Sentinel

Third Advertisement: February 25, 2021, Northglenn/Thornton-Sentinel

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Jim Jensen
Contracts Manager

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IV. PROPOSAL INSTRUCTIONS AND INFORMATION

Thornton is soliciting written Proposals from qualified firms for Consultant Design Services for the **104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41**. To be eligible for consideration, the proposing firm must be capable of supplying the Services as described herein, and must meet all other criteria outlined in this RFP.

A. INQUIRIES AND CORRECTIONS

All inquiries relating to this RFP shall be addressed in writing to:

City of Thornton
Attention: Keith Griess, Contract Administrator
9500 Civic Center Drive
Thornton, CO 80229-4326
Fax: 303-538-7556
E-mail: Keith.griess@ThorntonCo.gov

If a proposing firm, subsequent to the Pre-Proposal Conference, finds discrepancies in or omissions from the RFP, or requires additional clarification of any part thereof, a written request for interpretation shall be submitted to the Contract Administrator. Any interpretation of or change made to the RFP will be made by written addendum to each proposing firm, and will become part of the RFP and of any Agreement awarded. Thornton will not be responsible for the accuracy of any other ORAL EXPLANATIONS, INTERPRETATIONS, OR REPRESENTATIONS. All inquiries shall be made in writing and all responses will be provided in writing, with responses being made available to all proposing firms. To be given consideration, inquiries must be received no later than 5:00 p.m. on the tenth (10th) Calendar Day prior to the date established for the submission of the Proposal. It shall be the responsibility of each proposing firm to verify that every addendum has been received prior to submitting a Proposal.

B. SUBMITTAL DATE AND LOCATION

All Proposals must be received in the drop box located directly in front of Thornton City Hall, City of Thornton, 9500 Civic Center Drive, 2nd Floor City Hall, Thornton, CO 80229-4326 **prior to 3:00 p.m. local time on March 12, 2021**. Physical proposals must be submitted in a sealed envelope plainly marked on the outside with the proposing firm's name and address and **"Request for Proposals, 104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41"**, and addressed to the Contracts Manager. Proposing firm's name and address shall also appear on the outside of the sealed envelope containing the Proposal. If the Proposal is sent by U.S. mail or courier service, the Proposal shall be contained in a sealed inner envelope or box, which is then inserted into the mailing envelope or box. Indicate **"Proposal Enclosed, 104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41"** on the outside of the mailing envelope or box.

C. LATE AND ELECTRONIC PROPOSALS

Late Proposals will not be accepted under any circumstance, and any Proposal so received shall be returned to the proposing firm unopened. In addition, proposals received via electronic devices other than the BidnetDirect.com website (i.e. e-mail) are not acceptable and will be rejected upon receipt. Proposing firms will be expected to allow adequate time for delivery of their Proposals either by airfreight, postal service, or other means.

D. CONFIDENTIAL AND PROPRIETARY INFORMATION

Prior to Award, any information contained within the Proposal may be held confidential and proprietary by Thornton as solely determined by Thornton. After Award, the information within the Proposal becomes public information with the exception of information that has been clearly marked as confidential and proprietary by the proposing firm. Any information marked confidential shall comply with Colorado's Open Records Act (CORA) and other applicable statutes. Thornton shall be held harmless from any claims arising from the release of confidential and proprietary information not clearly designated as such by the proposing firm or which does not comply with CORA. In general, it is not acceptable to Thornton to mark information other than financial statements, project financing data, litigation history, tax audit history, or client lists as confidential and proprietary. Further, it is not acceptable to mark price proposal information as confidential and proprietary. Failure to adhere to these restrictions may result in the entire Proposal being deemed non-responsive.

E. DEFINITION, CONTEXT, AND GENDER

Unless otherwise specified in this document, all words shall have a common meaning unless the context in which they are used clearly requires a different meaning. Words in the singular number include the plural, and in the plural include the singular. Additionally, words of the masculine gender include the feminine and the neuter, and when the sense so indicates, words of the neuter gender may refer to any gender.

F. CONDITIONS OF PROPOSAL SUBMITTAL

1. All proposing firms shall comply with all conditions, requirements, and specifications contained herein, and any departure from such conditions, requirements, or specifications may constitute sufficient cause for rejection of the entire Proposal.
2. The Proposal must be signed by a duly authorized official of the proposing firm submitting the Proposal.
3. No Proposal will be accepted from any person, firm, or corporation that is in arrears for any obligation to Thornton, or that otherwise may be deemed irresponsible, unresponsive, or untrustworthy by Thornton staff or Thornton City Council.

4. Only one (1) Proposal will be accepted from any person or corporation. If multiple options are requested or offered, each option must be submitted under a single Proposal and in a single envelope or box.
5. All terms and prices quoted must be firm for a period of ninety (90) Calendar Days from the Proposal submittal date or until Award, whichever is sooner.
6. Thornton reserves the right to reject any and all Proposals, or any part thereof. Thornton further reserves the right to waive any formalities, or informalities contained in any Proposal, and to award the Agreement to the most responsive, responsible, and trustworthy proposing firm as deemed in the best interest of Thornton.
7. All Proposals shall be prepared in a comprehensive manner as to content, but no necessity exists for expensive binders or promotional materials.
8. All costs, including travel and expenses incurred in the preparation of the Proposal, shall be borne solely by the proposing firm.
9. Section 7.4 of the Thornton City Charter prohibits Thornton from entering into any contracts involving an amount in excess of one hundred dollars (\$100) in which an elective or appointive officer or any member of the officer's family has any pecuniary interest, direct or indirect, in the proposing firm or this RFP. Certain other restrictions may also apply to contracts in which an employee, member of a board or commission, City Council member or member of their family has an existing or pending financial or personal interest. For the purposes of this Charter Section, a domestic partner shall be considered a family member. Therefore, the proposing firm shall submit with the Proposal the following declaration contained in Exhibit 1, Acceptance of Conditions Statement.

No City Council member, member of a board or commission, Municipal Judge, City Manager, City Attorney, or employee of the City of Thornton, or any such person's family member, domestic partner, or person assuming a relationship being the substantial equivalent of the above, has an existing or pending direct or indirect financial, pecuniary, or personal interest in the proposing firm or this RFP, except as follows (list, if any): _____

10. Thornton reserves the right to negotiate final terms with the selected firm, which terms may vary from those contained in this document.
11. Thornton reserves the right to request a client list from the proposing firm, for the purpose of determining potential conflicts of interest. Such list shall be considered proprietary.
12. Thornton will not return Proposals, or other information supplied to Thornton, to the proposing firms.

G. EVALUATION OF PROPOSALS

All Proposals will be evaluated by a Project Committee assigned by the City Manager, or his designee. Proposals shall be evaluated on the basis of the Evaluation Criteria set forth herein. In addition, any other pertinent information which becomes available during the evaluation, interview, or negotiations may be considered in the evaluation. The committee may make a recommendation for award on the basis of the Proposals received, or may choose to "short list" prospective firms for further consideration, which may include interviews and/or negotiations. The proposing firm selected for the award will be chosen on the basis of the apparent greatest benefit to Thornton, and not necessarily on the basis of lowest price. The City Manager, or his designee, shall make the final determination of the firm selected.

H. EVALUATION CRITERIA

Proposals shall be evaluated on the basis of the following criteria:

1. Responsiveness to the needs of Thornton and the degree to which the Proposal meets or exceeds the requirements of the RFP, including the time required to complete the Project, the proposed solutions offered, the means and methods of accomplishing the Services, and the Scope of Services offered.
2. Responsibility and trustworthiness of the proposing firm, including financial capability to perform the Project and claims and litigation history.

Consultant Team Factors:

1. **Project Team:** Provide team organizational chart to include interface with City of Thornton Project Manager, City of Commerce City and Adams County, CDOT and Contract Administrator. Outline Roles and Responsibilities, lines of communication and key-player contact information. Identify subconsultants and in-house team-members. Include team member Qualifications and Experience. Discuss how your firm will ensure team-integrity/continuity through the duration of this Project.
2. **Firm Capability:** Discuss firm's existing workload and capacity to complete this Project with existing personnel, to include estimated dedication of resources (Professional and Technical).
3. **Past Performance and Experience:** Proposing firms shall have completed at least three (3) similar projects in the past five (5) years to be considered minimally qualified and shall include a project narrative for each submitted project (Include: award price, location, performance period, and a picture). Proposing firm shall deliver Past Performance Questionnaires (PPQs) to 3-5 customers of similar size, scope and complexity, to be submitted directly from customer to the Thornton Contract Administrator prior to submission deadline. Discuss the firm's experience in dealing with federal, state, and municipal governments and other government agencies such as CDOT and Denver Regional Council of Governments (DRCOG) in projects of similar size, scope, and nature.

4. **Responsiveness:** Discuss the firm's location and ability to address concerns. Discuss the firm's knowledge of the Project area and understanding of local practices. The degree to which the Proposal meets or exceeds the terms of the RFP, creativity and flow in formatting response, thoroughness in addressing evaluation criteria. Include financial capability to perform the Project and disclosure of any claims and litigation history.
5. **Conformance to Disadvantaged Business Entity (DBE) goals:** Discuss approach and level of effort in achieving the DBE goals. What actions will be taken to secure a commitment of DBE and to secure the highest level of involvement of the DBE. Discuss the type of involvement of the DBE - in what areas?

Project Management Factors:

1. **Management and Customer Service:** Discuss the firm's approach to Customer Service; what management policies are implemented to alleviate work-load for City Project Managers or initiatives to streamline the design-delivery Process. Discuss any best management practices unique to your firm. Does the firm integrate TQM, Six-Sigma, ISO 9000?
2. **Project Control:** Provide a summary of the Firm's Quality Control initiatives and discuss how the firm will provide Quality Assurance. Discuss how the firm will identify risk of cost increase, degradation of quality, and its risk-mitigation strategy. Discuss how the firm will meet or exceed the projected schedule.

This information is further detailed in Exhibit 4 of this RFP.

I. DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (DBE)

It is the policy of the United States Department of Transportation (DOT) that DBE firms as defined in 49 C.F.R. Part 26, shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds. Thornton obtained a grant from the DOT for part of the cost of designing and constructing the Project. In order to qualify for grant funds, Thornton and its Consultants must comply with DOT regulations covering the participation of small business firms owned or controlled by socially and economically disadvantaged individuals which are defined in 49 C.F.R. Part 23.

The proposing firm shall make good faith efforts, as defined in Appendix A 49 C.F.R. Part 26, to subcontract ten and a half percent (10.5%) of the total dollar value of the Agreement covered by this RFP to DBE firms. In the event that the successful proposing firm for this solicitation qualifies as a DBE, the Agreement goal shall be deemed to have been met. Individuals who are reputedly presumed to be socially and economically disadvantaged include Women, Blacks, Hispanics, Native Americans, Asian-Pacific Americans, and Asian-Indian Americans. A proposing firm which fails to meet the goal or which cannot demonstrate that it made good faith efforts to meet that goal will be considered non responsive to these Request for Proposal Instructions. A

current list of certified firms, and any necessary documents to be submitted, may be obtained from the State of Colorado Department of Transportation (State). CDOT DBE Information is available at: <http://www.coloradodot.info/business/civilrights/dbe>.

CDOT Civil Rights & Business Resource Center
4201 East Arkansas Avenue, Room 150
Denver, CO 80222303-757-9234 - Office
800-925-3427 - Toll Free
303-952-7088 – Fax
dot_civilrights@state.co.us

Within five (5) consecutive Calendar Days of the deadline date for submitting Proposals, the proposing firms shall submit a Letter of Intent for each DBE listed in the proposal form as a subconsultant. Each Letter of Intent shall be accompanied by the subconsultant's certification letter from the State or a copy of its application for certifications, which has been submitted to the State.

If any proposing firm does not meet the Project goal set forth above, it shall submit documents demonstrating that it made good faith efforts to achieve the goal. A copy of Appendix "A" to 49 C.F.R. 26 entitled "Guidance Concerning Good Faith Efforts" may be obtained from the State.

In order to maximize business opportunities for DBE firms, proposing firms are urged to meet the DBE goal by subcontracting with as many DBE firms as possible. Thornton strongly discourages proposing firms from requiring exclusive dealing commitments from DBE firms which would prevent them from being considered as subconsultants by other proposing firms.

J. GENERAL REQUIREMENTS OF THE SUCCESSFUL PROPOSING FIRM

1. The successful proposing firm shall enter into a written Agreement with Thornton in the form attached hereto as Exhibit 2 and incorporated by reference herein.
2. The successful proposing firm shall be required to maintain insurance coverages as set forth in Exhibit 2.
3. The successful proposing firm shall be prohibited from assigning or subcontracting the whole, or any part of the Agreement, without the prior written consent of Thornton.
4. The successful proposing firm shall not hire, discharge, promote, demote, or otherwise discriminate in matters of compensation, terms, conditions, or privileges of employment against any person otherwise qualified solely because of race, color, creed, religion, national origin, ancestry, gender, physical or mental disability, or age.
5. The successful proposing firm and its employees will operate as an independent contractor and will not be considered employees of Thornton.

V. PROPOSAL PREPARATION

A. Proposals submitted shall contain all information as requested herein, and any additional information necessary to evaluate the overall benefit of the Proposal to Thornton.

1. If your firm is submitting a physical proposal submission and **not** through the Vendor portal of BidNet, then the following items shall also be included:
 - a. One (1) original paper copy of the proposal submission with the proposal stamped as "Original".
 - b. One (1) electronic copy on a flash drive of the proposal submission. All envelopes containing these items shall be clearly marked.

Note: Vendors submitting confidential information shall only submit one (1) copy of such information. When submitting electronically through the BidNetDirect.com vendor portal, confidential information shall be submitted in a separate PDF format file and marked confidential in both the file name and on the individual pages. When submitting a physical proposal, confidential information shall be placed in a separate sealed envelope and inserted into the main proposal submittal envelope or box. Any information not marked as confidential will be considered public record.

B. Proposals shall include the following:

1. A cover letter stating the name, address, and telephone number of the proposing firm, and bearing the signature of the person having the authority to make the Proposal for the proposing firm, and bind the firm in a formal Agreement with Thornton.
2. An executed Exhibit 1, Acceptance of Conditions Statement, which:
 - a. Affirms the acceptance of all conditions and requirements contained in this RFP;
 - b. Contains acknowledgement of all addenda issued; and
 - c. Lists the names of any of the proposing firms' employees who are family members of Thornton employees, officers, board or Council members.
3. The proposed Exhibit B, Consultant's Personnel and Subconsultants Listing, which is in Exhibit 2, Agreement, showing all personnel and subconsultants proposed for assignment to the Project team. Also submit resumes with education and work experience for key personnel.
4. A written narrative that defines the methods and means by which the proposing firm will perform the Services outlined in this RFP.
5. A Project timeline outlining the major tasks, phases, timeframes, and milestones necessary to complete the Project. Identify the specific employees and subconsultants that will be involved in each task.

6. A list of what portion of the Work, if any, will be subcontracted, along with a statement of DBE participation that describes the following:

Indicate if the firm is certified by CDOT as a DBE. State the amount of the firm's commitment to the DBE goal and identify the possible DBE subconsultants. Include "Letters of Acceptance and/or Rejection" from the DBE firms contacted.

Additionally, the Proposal shall include a description of each subconsultant's qualifications and the percentage of the Scope of Work which will be assigned to each subconsultant which the proposing firm intends to use, DBE or otherwise. Resumes for each subconsultant's key personnel must be included.

7. A list of at least five (5) references for which similar services have been provided. Include current contact names, addresses, and telephone numbers.
8. An executed Exhibit 3, Reference Authorization and Release Form.
9. A letter of reference from the proposing firm's primary bank or financial institution which indicates the bank's opinion on the proposing firm's financial capacity to perform their obligations under the Agreement. The letter shall be placed in a separate sealed envelope labeled with the firm name and the notation "CONFIDENTIAL FINANCIAL REFERENCE". The sealed confidential envelope shall be placed inside the envelope or box containing the firm's proposal.
10. Litigation and claims history over the past five (5) years in which the proposing firm or any of its principals were named in a claim or lawsuit related to the proposing firm's provision of goods or services. Include a list of any ongoing or settled claims, mediations, arbitrations, lawsuits, and judgments during the time period. List must contain a description of the type of claim or suit, the general nature of the dispute, whether it is ongoing or settled, and the general outcome if settled, but need not reveal the other parties' names if it is not in the public record. The history shall be placed in a separate sealed envelope labeled with the firm name and the notation "CONFIDENTIAL LITIGATION AND CLAIM HISTORY". The sealed confidential envelope shall be placed inside the envelope or box containing the proposing firm's proposal.
11. Any other information deemed necessary by the proposing firm.
12. Note that Exhibit E, Affidavit is not required to be submitted with the Proposal. This exhibit is required only from the selected firm, and only if the selected firm is a sole proprietorship or an individual. If applicable, the selected firm will submit Exhibit E and the required identification along with the executed Agreement.

- C. Submittal of a Proposal shall be taken as prima facie evidence that the proposing firm has full knowledge of the scope, nature, quality, and quantity of the Services to be performed, and the detailed requirements and conditions under which the Services are to be performed.

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VI. EXHIBIT 1

ACCEPTANCE OF CONDITIONS STATEMENT

A. Proposing firm indicates acceptance of the following conditions:

1. City of Thornton Charter Section 7.4 prohibits Thornton from making Contracts with firms which employ certain relatives of Thornton employees unless the City Council determines that the making of such a Contract is in Thornton's best interest.

No City Council member, member of a board or commission, Municipal Judge, City Manager, City Attorney, or employee of the City of Thornton, or any such person's family member, domestic partner, or person assuming a relationship being the substantial equivalent of the above, has an existing or pending, direct or indirect, financial, pecuniary or personal interest in the proposing firm or this Request for Proposal, except as follows (list, if any, or if none so state): _____

2. I/we hereby agree to all instructions, terms and conditions, and specifications contained herein.

B. I/we acknowledge the following addenda (list, if any, or if none so state): _____

Proposing Firm Name: _____

Address: _____

Telephone Number: _____

Submitted By: _____

(Signature)

Title: _____

Date: _____

Attest (by officer if corporation) or Notary (if individual): _____

My Commission Expires (if notarized): _____

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VII. EXHIBIT 2

AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES 104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41, CDOT Project No. STU M286-048

This Professional Consulting Services Agreement for **104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41, CDOT Project No. STU M286-048** ("Agreement") is made and entered into this _____ day of _____, 20__, by and between the **City of Thornton**, a Colorado home rule municipality, whose address is 9500 Civic Center Drive, Thornton, CO 80229 ("Thornton") and **Business Name** whose principal place of business is located at **Business Address** ("Consultant") each may be referred to collectively as, the ("Parties") or individually as the ("Party").

I. RECITALS

- A. Thornton requires Professional Consulting Services in connection with 104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41, CDOT Project No. STU M286-048 (the "Project").
- B. On or about **[Date]**, Thornton selected Consultant as the most qualified firm to provide the services described in this Agreement.
- C. Consultant selected by Thornton represents it has the requisite expertise and professional experience to perform the services this Project requires as described herein and Thornton needs during the term of this Agreement.

In consideration of the promises stated herein, the Parties agree as follows:

II. TERMS AND CONDITIONS

- A. **Definitions, Interpretation.** Capitalized terms not defined below shall have the meanings given them in the Contract Documents where they are defined. Further, otherwise consistent with the context, the singular shall include the plural and the plural shall include the singular. The titles of articles and sections used in this Agreement are primarily for the convenience but may be used as aids in interpreting any provision herein.
 - 1. **Agreement** means the Agreement between Thornton and Consultant, including Amendments, Change Orders, and exhibits made part of the Agreement upon or after its execution.
 - 2. **Contract Documents** consist of those documents identified in the Agreement, and Change Orders and Amendments issued after execution of the Agreement.

3. Day in any Contract Document refers to a calendar day of 24 hours measured from midnight to the next midnight.
4. Drawings are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, diagrams, and notes, also sometimes referred to as plans. The Drawings may contain Specifications, and the Specifications may contain Drawings.
5. Commencement Date is the designated date on which it becomes effective, but if no such date is designated, it is the date on which Thornton signs the Agreement.
6. Including shall, unless otherwise specifically stated, mean ***including, but not limited to*** and words such as ***hereby, herein, and hereunder*** and words of similar import shall be construed to refer to this Agreement in its entirety.
7. Specifications are that part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.
8. Subconsultant (“Subcontractor”) is a person or entity retained by Consultant as an independent contractor to provide labor, materials, equipment, and/or services necessary to complete a specific portion of the Work; or any other party supplying labor and material or only labor for Work under a separate contract or agreement with Consultant. Moreover, the terms “Subconsultant” and “Subcontractor” are interchangeable herein and will, at all times, have, express or convey the same meaning. The term does not include a Separate Consultant or a Separate Consultant’s subcontractors.
9. Work (“Services”) is the various elements identified and required by the Contract Documents and includes and is the result of performing or providing all labor, services, and documentation necessary to produce, furnish, install, and incorporate all materials and equipment necessary to complete the services in accordance with the Contract Documents. Moreover, the terms “Work” and “Services” are interchangeable herein and will, at all times, have, express or convey the same meaning.

B. Contract Documents.

1. The following documents, including all exhibits and attachments listed, contained, or referenced in this Agreement, by this reference are incorporated verbatim into this Agreement:

- a. Thornton Approved Amendments to this Agreement.
 - b. This Agreement for Professional Consulting Services (together with Exhibits);
 - i. Exhibit A Consultant's General Scope Of Services
 - ii. Exhibit B Personnel and Subconsultants Listing
 - iii. Exhibit C Schedule Of Charges
 - iv. Exhibit D Project Concept
 - v. Exhibit E Affidavit (if applicable)
 - c. Purchase Orders.
2. In the event there is a conflict between any of the above-listed documents, the provisions of the document listed first in order shall govern over those documents listed in descending order in subparagraph B.1 above after the first listed document
 3. Service Provider may need additional documents to perform the required Work and Services, or to clarify certain aspects of the Work and Services, that are not listed in Section B.1 above. Such documents, unless specifically identified as such, are not Contract Documents. These documents, by way of example include, but are not limited to:
 - a. The Request for Proposals (including Addenda);
 - b. The Service Provider's response to the Request for Proposals;
 - c. Other Thornton policies and procedures as applicable.
 - d. CDOT Forms
 4. Consultant shall perform the Services with the staff identified in the attached **Exhibit B**, unless otherwise authorized in writing by Thornton.
- C. **Project Description.** This Project consists of the preliminary engineering and environmental design to reach approximately thirty percent (30%) level design necessary to widen 104th Avenue from Colorado Boulevard to US-85 to a five-lane section with bike lanes, shared use paths and sidewalks, and two through lanes in each direction with a center turn lane. Major intersections will be evaluated for double left and right turn lane movements.
- D. **Consultant's Scope of Services.** Upon recipient of a written Notice to Proceed from Thornton, Consultant acknowledges that its scope or services includes furnishing all of the technical, administrative, professional, and other labor; all supplies and materials, equipment, printing, vehicles, local travel, office space and facilities, testing and analyses, calculations, and any other facilities or resources required to perform and complete the Services described in the attached **Exhibit A** ("Scope of Services" or "Services").

E. **Term; Commencement and Termination Dates.** This Agreement shall commence on the date written above and shall terminate at such time when all of the Scope of Services in **Exhibit A** up to, and through the end of the Warranty Phase are complete, or upon Thornton providing Consultant with seven (7) Calendar Days advance written notice, whichever occurs first. In the event this Agreement is terminated by Thornton for convenience, Thornton shall issue a written Notice of Intent to Terminate and Thornton shall pay Consultant for all Services previously authorized and completed prior to the date of the Notice of Termination and Consultant shall not be entitled to profit or overhead on uncompleted Services. If, however, Consultant has substantially or materially breached the terms of this Agreement, Thornton shall have any remedy or right of set-off available at law and equity.

F. **Compensation.**

1. **Remuneration.** Thornton agrees to pay Consultant's billable hourly rates and approved reimbursable expenses as set forth in the attached **Exhibit C, Schedule of Charges**, provided, however, the maximum amount Thornton will pay Consultant under this Agreement is not to exceed _____ dollars (\$) without a written amendment executed by the Parties.
2. **Invoicing.**
 - a. Consultant shall prepare and send by electronic format a detailed monthly invoice to ap.invoices@ThorntonCo.gov.
 - b. Invoices become due and payable thirty (30) days after date of receipt by Thornton of a complete and correct invoice.
 - c. Invoices shall reference the Purchase Order Number assigned by Thornton, and be itemized showing hourly breakdowns for personnel, and other charges.
 - d. Each invoice will show the total amount from the date of the original Agreement, and any subsequently issued Purchase Orders and amendments that change the amount of the Agreement. In addition, invoices must include billing and payment summaries up to the date of the submitted invoice. Thornton reserves the right to withhold final payment until the Services are complete. Consultant shall not perform any Services without receiving a Purchase Order issued by Thornton.
 - e. Consultant shall break down invoices by the phases specified in the Scope of Work. Each phase shall be further itemized by cost for each completed task performed for that phase. Consultants will only invoice Thornton for work that is performed to Thornton's

satisfaction, or the percentage of work satisfactorily performed for that phase, unless Service Provider has Thornton's written approval in advance. Under no circumstances will Consultant submit an invoice for work for more than the total amount specified for any given phase. Furthermore, under no circumstances may Consultant bill or otherwise invoice for work not specifically authorized.

G. **Changes to Consultant's Scope of Services, Terms and Conditions.**

1. A change in Consultant's Scope of Services is any change or amendment of Services that is different from, or in addition to Consultant's General Scope of Services as defined in **Exhibit A** of this Agreement.
2. No change to the General Scope of Services, to other Contract Documents, including any request for additional compensation, shall be effective unless authorized by a written amendment executed by Thornton's City Manager ("Manager") or Manager's designee(s).
3. Except as expressly provided herein, no agent, employee, or representative of Thornton has the authority to change or modify - directly or by an implied course of action, the General Scope of Services or the terms of this Agreement.

H. **Consultant's Personnel, Subcontracting.**

1. Approval of Key Professionals. Consultant shall perform the Services with the persons, personnel, subconsultants and named entities identified in the attached **Exhibit B**, unless otherwise authorized in writing by Thornton. All of Consultant's key professional personnel identified in **Exhibit B** shall be assigned by Consultant or its subconsultant (including any subcontractors) to perform the Services under this Agreement. If Thornton requires Consultant to identify certain subcontractors, other entities, personnel or individuals ("Key Professionals") before the Agreement's commencement date for Thornton's review and acceptance, Consultant shall submit a list of Key Professionals, along with their résumés and information, describing each one's abilities to perform their assigned tasks no later than thirty (30) days before this Agreement's commencement date. If Thornton does not respond within 15 days from receiving Consultant's list, all listed Key Professionals will be deemed approved by Thornton.
2. Replacement of Key Professionals. The Parties understand that Key Professionals will be engaged to perform their specialty Services required by this Agreement, and Consultant and its subconsultant shall retain Key Professionals for the term of this Agreement to the extent practicable and to the extent their specialties maximizes the quality of Services performed hereunder. If Consultant decides to replace a Key Professional, it shall notify Thornton in writing of the changes it desires to make. Thornton will

respond to Consultant regarding replacement of a Key Professional within fifteen (15) days from the date Thornton receives Consultant's request. Consultant shall not replace any Key Professional without Thornton's written approval, which will not be withheld unreasonably.

3. Performance by Key Professionals. If, during the term of this Agreement, Thornton determines that a Key Professional's performance is unacceptable, they will notify Consultant and give Consultant the time that Thornton considers reasonable to correct such performance. Thereafter, if a Key Professional's performance is still unacceptable, Thornton will notify Consultant to reassign the Key Professional and Consultant shall use its best efforts to obtain an adequate substitute within ten (10) days from the date of the notice.
4. Consultant's Subconsultants.
 - a. Thornton's Approval Required. Consultant may retain and subcontract with subconsultants listed in **Exhibit B, Personnel and Subconsultants Listing**; however, Consultant shall not execute a final agreement with any other subconsultant without obtaining written approval from Thornton first. For Thornton's approval, Consultant must submit a written description of the nature and extent of the Services a subconsultant will provide, and the subconsultant's name, address, professional experience and qualifications and any other important information. Thornton's approval of the subconsultant shall not relieve Consultant of any obligations under this Agreement. Since Consultant's representations and professional qualifications is the consideration for Thornton to enter into this Agreement, Thornton, for any reason, has the right to reject any proposed subconsultant it deems unqualified or unsuitable to perform the proposed Services, and to limit the number of subconsultants retained by Consultant.
 - b. Conflict of Interest Prohibited. No Consultant shall retain any subconsultant to perform any Services under this Agreement if Consultant, by making a reasonable inquiry, knows or should know is connected with the sale or promotion of equipment or material used to perform any Services that would be a conflict of interest. However, in unusual circumstances, Thornton may waive in writing a conflict of interest provided Consultant has fully disclosed the conflict of interest beforehand. If at any time, the Consultant becomes aware of a potential conflict of interest, it shall immediately notify Thornton in writing of the potential conflict. The notification shall contain all pertinent information to fully and accurately describe the conflict of interest. Thornton, in its sole discretion, shall determine the existence of a conflict of interest and may terminate

this Agreement in the event such a conflict exists after it has given Consultant written notice describing the conflict.

5. Approval, Rejection of Consultant's Key Professionals, Personnel and Subconsultants. Thornton may, in its reasonable discretion, approve or reject any person or persons at any time working for Consultant. No acceptance by Thornton of any Key Professional, subcontractor, supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Thornton to reject defective Work.
6. Waiver. Consultant shall be fully responsible to Thornton for all acts and omissions of its subcontractors, Key Professionals and other persons performing or furnishing any Work or Services on behalf of Consultant just as Consultant is responsible for Consultant's own acts and omissions. Any agreement between Consultant and its approved subconsultant(s), Key Professionals and other persons must have a legally binding provision whereby they agree to waive all rights to make a claim of liability or payment against Thornton arising out of the performance of the Services under this Agreement. Nothing in the Contract Documents shall create any contractual relationship or obligation to pay any monies due to the same, except as the law may require.

I. Compliance with All Laws and Regulations.

1. All of the Services performed under this Agreement by Consultant shall comply with all applicable laws, rules, regulations, and codes of the United States and the State of Colorado and with the charter, ordinances, and rules and regulations of Thornton.
2. All applicable state and federal laws, county and city ordinances, licenses and regulations of all authorities having jurisdiction over this Agreement and the Services shall apply to this Agreement throughout and will be deemed to be included in this Agreement the same as though written out in full.
3. Worker Status. Pursuant to Colorado law, Consultant does, by its signature and attestation on this Agreement certify to the following:
 - a. Consultant, as of the date of this Agreement, does not and shall not knowingly employ or contract with an illegal alien who will perform Services under this Agreement.
 - b. Consultant shall participate in either the Employment Verification Program ("E-Verify Program") created in Public Law 104-208, as amended and expanded in Public Law 108-156, as amended, and jointly administered by the United States Department of Homeland Security and the Social Security Administration, or its successor program, or the Department Program, which is the employment

verification program established by the Colorado Department of Labor and Employment (the "Department") pursuant to C.R.S. §§ 8-17.5-102(5)(c) in order to confirm the employment eligibility of all employees who are newly hired for employment to perform Services under this Agreement.

- c. Consultant has confirmed the employment eligibility of all employees who are newly hired for employment to perform Services under this Agreement through participation in either the E-Verify Program or the Department Program.
- d. Consultant shall not enter into a contract with a subconsultant that fails to certify to Consultant that the subconsultant shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.
- e. Consultant shall not use either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.
- f. If Consultant obtains actual knowledge that a subconsultant performing work under this Agreement employs or contracts with an illegal alien, Consultant shall:
 - i. Notify the subconsultant and Thornton within three (3) days that Consultant has actual knowledge that the subconsultant is employing or contracting with an illegal alien; and
 - ii. Terminate the subcontract with the subconsultant if within three (3) days of receiving the notice required pursuant to this subparagraph, the subconsultant does not stop employing or contracting with the illegal alien; except that Consultant shall not terminate the subcontract with the subconsultant if during such three (3) days the subconsultant provides information to establish that the subconsultant has not knowingly employed or contracted with an illegal alien.
- g. Consultant shall comply with any reasonable request by the Colorado Department of Labor and Employment made in the course of an investigation that the Department is undertaking pursuant to the authority established by C.R.S. § 8-17.5-102(5).
- h. If Consultant violates any provision of this certification, Thornton may terminate this Agreement for breach of contract. If this Agreement is so terminated, Consultant shall be liable for actual and consequential damages suffered by Thornton.

- i. To the extent it applies, in accordance with Colorado law, if Consultant is a natural person eighteen (18) years of age or older and a sole proprietor, Consultant by signing this Agreement affirms that upon Notice of Award, Consultant will complete and file with Thornton the attached **Exhibit E, Affidavit** and provide acceptable identification as described in the Affidavit.

J. Confidentiality of Thornton's Information.

1. Thornton will provide Consultant with reports and such other data as may be available to Thornton ("Project Information") and reasonably required by Consultant to perform the Services.
2. No Project Information shall be disclosed by Consultant to third parties without prior written consent of Thornton or pursuant to a lawful Court Order directing such disclosure.
3. All Project Information provided by Thornton to Consultant shall be returned to Thornton at the end of the Project upon Thornton's request. Consultant is otherwise authorized by Thornton to retain copies of Project Information at Consultant's expense.

K. Ownership, Use of Work Product.

1. All Services, data, drawings, designs, plans, reports, studies, computer programs (nonproprietary), computer input and output, analyses, tests, maps, surveys, aerial photography or any other materials ("Work Product") developed for this Project by Consultant are and shall be the sole and exclusive property of Thornton. Aerial photography supplied by Thornton to Consultant shall not be utilized by Consultant for any purpose other than the Project.
2. Consultant hereby transfers any copyright, trademark, or other intellectual property rights of Work Product to Thornton. However, any reuse of Work Product by Thornton without prior written authorization by Consultant other than for the specific intended purpose of this Agreement will be at Thornton's risk.
3. Consultant shall provide Thornton with ten (10) days of advance written notice that it has Project Information and Work Product it intends to dispose of, during which time Thornton may take physical possession of such documents.

L. Compliance With Patent, Trademark and Copyright Laws.

1. Consultant warrants that all Services performed under this Agreement shall comply with all applicable patent, trademark, and copyright laws, rules,

regulations, and codes of the United States. Consultant shall not utilize any protected patent, trademark, or copyright in performance of the Services unless Consultant has obtained proper permission and all releases and other necessary documents. If Consultant specifies or uses any material, equipment, process, or procedure, that is protected, Consultant shall disclose such patents, trademarks, and copyrights in Consultant's deliverables.

2. Consultant releases, indemnifies, and holds harmless Thornton, its officers, agents, and employees from any and all claims, damages, suits, costs, expenses, liabilities, actions, or proceedings of any kind or nature whatsoever, including attorneys' fees and costs, of or by anyone whomsoever, in any way resulting from, or arising out of, directly or indirectly, the performance of Services under this Agreement which infringes upon any patent, trademark, or copyright protected by law.

III. GENERAL CONDITIONS

- A. **Indemnification.** To the fullest extent permitted by law, Consultant agrees to defend, indemnify and hold harmless Thornton, its officers, agents and employees, from and against all liability, judgments, damages or losses which arise out of, result from, or are in any manner connected with the Services to be performed under this Agreement, to the extent it is determined such liability, judgments, damages or losses were caused by the negligent acts, errors, or omissions of Consultant, any subconsultant of Consultant, or any officer, employee or agent of Consultant, or anyone else employed directly or indirectly by any of them or anyone for whose acts any of them may be liable and will pay to Thornton any expenses incurred by reason of such liability, judgments, damages or losses, including, but not limited to, court costs and reasonable attorneys' fees incurred in defending or investigating such claims. Such payments on behalf of Thornton shall be in addition to any and all other legal remedies available to Thornton and shall not be considered Thornton's exclusive remedy.
- B. **Insurance.** Consultant agrees to procure and maintain in force during the term of this Agreement, at its own cost, the following coverages:
1. **Workers' Compensation Insurance.** Workers' Compensation Insurance as required by the Labor Code of the State of Colorado and Employer's Liability Insurance. Statutory limits are required. Evidence of qualified self-insured status may be substituted.
 2. **Commercial General Liability Insurance** **(MINIMUM LIMITS)**
 - a. Each Occurrence \$2,000,000
 - b. Products/Completed Operations Aggregate \$2,000,000

- c. Personal and Advertising Injury \$2,000,000
- d. General Aggregate \$2,000,000
- e. This policy shall include coverage protecting against bodily injury, property damage, and personal injury claims arising from the exposures of:
 - i. Premises-operations;
 - ii. Products and completed operations including materials designed, furnished, and/or modified in any way by Consultant;
 - iii. Independent subcontractors or subconsultants;
 - iv. Contractual liability risk covering the indemnity obligations set forth in this Agreement; and
 - v. Where applicable, liability resulting from explosion, collapse, or underground exposures. Where applicable, liability resulting from explosion, collapse, or underground exposures.
- f. If the above insurance is written on a claims-made form, it shall continue for three (3) years following termination of this Agreement. The insurance shall provide for a retroactive date of placement prior to or coinciding with the effective date of this Agreement.

3. Professional Liability Insurance **(MINIMUM LIMITS)**
- a. Each Claim \$1,000,000
 - b. Aggregate \$2,000,000
 - c. If the above insurance is written on a claims-made form, it shall continue for three (3) years following termination of this Agreement. The insurance shall provide for a retroactive date of placement prior to or coinciding with the effective date of this Agreement.
4. Automobile Liability Insurance. Automobile Liability Insurance with minimum combined single limits for bodily injury and property damage of not less than one million dollars (\$1,000,000) for any one (1) occurrence. This insurance will insure against bodily injury and/or property damage arising out of Consultant's operation, maintenance, use, loading or unloading of any auto including owned, non-owned, hired, and employee autos.
5. Additional Insured. Consultant shall name Thornton, its officers, agents, and employees as additional insureds with respect to the commercial general liability and auto liability coverages required herein. A Certificate of Insurance shall be completed and forwarded, along with the Additional Insured Endorsements, to Thornton by Consultant's Insurance Agent(s) as

evidence that policies providing the required coverages, conditions, and minimum limits are in full force and effect and shall be subject to review and approval by Thornton **prior to commencement of any Services under this Agreement.**

6. Certificates of Insurance. The initial completed Certificates of Insurance and Additional Insured Endorsements shall include Consultant's e-mail address for future inquiries and updates, and shall be sent to:

City of Thornton
Keith Griess, Contract Administrator
9500 Civic Center Drive
Thornton, CO 80229-4326

Subsequent Certificates of Insurance, along with the renewal Additional Insured Endorsements, indicating renewal of coverage(s) shall be sent to Thornton's Risk Management office at certificatesofinsurance@ThorntonCo.gov no later than thirty (30) days prior to the expiration date and shall indicate "Renewal COI" and the Project Number in the e-mail subject line.

Thornton further reserves the right to request and receive a certified copy of any policy and any endorsement. Consultant agrees to execute any and all documents necessary to allow Thornton access to any and all required insurance policies and endorsements.

7. Failure to Insure. Failure on the part of Consultant or a subconsultant to procure or maintain policies providing the required coverages, conditions, and minimum limits **shall constitute a material breach of Agreement upon which Thornton may immediately terminate this Agreement**, or at its discretion, Thornton may procure, or renew any such policy, or any extended reporting period, and may pay any and all premiums in connection therewith, and all monies so paid by Thornton shall be repaid by Consultant to Thornton upon demand, or Thornton may offset the cost of such premiums against any monies due or that become due to Consultant from Thornton.

8. Other Insurance Requirements.

- a. From time to time, Thornton, by mutual agreement with Consultant, may require Consultant to obtain other insurance with varying limits against other insurable hazards relating to the Services.
- b. Consultant shall procure and maintain and shall cause any subconsultants to procure and maintain the minimum insurance coverages listed herein. Such coverages shall be procured and maintained with forms and insurers acceptable to Thornton. All

coverages shall be continuously maintained to cover all liability, claims, demands, and other obligations assumed by Consultant pursuant to this Agreement. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

- c. Every policy required above shall be primary insurance and any insurance carried by Thornton, its officers, or its employees shall be excess and not contributory insurance to that provided by Consultant. Consultant shall be solely responsible for any deductible losses under the policies required above.
- d. Consultant shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to this Agreement by reason of its failure to procure and maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.
- e. All policies shall include a provision that the coverages afforded under the policies shall not be canceled or materially changed prior to the natural termination date until at least thirty (30) days prior written notice has been sent to Thornton. The Certificate(s) shall indicate the form used, if any, under which this provision is included.

C. **Governmental Immunity.** The Parties understand and agree that Thornton, its officers, and its employees are relying on, and do not waive or intend to waive by any provision of this Agreement, the monetary limitations or any other rights, immunities and protections provided by the Colorado Governmental Immunity Act, C.R.S. 24-10-101 et seq., as from time to time may be amended, or otherwise available to Thornton, its agents, officers, or employees.

D. **Independent Contractor.**

- 1. It is understood and agreed by and between the Parties that the status of Consultant shall be that of an independent contractor and of a person retained on a contractual basis to perform professional and/or technical services for limited periods of time and it is not intended, nor shall it be construed, that Consultant is an employee or officer of Thornton under Chapter VII of the City Charter, or Chapter 54 of the City Code, or for any purpose whatsoever.
- 2. Without limiting the foregoing, the Parties hereby specifically acknowledge that **Consultant** or any employee, agent or subconsultant of Consultant **is not entitled to unemployment insurance benefits unless unemployment compensation coverage is provided by Consultant or some other entity besides Thornton, that Consultant is not entitled to Workers' Compensation benefits from Thornton and that Consultant**

is obligated to pay federal and state income tax on any monies earned pursuant to this Agreement. The Parties further acknowledge that the provisions of this paragraph are consistent with Consultant's insurance obligations which are set forth in this Agreement.

E. Termination.

1. Termination for Convenience.
 - a. Thornton shall have the right to terminate this Agreement at any time upon seven (7) days advance written notice to Consultant ("Notice of Termination").
 - b. Should Thornton terminate this Agreement for convenience, in accordance with subsection E.1.a above, Thornton shall pay Consultant for all Services previously authorized and properly completed prior to the date of termination set forth in the Notice of Termination. Consultant shall not be entitled to profit or overhead on uncompleted Services.
 - c. In any event, the terms and conditions of this Agreement shall survive the termination date of the Agreement and continue until the Services are complete to Thornton's satisfaction.
2. Termination for Cause. Thornton shall have the right to terminate this Agreement immediately upon notice to Consultant if Consultant has materially breached the terms of this Agreement. In such event, Thornton shall pay Consultant for all Services previously authorized and completed prior to the date of termination in compliance with the terms of this Agreement and to Thornton's satisfaction, provided that there shall be no limitation of Thornton's right to exercise any and all available legal and equitable remedies.
3. Termination for Non-Appropriation. In the event that the Thornton City Council fails to appropriate funds for the continuation of this Agreement for any fiscal year beyond the initial fiscal year hereof, Thornton may terminate this Agreement without penalty as of the end of the fiscal year for which funding was appropriated and shall be released of further obligations.

- F. Venue / Law / Statute Of Limitations.** This Agreement shall be governed by the laws of the State of Colorado, notwithstanding its choice of law principles. Any legal action concerning the provisions hereof shall be brought in the District Court, County of Adams, State of Colorado. Any action arising out of or relating to this Agreement or the Services asserted by Consultant against Thornton shall be brought within two (2) years from when the action accrued, pursuant to C.R.S. § 13-80-102(h).

- G. **Notice.** Any notice or communication between Consultant and Thornton which may be required, or which may be given, under the terms of this Agreement shall be in writing, and shall be deemed to have been sufficiently given when directly presented or sent pre-paid, first class United States Mail, addressed as follows:

THORNTON:

City of Thornton
Attention: Contracts and Purchasing Director
9500 Civic Center Drive
Thornton, CO 80229-4326

CONSULTANT:

Company Name
Attention:
Address

- H. **Exhibits.** All documents marked and referred to as “Exhibits” in this Agreement are incorporated by this reference and are made a part of this Agreement.
- I. **Assignment of Agreement Not Permitted.** Consultant shall not be entitled to assign, pledge, or transfer its duties and rights, in whole or in part, under this Agreement, or any Work, Services, or its rights to any payment from Thornton without the prior written consent of Thornton, which Thornton may withhold in its sole discretion. Any approved assignee of Consultant’s interest in this Agreement, any Work or Services shall execute a written acknowledgement in a form satisfactory to Thornton expressly agreeing to be bound by all of its terms. No assignment shall relieve Consultant of primary liability under this Agreement. In this regard, Consultant understands that the performance of the scope of work is considered personal services under this Agreement.
- J. **General Warranty.** Consultant will faithfully perform the services required under this Agreement in accordance with standards of care, skill, training, diligence, and judgment provided by competent professionals who perform services of a similar nature as described in this Agreement.
- K. **No Waiver of Rights.** No assent, expressed or implied, to any breach of any one (1) or more of the terms and conditions of this Agreement shall be deemed to be or taken to be by Thornton a waiver of any subsequent breach of any such terms and conditions.
- L. **Inspection of Records.** In connection with the Services performed hereunder, Thornton and any of its duly authorized representatives shall have access to all of Consultant’s and subconsultant’s books, documents, papers, and any other

records of Consultant and subconsultants that relate to the Services. Consultant further agrees that such records shall contain information concerning the personnel who performed the Services, the specific tasks they performed and the hours they worked. Consultant shall retain these records for three (3) years after termination of this Agreement.

- M. **Conflict of Interest.** Consultant agrees that it and its subsidiaries, affiliates, subconsultants, principals, or employees shall not engage in any transaction, activity, or conduct which would result in a conflict of interest. Consultant represents that it has disclosed any and all current or potential conflicts of interest. A conflict of interest shall include transactions, activities, or conduct that would affect the judgment, actions, or Services of Consultant by placing Consultant's own interests, or the interest of any party with whom Consultant has a contractual arrangement, in conflict with those of Thornton. Thornton, in its sole discretion, will determine the existence of a conflict of interest and may terminate this Agreement in the event such a conflict exists after it has given Consultant written notice, which describes the conflict. Consultant shall have twenty (20) days after the notice is received to eliminate or cure the conflict of interest in a manner acceptable to Thornton.
- N. **Coordination of Services.** Consultant shall fully coordinate its Services with other consultants, contractors or other entities performing services on the Project that interfaces with or is affected in any way by Consultant's Services, and with any interested Thornton or other governmental agencies.
- O. **Non-Discrimination.** Consultant, its agents, employees, contractors, and subconsultants shall not discriminate on the basis of race, color, creed, national origin, ancestry, age, gender, religion, or mental or physical disability in any policy or practice.
- P. **Advertising and Public Disclosures.** Consultant shall not include any reference to this Agreement or to the Services performed hereunder in any of its advertising or public relations materials without first obtaining the written approval from Thornton. Any oral presentation or written materials related to Consultant's Services shall include only presentation materials, Work product, designs, renderings, and technical data that have been accepted by Thornton. Thornton shall be notified in advance of the date and time of any such presentations. Nothing herein, however, shall preclude the transmittal of any information to officials of Thornton, including without limitation, the Mayor or member or members of City Council.
- Q. **Other Project Work.** Consultant and its subsidiaries and affiliates shall not bid upon or otherwise attempt to perform any other work associated with this Project. Consultant shall require in its contracts with its subconsultants that they and their subsidiaries or affiliates shall not bid upon or otherwise attempt to perform any work associated with this Project other than the Services described in their written agreements unless specifically approved in writing by Thornton.

- R. **Time is of the Essence.** The Parties agree that in the performance of the terms and requirements of this Agreement by Consultant that time is of the essence.
- S. **Inurement.** The rights and obligations of the Parties set forth herein shall inure to the benefit of and be binding upon the Parties and their respective successors and assigns permitted under this Agreement.
- T. **Headings.** The headings contained in this Agreement are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement.
- U. **Joint Venture.** If Consultant is a Joint Venture, participants shall be jointly and severally liable to Thornton for the performance of all duties and obligations of Consultant set forth in this Agreement.
- V. **Taxes and Licenses.** Consultant shall promptly pay, when they are due, all taxes, excises, license fees, and permit fees of whatever nature applicable to the Services, and shall take out and keep current all required municipal, county, state, or federal licenses required to perform the Services. Consultant shall furnish Thornton, upon request, duplicate receipts or other satisfactory evidence showing or certifying to the proper payment of all required licenses and taxes. Consultant shall promptly pay, when due, all bills, debts, and obligations it incurs performing the Services and to allow no lien, mortgage, judgment, or execution to be filed against land, facilities, or improvements owned by Thornton.
- W. **Severability.** In the event any of the provisions, or applications thereof, of this Agreement are held to be unenforceable or invalid by any court of competent jurisdiction, the validity and enforceability of the remaining provisions, or applications thereof, shall not be affected.
- X. **No Third Party Beneficiaries.** The enforcement of the terms and conditions of this Agreement and all rights of action relating to such enforcement, shall be strictly reserved to Thornton and Consultant and nothing contained in this Agreement shall give or allow any such claim or right of action by any other or third person on such Agreement. It is the express intention of Thornton and Consultant that subconsultants and any other persons other than Thornton or Consultant receiving any benefits from this Agreement shall be deemed to be incidental, and not intended, beneficiaries only.
- Y. **Electronic Signatures And Electronic Records.** The Parties consent to the use of electronic signatures. The Agreement, and any other documents requiring a signature hereunder, may be signed electronically by the Parties in the manner specified by any applicable City regulation, rule, and/or ordinance. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy

of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

- Z. **Entire Agreement.** The Parties acknowledge and agree that the provisions contained herein constitute the entire Agreement and that all representations made by any officer, agent, or employee of the respective Parties unless included herein are null and void and of no effect. No alterations, amendments, changes, or modifications to this Agreement, except those that are expressly reserved herein, shall be valid unless they are contained in an instrument, which is executed by the Parties with the same formality as this Agreement.

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This Agreement is expressly subject to and will not become effective or binding on Thornton until it is fully approved and executed by Thornton.

APPROVED AS TO LEGAL FORM:
John Mallonee, Acting City Attorney

CITY OF THORNTON, COLORADO:

By: _____

Kimberly Newhart
Finance Director

ATTEST:

CITY OF THORNTON, COLORADO:

Kristen N. Rosenbaum, City Clerk

Sean Saddler, PE Contracts and
Purchasing Director

ATTEST FOR FIRM SIGNATURE: (If corporation)	INSERT FIRM NAME (ALL CAPS):
_____ Signature	_____ Signature
_____ Print Name	_____ Print Name
_____ Title	_____ Title

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EXHIBIT A

CONSULTANT'S GENERAL SCOPE OF SERVICES

THE COMPLETE SCOPE OF WORK FOR CONSULTANT SERVICES INCLUDES:

PART 1 - PROJECT SPECIFIC AND THE ATTACHMENTS

ATTACHMENTS:

- ATTACHMENT "A" – REFERENCES
- ATTACHMENT "B" – SPECIFIC DESIGN CRITERIA
- ATTACHMENT "C" – DEFINITIONS

PART 2 - PRECONSTRUCTION TASK DESCRIPTIONS

SECTION 1 - PRECONSTRUCTION WORK TASK DESCRIPTIONS

SECTION 2 - SUBMITTALS

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PART 1
PROJECT SPECIFIC
TABLE OF CONTENTS

Description

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SECTION 2 PROJECT MANAGEMENT AND COORDINATION

SECTION 3 PROJECT DESCRIPTION

SECTION 4 KNOWN EXISTING FEATURES

SECTION 5 ITEMS TO BE FURNISHED BY CITY OF THORNTON (THORNTON)

SECTION 6 GENERAL INFORMATION

SECTION 7 WORK ACTIVITY ASSIGNMENTS

SECTION 8 SUBMITTALS

SECTION 9 AGREEMENT CONCLUSION

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SECTION 1

PROJECT SPECIFIC INFORMATION

1.01 Planned Improvements. This Project consists of the preliminary engineering and environmental design to reach approximately thirty percent (30%) level design necessary to widen 104th Avenue (CO 44) from Colorado Boulevard to US-85 to a five-lane section with bike lanes and sidewalks, and two through lanes each direction with center turn lanes. Major intersections will be evaluated for double left turn movement and right turn lanes. This Project is federally funded, and plans and specifications will need to conform to Colorado Department of Transportation (CDOT) standards and format. Traffic signal engineering for full replacement or major modifications shall be included in the Project scope at the intersections of Riverdale Road, McKay Road, and Brighton Road. Widening for the new road is anticipated on both sides of 104th and will be investigated by the Consultant for appropriateness as required for the new roadway and alignment. ADA ramps will need to be designed and replaced, or verified for compliance along the 104th Avenue corridor limits. ADA accessible routes shall be provided on the north and south sides of 104th as well as ADA compliant crosswalks at each of the signalized intersections. An analysis and recommendation shall be performed to determine where existing asphalt can be milled and overlaid and where full depth replacement is required either to accommodate alignment changes, or due to thin deteriorated pavement sections. Consultant shall initiate the SUE utility process for the entire corridor limits. Landscaping will be limited to restoration of existing lawn and irrigation systems. Any medians required will include hardscape patterned concrete. New Thornton owned LED lighting throughout the corridor shall be planned. Preliminary electrical and photometric plans shall be included in the scope of the Project. Pedestrian sidewalk connectivity shall be studied and connections shall be provided to adjacent city and county parks and open space.

The Consultant shall be responsible for initiating the environmental clearance process either through categorical exclusion or the NEPA process. All plans, reports and documents as required for the CDOT environmental clearance shall be included in the scope of the Project.

The Consultant shall ensure that the location of all of the subsurface utilities have been properly investigated, located and depicted on the drawings, and that all utility locations and depictions are in compliance with Colorado Senate Bill 18-167. Consultant shall further attempt to achieve ASCE 38 utility quality level B (or its successor utility quality level) on all utilities within any proposed excavation areas unless a reasonable rationale by a licensed Professional Engineer is provided in writing for not doing so.

Thornton will be acquiring necessary Right-of-Way (ROW) for this Project. Services for the ROW acquisition including, legal descriptions and preliminary ROW plans will be required. The estimated total Project cost, including design, ROW acquisition, and construction shall be estimated by the consultant to assist in further Project definition and obtaining additional federal funds. The current total funds allocated for the Project cost anticipated for the consulting work included in this scope is two million dollars (\$2,000,000) which is eighty percent (80%) federally funded and twenty percent (20%) Thornton funded.

Additional information:

- Drainage Improvements – throughout the corridor as required for the Project. Water quality is required.
- Replace and Upgrade Traffic Signals at intersections within Project limits.
- Streetlights required within the area located in Thornton on a separate metered system. Commerce City and Adams County lights on separate systems.
- Milling and paving and restriping the entire Project limits.
- Widening and acquisition of ROW within Project limits.
- Other appurtenances that are impacted by the Work are included, such as signal poles and cabinets, ADA ramps, and landscaping.
- Sidewalk connections.
- Thornton owned fiber optic cable may be required. Relocation of existing city fiber optic cable may be required.
- Concrete box extension of the Lower Clear Creek crossing is required.
- Reconstruction of the Fulton Ditch Bridge to accommodate widened roadway.
- Extension of the Bull Seep pipe is required.
- Evaluation of the Grange Hall Flood plain, Platte River Floodplain, etc.

The Project concept is generally illustrated in Exhibit D, Project Concept.

1.02 Project Goal. This Project is intended to produce the following improvements:

- Improved safety;
- Establish bicycle and pedestrian facilities;
- Reduce environmental impacts;
- Increased capacity;
- Higher level-of-service (Intersection/signal operation); and
- Improved riding surface (smoother or stronger pavement).

1.03 Project Location. This Project is located on 104th Avenue between the intersection of Colorado Boulevard and US-85. The Project limits are more specifically illustrated in Exhibit D, Project Concept.

1.04 Project Cost. The estimated cost of the preliminary design and environmental work for the Project is estimated to at two million dollars (\$2,000,000).

1.05 Work Duration. The time for the Work described in this scope is: Thirty percent (30%) Design, one hundred eighty (180) Calendar Days (2021); Right-of-Way (ROW) acquisition two hundred eighty (280) Calendar Days (2021-2022);

1.06 Consultant Responsibility. The Consultant is responsible for:

- Project Design and ROW documentation including, all items noted in Section 7 and described in detail in Part 2.

1.07 Work Product. Detailed Work product requirements are described in the following sections and in Part 2. The Consultant Work products are:

- Pre Design Reports;
- Preliminary Design (thirty percent [30%] level);
- Preliminary Specifications (thirty percent [30%] level);
- Field Inspection Review (FIR) Plans (thirty percent [30%] level);
- ROW Plans and Legal Descriptions (thirty percent [30%] level);
- Consultant shall provide recommendation on required environmental studies, reports, and plans;
- Consultant will be responsible for the environmental Scope of Work, including all deliverables needed for the environmental clearance of the Project.

1.08 Work Product Completion. All submittals must be accepted by Thornton's Project Manager or his designee.

1.09 Additional Project Information. Additional information regarding this Project is included in the following documents:

- GIS Maps depicting the general location of water and sewer pipelines;
- City of Thornton Transportation Plan 2009, as amended in 2016;
- City of Thornton Traffic Signal Specifications for CIP Projects.
- Standards and specifications from Adams County, City of Commerce City and City of Thornton; and
- TIP application.

1.10 Scope of Work Organization. Project Scopes of Work are divided into two (2) parts. For this Project, both Parts 1 and 2 are Project specific and are attached to the Agreement.

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SECTION 2

PROJECT MANAGEMENT AND COORDINATION

2.01 Contacts.

City of Thornton:

The Contract Administrator for this Project is:

Keith Griess
City of Thornton: Contract Administrator
9500 Civic Center Drive
Thornton, CO 80229-4326
Telephone 303-538-7643
Fax 303-538-7556

Active day-to-day administration of the Project will be delegated to:

Dan Schiltz, Infrastructure Engineering Manager
City of Thornton
12450 Washington Street
Thornton, CO 80241
Telephone: 720-977-6226

2.02 Project Coordination. Coordination will be required with the following:

- Cities – City of Thornton and City of Commerce City.
- Counties – Adams County.
- Colorado Department of Transportation.
- Regional Transportation District.
- Denver Regional Council of Government (DRCOG).
- Division of Wildlife.
- Metro Wastewater Reclamation District.
- Xcel Energy.
- United Power.
- CenturyLink (Qwest).
- Any other Agency(ies) not listed herein, which are affected by this Project.

The Consultant should anticipate that a design which affects an agency will have to be accepted by that agency prior to its acceptance by Thornton. Submittals to affected agencies shall be coordinated with Thornton.

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SECTION 3

PROJECT DESCRIPTION

3.01 Background. See section 1.01

3.02 Project Limits. See section 1.03

3.03 Work Elements. See section 1.01-1.10

3.04 The following studies will be required for this Project:

- Archaeological and Historic investigation.
- Paleontology records review.
- Hazmat Initial Study Assessment.
- Storm Water Management Plan.
- Prairie Dog Mitigation Plan – if prairie dogs are impacted.
- Wetland Mitigation Plan that includes grading for wetland mitigation.
- Prime Farmland Study in accordance with Part 2, section B.5.p.
- Migratory Bird Assessment.
- Noxious Weed Survey including Mapping of List A Species.
- Environmental Categorical Exclusion - *For purposes of the Scope of Work include all fees associated with an Environmental Clearance for the Project via a Categorical Exclusion (CDOT Form 128).*
- Environmental Assessment – *Include fees in addition to the reports required above for the Categorical Exclusion, for an NEPA environmental assessment.*
- Wetland Finding (jurisdictional or non-jurisdictional).
- Colorado Department Public Safety (CDPS) Storm Water Permit.
- Public Lands Section 4(f) and 6(f) – to be determined during design.
- Other environmental services listed in Part 2.

Note: All Work necessary to complete this Scope of Work requires the use of Standard Units.

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SECTION 4

KNOWN EXISTING FEATURES

- 4.01 Utilities contact U.N.C.C. at 1-800-922-1987.
- 4.02 Xcel Energy overhead high voltage lines.
- 4.03 Xcel Energy gas transmission line.
- 4.04 CenturyLink (Qwest) utilities.
- 4.05 City of Thornton water and sewer, fiber optic.
- 4.06 Metro Wastewater Reclamation District Sanitary Sewer.
- 4.07 South Adams County Water and Sanitation District.
- 4.08 United Power.

Note: The above is a list of the known features in the area. It should not be considered as complete. The Consultant should be responsible for identifying and providing an alert for the existence of other possible conflicts.

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SECTION 5

ITEMS TO BE FURNISHED BY CITY OF THORNTON

5.01 As listed in Section 7 and Part 2.

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SECTION 6

GENERAL INFORMATION

6.01 Authorization to Proceed. Work will not commence until the written Notice to Proceed is issued by Thornton with certification from the Consultant that the Work will be completed within the allotted time. Work may be required night or day, on weekends, on holidays, or on split shifts. The time charged will be exclusive of time lost for:

- a. Reviews and Approvals.
- b. Delays in not receiving responses and direction.

Thornton must concur in time lost reports prior to the time lost delays being subtracted from time charges.

6.02 Project Coordination. The routine working Agreement will be between the Thornton Project Manager (Thornton/PM) and the Consultant Project Manager (C/PM) as defined in Attachment C. Each Project Manager will provide the other with:

- a. Written synopses or copy of their respective contacts (both by telephone and in person) with others.
- b. Copies of pertinent written communications.

6.03 Routine Reporting and Billing. The Consultant will provide the following on a routine basis:

- a. Coordination of all Agreement activities by the C/PM.
- b. The periodic reports and billings required by Thornton. CDOT Form 1313 (to track overall Project DBE billing percentage) will also be included.
- c. Minutes of all Meetings: The minutes will be completed and will be provided to the Thornton/PM within five (5) Working Days after the meeting. When a definable task is discussed during a meeting, the minutes will identify the "Action Item", the agency responsible for accomplishing it, and the proposed completion date.
- d. Monthly Project schedule update broken out by phase.
- e. Biweekly Work complete and Work to be completed with billings update.
- f. In general, all reports and submittals must be accepted by Thornton prior to their content being utilized in follow-up work effort.

6.04 Personnel Qualifications. The C/PM, must be approved by the Thornton Contract Administrator. Certain tasks must be done by Licensed Professional Engineers (PE) or Professional Land Surveyors (PLS) who are registered with the Colorado State Board of Registration for Professional Engineers and Land Surveyors. National Institute for Certification in Engineering Technology (NICET) may be required for Project inspectors and testers.

6.05 COT Software Information. The type of software is:

Specifications-Microsoft Word.

Computer Data Compatibility

The data format used by the Consultant to submit surveying shall be AutoCAD 2010 or later.

The Consultant shall immediately notify Thornton's PM if the firm is unable to produce the desired format for any reason and cease Work until the problem(s) is/are resolved.

6.06 Project Design Data and Standards.

- a. General. Attachment A is a list of technical references applicable to Thornton Work. The Consultant is responsible for ensuring compliance with the listed references. Conflicts in criteria shall be resolved by Thornton's PM.
- b. Specific Criteria. Attachment B is a list of specific Project criteria. The list is comprehensive and may include items that are not required for tasks defined in this scope. The Consultant shall submit the pertinent criteria to Thornton's PM at one (1) of the periodic progress meetings prior to initiating design.
- c. Construction Materials and Methods. The materials specified for construction and any indicated construction methods will be selected to minimize the initial construction and long-term maintenance cost to Thornton. Non-typical construction materials and methods must be approved in writing by Thornton.

SECTION 7

WORK ACTIVITY ASSIGNMENTS

This list establishes the Consultant's individual task responsibility. The Consultant shall maintain the ability to perform all Work tasks which are indicated below by an "X" mark in the Consultant column, in accordance with the forms and conditions of Part 2, Part 3, and the applicable CDOT standards. Selected Work tasks shall be assigned only after coordination and consultation with Thornton. The Consultant is also responsible for coordinating the required Work schedule for those tasks accomplished by Thornton and other agencies.

PRECONSTRUCTION - See Part 2 for Task Descriptions.

	<u>Thornton</u>	<u>Consultant</u>
A. Project Initiation and Continuing Requirements:		
1. Design Scoping Review Meeting	<u>X</u>	<u>X</u>
2. Review Environmental Mitigation Requirements	_____	<u>X</u>
3. Independent Design Review	_____	_____
4. Project Schedule	_____	<u>X</u>
5. Develop Design Criteria	<u>X</u>	<u>X</u>
6. Initiate Survey	<u>X</u>	<u>X</u>
7. Right-of-Entry and Permits	_____	<u>X</u>
8. Traffic Control	_____	<u>X</u>
9. Initial Submittals	_____	<u>X</u>
10. Progress Meetings	<u>X</u>	<u>X</u>
11. Project Management	<u>X</u>	<u>X</u>
B. Project Development:		
1. Communication and Consensus Building	<u>X</u>	<u>X</u>
2. Public Notices/Advertisement		
a. Public Meetings	<u>X</u>	<u>X</u>
b. Communication Aids	_____	<u>X</u>
3. Route Location Surveys (See Section C)		
4. Conceptual Design	_____	<u>X</u>
5. Data Gathering, Analysis, and Mitigation Development		
a. Traffic Related (See Section C)	_____	_____
b. Archaeology/Paleontology	_____	<u>X</u>
c. Noxious Weeds	_____	<u>X</u>
d. Initial Geology Investigation (See Section C)	_____	_____
e. Water Quality	_____	_____
f. Ecological Assessment	_____	_____
g. Historical	_____	<u>X</u>
h. Floodplain Assessment	_____	<u>X</u>

	<u>Thornton</u>	<u>Consultant</u>
i. Right-of-Way (See Section C)	_____	<u>X</u>
j. 4(f)/6(f) Activity	_____	<u>X</u>
k. Threatened and/or Endangered Species	_____	<u>X</u>
l. Wetlands		
(1) Wetlands Determination	_____	<u>X</u>
(2) Wetlands Findings Report	_____	<u>X</u>
m. Hazardous Materials	_____	<u>X</u>
n. Existing Roadway and Major Structures	_____	<u>X</u>
o. Noise	_____	<u>x</u>
p. Prime Farmlands	_____	<u>X</u>
q. Air Quality	_____	_____
6. Obtain Permits		
a. 404 Nationwide Permit	_____	<u>X</u>
b. SB40 Certification	_____	_____
c. Stormwater Construction Permit	_____	<u>X</u>
d. 401 Permit Process	_____	_____
e. 402 Permit Process	_____	_____
f. Ditch Crossing Agreements	_____	<u>X</u>

C. Preliminary Design:

1. Design Field Surveys	_____	<u>X</u>
a. Pre-survey Conference	<u>X</u>	<u>X</u>
b. Survey Data Research	_____	<u>X</u>
c. Secure Rights of Entry	_____	<u>X</u>
d. Project Control Survey		
(1) Locate or Establish HARN Stations	_____	<u>X</u>
(2) Monumentation	_____	<u>X</u>
(3) Local Project Control	_____	<u>X</u>
e. Land Survey/Boundary Survey	_____	<u>X</u>
f. Utility Survey	_____	<u>X</u>
g. Hydraulic Survey	_____	<u>X</u>
h. Supplemental Surveying	_____	<u>X</u>
i. Survey Report	_____	<u>X</u>
j. Equipment Calibration	_____	<u>X</u>
k. Review by Registered PLS	_____	<u>X</u>
2. Traffic Engineering	_____	<u>X</u>
3. Materials Engineering	_____	<u>X</u>
a. Preliminary Soil Investigation	_____	<u>X</u>
b. Pavement Rehabilitation	_____	<u>X</u>
c. New Pavement Structure	_____	<u>X</u>
d. Pavement Justification	_____	<u>X</u>
e. Box Culvert Recommendations	_____	<u>X</u>
f. Pavement Design Report	_____	<u>X</u>
4. Hydrology/Hydraulics Engineering		

a. Hydrology	_____	<u> X </u>
b. Hydraulics	_____	<u> X </u>
c. Preliminary Hydraulics Report	_____	<u> X </u>
5. Utility Coordination	_____	<u> X </u>
6. Roadway Design and Roadside Development		
a. Roadway Design	_____	<u> X </u>
b. Roadside Development	_____	<u> X </u>
c. Lighting Plan	_____	<u> X </u>
7. Right-of-Way		
a. ROW Research including Title work (Forty-six [46] Parcels), and chain of Title to 1960 for each parcel	_____	<u> X </u>
b. Ownership Map	_____	<u> X </u>
8. Construction Phasing Plan	_____	<u> X </u>
9. Preparation for the FIR	_____	<u> X </u>
10. Field Inspection Review	<u> X </u>	<u> X </u>
11. Post FIR Revisions	_____	_____

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SECTION 8

SUBMITTALS

	<u>Thornton</u>	<u>Consultant</u>
A. Project Initiation and Continuing Requirements:		
Part 1:		
6.02 Meeting Minutes	_____	_____ <u>X</u>
6.03 Periodic Reports and Billings	_____	_____ <u>X</u>
Part 2:		
A.4 Project Schedule	_____	_____ <u>X</u>
A.5 Design Criteria (Attachment B)	_____	_____ <u>X</u>
A.6 Survey Plan	_____	_____ <u>X</u>
A.7 Permissions to Enter (Form 730)	_____	_____ <u>X</u>
A.8 Traffic Control Plan	_____	_____ <u>X</u>
A.9 Initial Submittal of an Original Plan Sheet	_____	_____ <u>X</u>
B. Project Development:		
B.1.a. Public Communication Contact List	_____ <u>X</u>	_____
B.4.a. Roadway Conceptual Design Memo	_____	_____ <u>X</u>
B.5.b. Archaeology / Paleontology Survey Report	_____	_____ <u>X</u>
B.5.c. Noxious Weed Plan	_____	_____ <u>X</u>
B.5.g. Historical Resources Memo	_____	_____ <u>X</u>
B.5.h. (5) Floodplain and Drainage Assessment Report	_____	_____ <u>X</u>
B.5.h. (6) CLOMR	_____	_____ <u>X</u>
B.5.j. 4(f)/6(f)	_____	_____ <u>X</u>

	<u>Thornton</u>	<u>Consultant</u>
B.5.k. Threatened and/or Endangered Species Assessment	_____	<u> X </u>
B.5.l. Wetlands Findings Report	_____	<u> X </u>
B.5.m. Phase I Environmental Site Assessment (M-ESA)	_____	<u> X </u>
B.5.o. Noise Study	_____	<u> X </u>
B.5.p. Prime Farmlands Report	_____	<u> X </u>
Permits:		
B.6.a. 404 Nationwide Permit	_____	<u> X </u>
B.6.b. SB40 Permit	_____	_____
B.6.c. CDPS Storm Water Permit	_____	<u> X </u>
B. Floodplain Permit (Adams County & City of Thornton)	_____	<u> X </u>
B.6.f Ditch Crossing License Agreement	_____	_____
C. Preliminary Design:		
C.1. Electronic Survey	_____	<u> X </u>
• Monument Records	_____	<u> X </u>
• Control and Monumentation	_____	<u> X </u>
• Plan Sheets	_____	<u> X </u>
C.2.j. Traffic Data and Recommendations	_____	<u> X </u>
C.3. Geotechnical Report (Including Soils Investigation, Pavement Design and Lower Clear Creek Box Extension)	_____	<u> X </u>
C.4.c. Preliminary Hydraulics Report	_____	<u> X </u>
C.5.c. Preliminary Utility Conflict List	_____	<u> X </u>

	<u>Thornton</u>	<u>Consultant</u>
C.7.a. Title Commitments	_____	_____ <u>X</u>
C.7.b. Preliminary Ownership Map	_____	_____ <u>X</u>
C.9.c Preliminary Cost Estimate	_____	_____ <u>X</u>
C.9.d. FIR Plan Set	_____	_____ <u>X</u>
C.10.e. List of Deviations from Standard Design Criteria	_____	_____ <u>X</u>
C.11. Corrected FIR Plan Set	_____	_____ <u>X</u>
D. Final Design:		
D.5.a. ROW Authorization Plans	_____	_____ <u>X</u>
Right-of-Way:		
D.6. ROW Plans	_____	_____ <u>X</u>
D.6.b Legal Descriptions (Forty-six [46] Fee Acquisitions and Forty-six [46] Temporary Easements)	_____	_____ <u>X</u>

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SECTION 9

AGREEMENT CONCLUSION

9.01 Supplemental Work. It is anticipated that this Agreement will be supplemented for:

9.02 Agreement Completion. This Agreement will be satisfied upon completion of review of Agreement submittals and acceptance of the following items if applicable:

- Project Schedule;
- Project Progress Meeting Minutes;
- Conceptual Traffic Control Plan(s);
- All Documents Found In Research;
- All Permission to Enter Forms;
- Monumented and Surveyed Ground Control Diagram(s);
- Ownership Map;
- Original Field Notes;
- Survey Report (Including monument recovery forms);
- Legal Descriptions (Signed and Sealed) Forty-six (46) Fee Acquisitions and Forty-six (46) Temporary Easements; and
- Traffic signal plans.

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PART 1
ATTACHMENTS

ATTACHMENT "A" REFERENCES

ATTACHMENT "B" SPECIFIC DESIGN CRITERIA

ATTACHMENT "C" DEFINITIONS

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ATTACHMENT A

REFERENCES

A. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) PUBLICATIONS (using latest approved versions):

1. A Policy on Design Standards-Interstate System;
2. A Policy on Geometric Design of Highways and Streets;
3. Guide for Design of Pavement Structures;
4. Guide for the Design of High Occupancy Vehicle and Public Transfer Facilities;
5. Standard Specifications for Transportation Materials and Methods of Sampling and Testing - Part I, Specifications and Part II, Tests;
6. Highway Design and Operational Practices Related to Highway Safety; and
7. Roadside Design Guide.

B. COLORADO DEPARTMENT OF TRANSPORTATION PUBLICATIONS (using latest approved versions):

1. Action Plan;
2. CDOT Design Guide (all volumes);
3. Project Development Manual;
4. Wetlands and Water Quality;
5. Field Log of Structures;
6. Cost Data Book;
7. Drainage Design Manual;
8. CDOT Quality Manual (when updated);
9. Survey Manual;
10. Field Materials Manual;
11. CDOT Design Guide, Computer Aided Drafting (CAD);
12. Erosion Control and Stormwater Quality Guide;
13. Standard Plans, M & S Standards (also available on the Internet);
14. Standard Specifications for Road and Bridge Construction and CDOT Supplemental Specifications;
15. Item Description and Abbreviations (with code numbers) compiled by Cost Estimate Unit, CDOT (also available on the Internet);
16. Right-of-Way Manual, Chapter 2, Plans and Descriptions Procedures and General Information;
17. The State Highway Access Code;
18. Utility Manual; and
19. Interactive Graphics System Symbol Table.

C. CDOT PROCEDURAL DIRECTIVES (using latest approved versions):

- No. 400.2 Monitoring Consultant Agreements;
No. 501.2 Cooperative Storm Drainage System;

- No. 514.1 Field Inspection Review (FIR);
- No. 516.1 Final Office Review (FOR);
- No. 1304.1 Right-of-Way Plan Revisions;
- No. 1305.1 Land Surveys;
- No. 1700.3 Plans, Specifications, and Estimates (PS&E) and Authorization to Advertise for Bids under Certification Acceptance (CA);
- No. 1700.7 Plans and Specifications for Structure Plans under CA; and
- No. 1700.8 Plans and Specifications for Traffic Engineering Plans under Certifications Acceptance.

D. FEDERAL PUBLICATIONS (using latest approved versions):

1. Manual on Uniform Traffic Control Devices;
2. Highway Capacity Manual;
3. Urban Transportation Operations Training - Design of Urban Streets, Student Workbook;
4. FHWA Federal-Aid Policy Guide;
5. Technical Advisory T6640.8A;
6. U.S. Department of Transportation Order 5610.1E; and
7. Geometric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques.

ATTACHMENT B

SPECIFIC DESIGN CRITERIA

Note: The following criteria will be developed by the Consultant and coordinated with the COT/PM prior to starting the design.

I. ROADWAY

1. BASIC DESIGN

The basis for design will be the data in CDOT Form 463, Design Data. A copy of the latest applicable Design Data form will be furnished to the Consultant.

2. GEOMETRIC AND STRUCTURE STANDARDS:

a. Horizontal Curvature:

- (1) Applicable Superelevation Standards - 2018 CDOT Design Guide;
- (2) Minimum radius of Curvature - 820 feet; and
- (3) Use of Spirals - CDOT Design Guide.

b. Vertical Alignment:

- (1) Maximum gradient - 2018 CDOT Design Guide; and
- (2) Length - CDOT Design Guide.

c. Sight Distance:

- (1) Stopping - 2018 CDOT Design Guide;
- (2) Passing - 2018 CDOT Design Guide; and
- (3) Decision - 2018 CDOT Design Guide.

d. Superelevation

- (1) Applicable Standard - 2018 CDOT Design Guide.

e. Access:

- (1) 2018 CDOT Design Guide; City of Thornton Standards; Adams County Standards.

f. Airway - Highway Clearances - 2018 CDOT Design Guide.

g. Bridges and Grade Separation Structures.

- (1) Clearances to Structures and Obstructions - 2018 CDOT Design.

h. Curbs and Gutters - Type-two.

3. GEOMETRIC CROSS SECTION-

- a. Travel Lane:
 - (1) Width- Twelve Feet (12') desirable; Eleven Feet (11') through lanes, Ten Feet (10') left turn lanes, allowable if ROW constraints require; and
 - (2) Crown Slope - Two percent (2%).
- b. Shoulder:
 - (1) Width - N/A;
 - (2) Slope - N/A; and
 - (3) Paved/Non-paved - N/A.
- c. Side Ditches:
 - (1) 2018 CDOT Design Guide; and
 - (2) 2019 CDOT Drainage Design Manual.
- d. Side Slopes:
 - (1) Cut-Less than 4:1; and
 - (2) CDOT Design Guide.
- e. Median:
 - (1) Width - N/A; and
 - (2) Treatment - N/A.

4. INTERSECTIONS AT GRADE:

- a. Type - Four-way Intersection.
- b. Special Considerations.

5. DESIGN AND PAVEMENT STRUCTURE:

- a. Pavement Type – Asphalt.
- b. Economic Analysis Period – Twenty (20) Years.
- c. Design Life – Twenty (20) Years.

6. MISCELLANEOUS DESIGN CONSIDERATIONS:

- a. FEMA Category - Floodplain Zone A and Zone X.
- b. 2018 CDOT Design Guide.
- c. 2019 CDOT Drainage Design Guide.

7. ROADSIDE DEVELOPMENT:

- a. Landscaping: Specifications for Revegetation of Disturbed Areas to be approved by CDOT.

8. Traffic Signal:

- a. City of Thornton, Adams County and Commerce City Standards.

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ATTACHMENT “C”

DEFINITIONS

AASHTO-	American Association of State Highway & Transportation Officials
ADT-	Average two-way 24-hour Traffic in Number of Vehicles
AREA-	American Railway Engineering Association
ATSSA-	American Traffic Safety Services Association
AT&SF-	Atchison, Topeka & Santa Fe Railway Company
BAMS-	Bid Analysis and Management Systems
BLM-	Bureau of Land Management
BNRR-	Burlington Northern Railroad
CA-	Contract Administrator. The COT employee responsible for the satisfactory completion of the Agreement by the Consultant.
CAP-	CDOT’s Action Plan
CBC-	Concrete Box Culvert
CDOT-	Colorado Department of Transportation
CDOT/PE-	Colorado Department of Transportation Project Manager - The CDOT Engineer responsible for the day to day direction and CDOT - Consultant coordination of the design effort.
CDOT/STR-	Colorado Department of Transportation Structure Reviewer - The CDOT Engineer responsible for reviewing and coordinating major structural design.
CDPHE -	Colorado Department Public Health and Environmental
CDPS-	Colorado Discharge Permit System
CEA-	Council on Environmental Quality
COG-	Council of Governments
COGO-	Coordinate Geometry Output

CONSULTANT- Consultant for this Project

CONTRACT

ADMINISTRATOR-The COT employee directly responsible for the satisfactory completion of the Agreement by the Consultant.

C/PM- Consultant Project Manager - The Consultant Engineer responsible for combining the various inputs in the process of completing the Project plans and managing the Consultant design effort.

COT/PM- City of Thornton Project Manager

DEIS- Draft Environmental Impact Statement

DHV- Future Design Hourly Volume (two-way unless specified otherwise)

DOR- Region Office Review

DRCOG- Denver Regional Council of Governments

D&RGW- Denver & Rio Grande Western Railroad

EA- Environmental Assessment

EIS- Environmental Impact Statement

ESAL- Equivalent Single Axle Load

ESE- Economic, Social, and Environmental

FEIS- Final Environmental Impact Statement

FEMA- Federal Emergency Management Agency

FHPM- Federal-Aid Highway Policy Guide

FHWA- Federal Highway Administration

FIR- Field Inspection Review

FONSI- Finding of No Significant Impact

FOR- Final Office Review

GPS- Global Positioning System

MAJOR STRUCTURES-	Bridges and culverts with a total length greater than one hundred feet (100') and maximum exposed height at any section of over five feet. This length is measured along the centerline of roadway for bridges and culverts, and is the horizontal distance along the top of wall for retaining walls. Overhead structures (sign bridges, cantilevers, and butterflies extending over traffic) are also major structures.
MOSS-	Modeling of Surfaces and Strings computer program
MPO-	Metropolitan Planning Organization, Denver Regional Council of Governments, Pikes Peak Area Council of Governments, Grand Junction MPO, Pueblo MPO, North Front Range Council of Governments.
NEPA-	National Environment Policy Act
NGS-	National Geodetic Survey
NICET-	National Institute for Certification in Engineering Technologies
NOAA-	National Oceanic and Atmospheric Administration
PAPER SIZES-	See Computer-Aided Drafting manual (CDOT); Table 6-13 and Table 8-1.
PE-	Professional Engineer registered in Colorado
PM-	Program Manager
PLS-	Professional Land Surveyor registered in Colorado
PRT-	Project Review Team
PS & E-	Plans, Specifications and Estimate
PROJECT-	The Work defined by this scope
ROW-	Right-of-Way: A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to a highway.
ROWPR-	Right-of-Way Plan Review
RTD-	Regional Transportation Director
T/E	Threatened and/or Endangered Species

SH- State Highway Numbers

TMOSS- Terrain Modeling Survey System

TOPOGRAPHY- In the context of CDOT plans, topography normally refers to existing cultural or man-made details.

UDFCD- Urban Drainage and Flood Control District

Note: For other definitions and terms, refer to Section 101 of the CDOT Department of Transportation Standard Specifications for Road and Bridge Construction and the CDOT Design Guide 2018.

PART 2
PRECONSTRUCTION TASK DESCRIPTIONS

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SECTION 1

PRECONSTRUCTION WORK TASK DESCRIPTIONS

The following includes Work descriptions for all tasks normally accomplished during this phase of the Work.

The tasks that are the responsibility of the Consultant are identified in Part 1 of "Consultant's Scope of Work" and described in detail in Part 2 below. Also noted below is the Consultant's or Subconsultant's firm that will perform each task.

A. Project Initiation and Continuing Requirements. (Consultant, except as noted)

1. Design Scoping Review (DSR) Meeting, Consultant and Thornton representatives shall attend the DSR meeting at CDOT. Meeting agenda will be prepared by Thornton with input from Consultant. At a minimum the agenda will include: identify scope elements, responsibilities and coordination necessary to complete the Work, and review applicable environmental documents and requirements.

For DSR meeting Project orientation, Consultant will prepare a PowerPoint slide with the proposed Project layout, and some Project overview photos showing typical conditions / important features along the corridor.

2. Review environmental mitigation requirements and ensure that they are included in the plan for design.
3. An independent design review shall be performed on any design accomplished by others that will be used in this Project. (Not anticipated)
4. Develop a Project Schedule and assign tasks.
5. Identify design criteria. Submit a copy of Attachment "B" (or other relevant format) with the appropriate items completed. Review and comment on draft Form 463 prepared by CDOT.
6. Initiate survey. Arrange Preliminary Field Survey and/or Aerial Survey. CDOT Form 1217a is an outline of a complete survey request and may be used as a guide for completing the survey plan. The Survey Manual provides an agenda for the Pre-Survey Conference. See Section C.1, "Preliminary Design, Design Field Survey" for all surveying tasks.
7. Obtain necessary Right-of-Entry and permits.
 - a. Some activities which may require work on land are not controlled by Thornton. In such cases the Consultant shall obtain the necessary written permission to enter the premises. Included in this written

permission will be the names and telephone numbers of persons to contact should notification prior to entry be necessary. These written permissions apply to Thornton's personnel as well as Consultant's personnel. CDOT Form 730 may be used for this purpose. Signed copies of the written permission will be submitted to Thornton's PM prior to entering private property for survey Work.

- b. Some activities such as materials testing on existing pavement and structures may require a permit. Permits will be obtained and copies submitted to Thornton's PM.

(Right of Entry and Permits will be obtained by Consultant as required for their respective scopes of work. Fees are included in those sections of the scope).

8. Traffic Control. Consultant field activities that interfere with traffic operation within existing roadways will require control of existing traffic. The Consultant will plan and provide any required traffic control for the survey, testing, or design process. Traffic control operations will be in accordance with the MUTCD. The Consultant will note that the proposed method for handling traffic must be acknowledged in writing by Thornton's PM. Also, certification of the Traffic Control Supervisor as a Worksite Traffic Supervisor by the American Traffic Safety Services Association (ATSSA) shall be required.
9. Initial Submittals. Submit the following samples to Thornton's PM for approval:
 - An original plan sheet that complies with Part 2, Section 2 of this Scope of Work.
 - Survey data and a drawing in accordance with the requirements specified in Part 2, Section 2 of this Scope of Work.
10. Progress Meetings
 - a. Thornton and C/PM will meet periodically. Meetings shall occur not less than monthly. The anticipated meetings include:
 - Three (3) meetings during the Project Initiation / Conceptual Design phase;
 - Four (4) meetings during the Preliminary Design phase;
 - Four (4) meetings during the Final Design phase; and
 - One (1) additional meeting.

These Progress Meetings will be used to coordinate and track the Work effort and resolve problems. The meetings will review the following:

- (1) Activities required to be completed since the last meeting.

- (2) Problems encountered and effectiveness of previous problem resolutions.
- (3) Late activities.
- (4) Activities required to be completed by the next progress meeting.
- (5) Solutions proposed for unresolved and anticipated problems.
- (6) Information or items required from other agencies.

b. Other required meetings are described in subsequent sections.

11. Project Management. The Consultant will coordinate all the Work tasks being accomplished by all Parties to ensure Project Work completion stages are on schedule. This task also includes the routine working coordination between Thornton's PM and the Consultant's C/PM and the routine periodic reports and billing as defined in Part 1.

B. Project Development

1. Communication and Consensus Building: (Thornton)

Establish and maintain a computerized list of all appropriate receptors for the communication process. The contacts will be compiled from the general "contact list" below as supplemented by the Project Review Team and the attendees at public meetings.

The list will be used for notices regarding public meetings, mailing newsletters, or other communications as appropriate.

The information on the list shall include at a minimum:

- Name
- Firm (if any)
- Mailing/E-Mail address
- Phone/Fax number

a. Contact List:

- Public Agencies
- Elected/Appointed Officials
- Neighborhood Groups
- Property Owners/Tenants
- Business Interests
- Special Interests
- Media Contacts

Consultant will provide to Thornton's PM contact information for stakeholders such as utility company representatives, agency representatives, adjacent

property owners, etc., obtained during the course of Work outlined in other portions of this Scope of Work.

2. Public Notices/Advertisement: (Consultant, except as noted)

a. Public Meetings:

- Location for public informational meeting(s) will be arranged by Thornton's PM, and any fees for meeting facilities will be paid directly by the city.
- Advertisements for the Public Meeting(s) will be arranged and prepared by city staff.
- Attend one (1) public informational meeting. Each meeting is anticipated to be two (2) hours in length. Meetings are anticipated to consist of a short Project overview PowerPoint presentation by the Consultant PM and Thornton's PM, followed by an Open House. Two (2) members of Consultant's staff will attend each meeting. Hours estimated include meeting/presentation preparation time, travel time, and setup / teardown time. All Agencies PMs and Thornton's Traffic Engineer will also attend each meeting. Greeter for each meeting will be provided by Thornton.
- After the public meeting, Consultant will prepare minutes summarizing items such as the notification process, attendance, intent of the meeting, and public comments received. If at all possible, minutes shall be provided to Thornton's PM by 12:00 p.m., the day following the meeting.
- 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 the City of Thornton for posting on the city's website.
- This Scope of Work does not include meeting with individual property/business owners, homeowner's associations, or other interested citizens except at the referenced public meeting(s). If such meetings become necessary, they can be substituted for some of the regular progress meetings or provided as an Additional Service.

b. Communication Aids:

- (1) Graphics Support. Provide the graphics for public presentation(s). These are anticipated to include only the following:

- PowerPoint slide and board of Project typical roadway section.
- PowerPoint slide of the Project design superimposed on aerial photography.
- Wall display of the Project design superimposed on aerial photography.
- Comment sheet for citizen input.

Other graphics needed for reports and environmental documents will be prepared under those sections of the Scope of Work. Renderings or drawings by a landscape architect are not included in this Scope of Work.

- (2) Newsletter. Newsletters to inform Project stakeholders and/or the general public about public meetings or other Project progress information and announcements will be prepared and distributed by Thornton's staff.
3. Route Location Surveys. See Section C, "Preliminary Design".
 4. Conceptual Design

Specific items to be studied during Conceptual Design include:

a. Roadway:

- (1) Horizontal alignment options, with the following goals:
 - Avoid or minimize 4(f) property impacts.
 - Minimize right-of-way takes from Xcel Energy. Minimize other ROW takes.
- (2) Vertical alignment options, with the following goals:
 - Maximize use of existing pavement.
 - Evaluating maximum length of transitions through the intersection.
- (3) Edge treatment analysis: Assess the east side of the intersection to determine best option for relocating storm sewer and placing fill to support new through lanes.

Conceptual geometric design effort will be performed only to the level needed to settle on the best general alignment concept and answer the other issues above. Detailed horizontal and vertical geometric design of the chosen concept will be performed in task C.6. Preliminary Roadway Design.

Provide recommendations to Thornton's PM for concurrence via a technical memorandum.

5. Gathering Data, Analysis, and Mitigation Development.

For purposes of the Scope of Work listed below for this Base Agreement, it is assumed that Environmental Clearance for the Project will be obtained via a Categorical Exclusion (CDOT Form 128). Should CDOT or another jurisdiction require that an Environmental Assessment be performed, the Agreement will be supplemented for the additional Work required to perform the Environmental Assessment. That Work is described in a separate document.

These activities shall include the following:

a. Traffic Related. See Section C2 “Preliminary Design, Traffic Engineering”.

b. Archaeology / Paleontology: (Consultant)

Consultant will perform record searches and field surveys for archaeological and paleontological remains in the study area. This scope assumes that no resources will be located in the study area and that no update will be needed prior to Project construction.

c. Noxious Weeds: (Consultant)

A qualified ecologist will assess the Project site for the presence of noxious weeds on the Colorado Noxious Weed A and B lists, the Adams County list, and the CDOT Maintenance list. Weed populations present will be mapped according to CDOT guidelines and shown on the plans.

If noxious weeds are present, Consultant will prepare a brief weed management plan according to CDOT guidelines. Consultant will work with Thornton to ensure that weed locations and weed management measures are included in the Project plans as appropriate. This task includes a review of weed mapping and an update of the weed management plan (if needed) no earlier than six (6) months prior to advertising the Project.

d. Initial Geology Investigation. See Section C3, “Preliminary Design, Materials Engineering” for all Geology/Geotechnical Work.

e. Water Quality. Addressed in “Preliminary Design” and “Final Design”.

f. Ecological Assessment: A separate ecological assessment task is not anticipated for this Project. All anticipated ecological Work is described above and below in the relevant individual environmental resource task descriptions.

g. Historical: (Consultant)

Consultant will perform record searches and field surveys for historic structures including bridges, buildings, irrigation ditches, railroads, mines, trails and wagon roads, roadway features, and landscapes to determine if significant resources are present. If historic resources are present in the study area, Consultant will prepare an Additional Services scope for fully documenting and mitigating the resources. This task assumes that no update will be needed prior to Project construction.

h. Floodplain Assessment: (Consultant)

- (1) Determine the probable impacts of the proposed Project with respect to the floodplain.
- (2) Identify adverse impacts caused by the Project with respect to floodplain.
- (3) Develop possible mitigating actions for the adverse impacts.
- (4) Analyze the impacts and mitigations (if any).
- (5) Complete a written "Floodplain Assessment Report" which includes a detailed discussion of the pertinent aspects of the analysis, identification of the significant floodplain/drainage impacts, and the possible practical mitigating actions for the alternatives.
- (6) Provide Conditional Letter of Map Revision - FEMA (CLOMR). The filing fee (currently four thousand four hundred dollars [\$4400]) will be paid directly to FEMA by Thornton and is not included in this Scope of Work. A Letter of Map Revision (LOMR) will be required upon completion of construction and is not included in this Scope of Work.

i. Right-of-Way (ROW). See Sections C.7 and D.6.

j. 4(f)/6(f) Activity: (Consultant)

Consultant will coordinate with Thornton and CDOT to determine the 4(f) or 6(f) status of the open space or park properties within the ROW. If the properties meet 4(f) or 6(f) criteria, documentation of measures taken to avoid, minimize, and mitigate impacts will be provided to CDOT for its use in obtaining a *de minimus* determination from Federal Highway Administration. Consultant assumes that through the use of avoidance, minimization, and mitigation and enhancement, the Project will result in no or *de minimus* adverse effects on the activities, features, or attributes that qualify the properties as 4(f) properties. A detailed analysis of avoidance alternatives is not required if a *de minimus* determination is made by FHWA. This task assumes that no Section 4(f) or 6(f) update would be needed prior to Project construction.

k. Threatened and/or Endangered Species: (Consultant)

Consultant will prepare a brief report on the potential of threatened, endangered, or sensitive (TES) species being present in the study area. The report will also include recommendations on measures to comply with the Endangered Species Act, Migratory Bird Treaty Act, and CDOT's black-tailed prairie dog guidelines. Black-tailed prairie dogs are known to be present in the vicinity of the Project area and this scope assumes the Project will be required to implement CDOT's prairie dog guidelines. The Project area is located within the block clearance area for Preble's meadow jumping mouse.

If necessary, Thornton will perform presence/absence surveys for Ute ladies'-tresses orchid and Colorado butterfly plant. Because surveys for burrowing owls and other migratory birds are valid for just one (1) year, surveys will be done no more than six (6) months prior to the start of the Project.

This task includes an update of TES species clearances (as needed) no earlier than six (6) months prior to Project advertisement. Surveys for burrowing owl and other migratory birds would be done at this time.

This task assumes that no federally-listed species are present.

l. Wetland Determination and Wetland Finding: (Consultant)

Consultant will delineate all wetlands and open water in the study area (see Exhibit D, Project Concept) using US Army Corps of Engineers delineation methods. Consultant will include the delineation in the Wetland Finding prepared and submitted according to CDOT guidelines. The Wetland Finding will document existing conditions, describe any proposed, unavoidable impacts to wetlands, and describe mitigation proposed for wetland impacts.

This task includes a review of wetland mapping and an update of the finding (if needed) no earlier than six (6) months prior to advertising the Project. If wetland boundaries and Project plans have not changed between the original wetland finding and Project advertisement, no updates will be required.

m. Hazardous Materials: (Consultant)

Consultant will conduct a Phase I Environmental Site Assessment (ESA) for the subject property. The ESA will be modified to comply with CDOT's June 10, 2003, Modified Environmental Assessment (M-ESA) Guidance and CDOT's requirements for signal interconnect projects. The M-ESA will consist of a visual inspection of the subject property, interviews with the property owner, and/or key site manager, if applicable, and a compilation of publicly available information from a variety of sources

about current environmental conditions at the subject property. Consultant will provide the Client with a written report, including a detailed presentation of findings.

Site Inspection. Consultant will conduct a visual site inspection of the subject property. The purpose of the inspection is to document recognized environmental conditions. Photographs will be taken as appropriate. Consultant will not take any samples during the site inspection. The following issues are specifically excluded from this ESA: asbestos-containing materials, radon, lead-based paint, and lead in drinking water.

Consultant will document the general site setting, such as current use(s) of the subject property and adjoining properties, and general hydrogeologic and topographic features. A general description of structures and other improvements on the subject property will be provided.

Consultant will 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;
- Presence of electrical equipment potentially containing PCBs; and
- A cursory investigation for potential asbestos containing building materials and painted surfaces containing lead-based paints.

Interviews. Consultant will conduct interviews with the ESA user, property owner, site manager and/or other persons with knowledge of the subject property.

File search and regulatory agency review. Consultant will conduct a search of records and files from a variety of sources, and compile existing

information pertaining to current and past environmental conditions. This search may include the following information, as Consultant deems appropriate:

- County and city records;
- State and federal databases.

Reports and recommendations. Based on the information gathered during the above tasks, Consultant will compile the information and findings in a written report for the subject property. The report will contain a detailed presentation of findings, including the site description, records review, site reconnaissance, and conclusions.

M-ESA Assumptions and Conditions. It is important to emphasize that considerable uncertainty is inherent in conducting this type of investigation. The ESA will be completed by qualified environmental professionals using that degree of care and skill ordinarily exercised under similar circumstances by other environmental professionals practicing in this field. Unforeseen conditions may significantly affect the ability to make conclusions and recommendations based solely on the proposed investigations, which may ultimately affect the level of risk for a given level of investigative effort and cost. The following assumptions and conditions describe some of the possible limitations under this Scope of Work.

1. Consultant assumes the subject property will not present conditions that may be hazardous to the health and safety of Consultant's personnel. The presence of visible hazards or contamination may be sufficient cause for Consultant to halt work immediately and request a meeting with Thornton to discuss the problem.
2. All Work will be conducted according to the provisions given in this Scope of Work and in the accompanying Terms and Conditions. No other specifications or guidelines have been agreed to, nor will any such specifications or guidelines be addressed except as will otherwise be according to this Scope of Work.
3. As necessary, Consultant will obtain right of entry to properties.
4. Any conditions, known or suspected to Thornton that may have bearing on these investigations, or to the findings or recommendations made pursuant to this Work scope, will be disclosed to Consultant before initiation of the Scope of Work. Thornton will make available to Consultant any appraisal reports, title histories, engineering reports, or other technical reports or information that may pertain to this investigation.
5. All references, statements, or recommendations in the Scope of Work or in any subsequent written reports to substances being either hazardous or not hazardous are made solely in accordance

with or in reference to such official designations made by government agencies or other authorities under applicable laws, regulations, or guidelines. Consultant itself makes no claim, warranty, or implication as to whether any substance may or may not be hazardous.

6. This Scope of Work does not include an assessment of the potential for any particular condition adversely to affect public health.
7. Any laboratory analytical Work, beyond testing associated with the asbestos screening, conducted in conjunction with this Project will be conducted by a laboratory or laboratories under separate contract or subcontract. While the Consultant will endeavor to select qualified laboratories for sample analysis, The Consultant will accept no responsibility or liability for laboratory results, quality control, or analytical turnaround time.
8. Deviations from these assumptions may result in cost increases or changes in schedule.
9. All site boundaries shown or discussed in the report are approximations based on information supplied by the Client. Consultant will accept no responsibility or liability for the accuracy of the site boundaries.

Thornton will be responsible for completing the user questionnaire, obtaining a map of the subject property, determining property size, and forwarding these items to the Consultant at least five (5) days before the date of Project completion.

Assumptions: Phase II hazardous materials work is not included in this Scope of Work.

- n. Existing roadway and major structures: (Consultant)

Compile a photo log of existing conditions throughout the Project area.

Evaluate existing conditions to assess the merits relative to the following:

- (1) Accident history (in Section C);
- (2) Roadway and structure condition;
- (3) Geometry;
- (4) Lighting; and
- (5) Traffic signal devices.

6. Obtain Permits: This activity is concurrent with final design and must be completed prior to the advertisement for construction.

- a. 404 Nationwide Permit: (Consultant)

Consultant will prepare a pre-construction notification as part of the request for authorization under one (1) or more Nationwide Permits. Consultant assumes the Project will be authorized under Nationwide Permit 14 Transportation Crossings. If the Project requires an Individual Permit, Consultant will provide a revised scope. The request for authorization will include a summary of the wetland delineation, threatened and endangered species information, and information on grading and structures (provided by Consultant). Consultant will coordinate with others on what other information the Consultant requires for the request. Typical information includes plan views, cross sections, background information on other approval requirements (e.g., those of FEMA), and a discussion of the purpose of, and need for, the Project. It is assumed that any wetland mitigation required will be accomplished by Thornton purchasing credits in a wetland bank. Thus, wetland mitigation plans will not be prepared.

This task includes reviewing the Nationwide Permit authorization no earlier than six (6) months prior to Project advertisement. If necessary, Consultant will request that the Corps extend its authorization to accommodate the actual start date of the Project.

b. SB40 Certification:

An SB40 Certification is not anticipated for this Project, since the Project is not anticipated to impact a stream under SB40 jurisdiction. If it turns out to be needed, SB40 work can be provided as an additional service.

c. CDPS Stormwater Construction Permit: (Consultant)

- (1) Prepare CDPS permit application and provide to Thornton's PM for signature and submittal to CDPHE.
- (2) When permit is received by Thornton's PM, Thornton's PM will submit a copy of the permit to the CDOT Environmental Manager and Consultant.

d. 401 Permit Process:

A 401 permit is not anticipated for this Project, since a Nationwide 404 permit rather than an individual 404 permit is anticipated.

e. 402 Permit Process (Dewatering Point Source Discharge):

Typically this application is prepared by the Consultant since specific information regarding means and methods is requested. If dewatering is anticipated to be needed for this Project, the Contract Documents will require the Consultant to obtain this permit.

C. Preliminary Design

1. Design Field Survey (Consultant): This Work shall be done in accordance with the CDOT Survey Manual and applicable state statutes.

The limits of survey are illustrated in Exhibit D, "Project Concept". Topographic survey will be performed using a combination of aerial survey supplemented with ground survey. Aerial survey limits will encompass all areas shown on that Exhibit. Aerial mapping contour interval will be 1'. Within the "Limits of Detailed Roadway, Tree, and Utility Design Survey", the following three-dimensional survey data will be collected via ground survey methods using TMOSS:

- i. Edges of pavement.
- ii. All roadway striping.
- iii. Break lines within the roadway pavement (crown lines, curbs, gutters, raised medians, etc.)
- iv. Utility information listed in "Utility Survey" below.
- v. Hydraulic information listed in "Hydraulic Survey" below.
- vi. Trees, including location, type (coniferous vs. deciduous), and trunk diameter.

Consultant will merge the roadway break line/striping/pavement edge data from the TMOSS ground survey into the aerial survey model to improve accuracy for matching existing pavement elevations during design.

Consultant will provide the following deliverables for the topographic survey (AutoCAD Land Development Desktop-format deliverables will not be allowed):

- i. Drawing file (in both paper and AutoCAD electronic format) of merged aerial / ground survey suitable for use as background for Project design drawings, but also including full three-dimensional triangulated irregular network (TIN) of the merged model.
- ii. Electronic AutoCAD drawing file of unmerged TMOSS data.
- iii. Electronic AutoCAD drawing file of unmerged aerial survey.
- iv. TMOSS .SDF file.
- v. ASCII text file of all point shots.

Consultant will supply all traffic control required to accomplish the survey Work.

- a. Pre-survey Conference: (See CDOT Form 1217a). Prior to commencing survey work, a pre-survey conference shall be held as per the CDOT Survey Manual with attendees from the Consultant team.

- b. Survey Data Research: Research shall be done as per CDOT Survey Manual, Chapter 5, Section 3, as amended, also the CDOT Right-of-Way Manual, Chapter 2 (as revised).
- c. Secure Rights of Entry (Thornton): Some activities may require work on land not controlled by Thornton. In such cases Thornton shall obtain the necessary written permission to enter the premises. Included in this written permission will be the names and telephone numbers of persons to contact should notification prior to entry be necessary. These written permissions apply to Thornton's personnel as well as other Consultant team personnel. CDOT Form 730 (as revised) may be used for this purpose, following procedures in the CDOT Survey Manual. Signed copies of the written permission will be submitted to Thornton's PM prior to entering private property for survey work.
- d. Project Control Survey: (Consultant)
 - (1) Project control shall be tied to the nearest Colorado High Accuracy Reference Network Station (HARN). In the event there are no HARN stations within 3.107 miles of the Project (Order B, 1:1,000,000 accuracy), or HARN Densification (Order B-2, 1:500,000 accuracy), additional HARN Densification stations shall be set. NGS Blue Book procedures shall be followed for all HARN Densification stations. This will include proper spacing using proper monumentation, equipment, observation procedures, coordination through the Colorado State Geodetic Advisor and submission to NGS for inclusion in the National Database.
 - (2) Monumentation: Materials will be supplied by Consultant and care is to be taken to install said monumentation in locations that are readily usable for the Project and in as safe a location as possible so that they can be utilized throughout construction (No monumentation shall be set on or near the centerline of the proposed roadway).
 - (3) Local Project Control: Survey the required Project control (centerline/baselines and elevation reference) as required. Prepare a Control Survey Diagram showing graphical representation of all monuments used for control. Tabulate the coordinates and physical description of all found monuments and other physical evidence.
 - i. Horizontal control: All survey control work shall be based on Horizontal Control grid, NAD83. Project control shall also be tied to the HARN as described above.
 - ii. Vertical datum: All survey control work shall be based on datum (NAVD 88).

- e. Land Survey/Boundary Survey (Consultant): Tie aliquot, property and other land monuments to the control survey. Prepare a Control Survey Diagram showing graphical representation of all found aliquot, property and land monuments. Tabulate the coordinates and physical description of all found monuments and other physical evidence.
- f. Utility Survey (Consultant): Within the “Limits of Detailed Roadway, Tree, and Utility Design Survey”, the following three-dimensional survey data will be collected via ground survey methods using TMOSS: utility poles, manholes, valves, pedestals, guy wires, other surface evidence of underground and above-ground utility facilities, and **paint marks denoting the location of underground utilities as marked by (Consultant) under “Section C.5. – Preliminary Design, Utility Coordination” of this Agreement.** Determine invert elevations and sizes of manholes and vaults. Survey the locations of utilities exposed by "potholing" done by Consultant in accordance with Section C.5.

The Consultant shall ensure that the locations of all of the subsurface utilities have been properly investigated, located and depicted on the drawings, and that all utility locations and depictions are in compliance with Colorado Senate Bill 18-167. Consultant shall further attempt to achieve ASCE 38 utility quality level B (or its successor utility quality level) on all utilities within any proposed excavation areas unless a reasonable rationale by a licensed Professional Engineer is provided in writing for not doing so.

- g. Hydraulic Survey: Within the “Limits of Detailed Roadway, Tree, and Utility Design Survey” on Exhibit D, Project Concept, locate culvert and storm sewer pipes and determine sizes and invert elevations. Locate inlets and determine invert elevation of pipes. Accomplish drainage situation surveys for culverts and bridges within those limits and otherwise noted on the Exhibit. Adequate topographic mapping shall be acquired to complete a floodplain assessment of existing conditions and evaluate impacts caused by the Project.
- h. Supplemental surveying (Consultant): The following supplemental survey work will be performed:
 - i. Survey the location of geotechnical test holes.
 - ii. Up to two (2) days of supplemental field surveying by a two (2) person crew, and associated office processing Work for miscellaneous additional information Consultant and/or Thornton determine to be needed during design. Up to three (3) separate mobilizations are anticipated for this task.
- i. Survey Report (Consultant): Prepare a Survey Report as required in the CDOT Survey Manual.

- j. Equipment Calibration (Consultant): Tests are to be performed on a regular basis throughout the Project by the Consultant.
- k. Review by Professional Surveyor (Consultant): The accuracy tests are to be reviewed by the PLS in Responsible charge for the Project, and submitted to the Consultant engineer and made part of the Project records. Further review of all aspects of the field and office work shall also be the responsibility of the PLS in Responsible charge.

Note: The completed survey shall be reviewed by the region survey unit. Two weeks should be provided in the schedule to complete the review and sufficient time should be provided to address all comments provided by this review.

Design shall not proceed until all comments resulting from this review have been satisfactorily addressed.

- 2. Traffic Engineering: (Consultant, except as noted)
 - a. Collect Available Traffic Data from Thornton, Adams County, City of Commerce City and CDOT Traffic Division, including intersection turning movement counts at each of the signalized intersections within the Project limits:
 - (1) Turning Movement Counts (two [2] hour periods in the a.m. and p.m. peaks); and
 - (2) Twenty-four hour (24) hour Tube Counts for ADT Directional/Volume.
 - b. Prepare a preliminary traffic signal plan.
 - c. Show proposed striping plan on roadway plan sheets.
 - d. Develop turning templates for preliminary layout to ensure intersection functions properly. The appropriate design vehicles for this location will be determined and used in the templates.
 - e. Intersection level of service analysis.
 - f. Level of service analysis should account for future growth.
 - g. Determine required storage length for all left and right turn bays at the intersection.
 - h. Develop needed ESAL for pavement designs. Design life to be provided to Consultant by CDOT.
- 3. Materials Engineering: (Consultant)
 - a. Preliminary Soil Investigation.

- (1) Determine test hole locations (horizontal and vertical) and coordinate with the COT/PM. Contact UNCC to clear utilities for boring locations. Obtain permits from CDOT for drilling test holes. Drill three (3) pavement test holes (approximately 1,500' at 500' spacing) and three (3) structure test holes (three [3] structures, one [1] boring each). Pavement borings depth will extend to 5'. Structure borings will extend to depths sufficient to characterize bearing conditions (anticipated to be about 20') Traffic control will be provided.
 - (2) Collect soil samples and test for:
 - (a) Classification;
 - (b) Moisture - Density Relationship;
 - (c) Resistance Value;
 - (d) Gradation;
 - (e) Liquid and Plastic Limits;
 - (f) Unconfined compressive strength; and
 - (g) Water soluble sulfates.
 - (3) Analyze the test data to determine the soil structural capability.
 - (4) Prepare and submit a soils investigation report with recommendations to Thornton's PM for review.
- b. Pavement Rehabilitation. This section applies since a goal of the Project is to continue to use the existing pavement to the greatest extent possible.
- (1) Obtain Design Traffic Data.
 - (a) For existing pavement:
 - Determine the equivalent Design Traffic (18k ESAL) that the existing pavement can carry.
 - Estimate the 18k ESALs experienced by the existing pavement.
 - (b) Develop the projected 18k ESAL for rehabilitated pavement design period. Truck percentages from CDOT's website will be used in the ESAL calculation.
 - (2) Perform a Distress Survey.
 - (a) Determine the types of distress present in the pavement.
 - (b) Determine the extent of each distress type.
 - (c) Develop a distress map for the existing pavement.
 - (d) Identify the possible causes of the existing distress.

- (e) Determine the drainage conditions of the existing surface and subsurface.
 - (3) Investigate the existing pavement structure.
 - (a) Material test results.
 - Subgrade: Soil classifications, Moisture/Density Relationship, Resistance value;
 - Base: Thickness, Gradation, Plasticity Index, and Liquid Limit, Strength Coefficient from FWD testing; and
 - Pavement: Thickness, Strength Coefficient from FWD testing.
 - (b) Using a Falling-Weight Deflectometer (FWD), perform deflection testing to obtain the following:
 - Deflection profile;
 - Maximum deflection;
 - Deflection basin; and
 - In place determination of the appropriate Modulus for each layer and subgrade.
 - (c) Determine the remaining load carrying capacity from the above data.
 - (4) Design the feasible alternatives for the required rehabilitation and widening utilizing the above investigations and test results.
 - (5) The design of the feasible alternatives shall be checked against the following criteria:
 - (a) The basic cause of distress shall be corrected.
 - (b) Effect on the rate of future deterioration.
 - (c) Effect on surface characteristics.
 - (6) Where appropriate, any new pavement widening shall be included in the analysis.
- c. **New Pavement Structure:** The feasible alternatives of new pavement structure shall be designed utilizing procedures accepted by Thornton's PM. New pavement designs for widening shall be compatible with adjacent rehabilitated existing pavement.
- d. **Pavement Justification:** The results of the field and laboratory investigations will be evaluated to provide the equivalent design traffic (18k ESAL) that the existing pavement can carry, estimate the 18k ESALs experienced by the existing pavement, and prepare pavement

thickness designs for overlay of the existing pavement and for widened sections.

Life cycle cost analysis of pavement material alternatives will include only Concrete Overlay versus HMA reconstruction.

- f. Geotechnical Design Report. Include all the above tests, investigations, analyses, and calculations performed as a result of this section. Submit to Thornton's PM for acceptance.
4. Hydrology/Hydraulic Engineering: (Consultant)
- a. Hydrology
 - (1) Establish drainage basin data: delineate, determine size, waterway geometric, vegetal cover, land use.
 - (2) Collect historical data; research flood history and previous designs in the proximity; and obtain data from other sources (e.g., Urban Drainage and Flood Control District, Colorado Water Conservation, CDOT Maintenance, and local residents).
 - (3) Select a storm frequency based on the CDOT Design Guide criteria. If it is not possible to use the CDOT Design Guide storm frequency criteria for a storm sewer or culvert design, the COT/PM should be notified. A risk analysis may be required, but will not be accomplished without prior written approval from Thornton.
 - (4) Perform a hydrological analysis using existing studies or approved methods (see CDOT Design Guide). For example: Compile precipitation and stream gauge data, select runoff parameters, analyze gauge data, and predict peak flows. Calculate run-off and design flow rates. Create runoff hydrograph as if storm routing is necessary.
 - b. Hydraulics
 - (1) Accomplish the preliminary design of drainage structures:
 - (a) Determine location and crossing alignment. Identify channel centerline by highway station or coordinates, as appropriate.
 - (b) Determine the allowable headwater.
 - (c) Assess the degree of sediment and debris problems to be encountered.
 - (d) Determine and identify on the plans the type, size, length, and shape of the inlets, manholes, pipes, and open channels.
 - (e) Complete the design computations and documentations in accordance with the CDOT Drainage Design Guide.
 - (f) Determine high water level.

- (2) Off-alignment detours are not anticipated for this Project. Therefore, recommendations for culvert pipe sizes for proposed detours are not anticipated.
- (3) Identify locations and footprints of permanent stormwater quality (MS4) BMPs to a level that will allow determination of required ROW limits. It is not anticipated that permanent water quality facilities will be included.

c. Preliminary Hydraulics Report. Include the following:

- (1) Hydrology analysis;
- (2) Minor structure hydraulic designs;
- (3) Discussion of required permanent stormwater quality (MS4) facilities;
- (4) Appendix:
 - Drainage basin maps; and
 - Hydrology/hydraulic worksheets.

5. Utility Coordination

In accordance with C.R.S. 9-1.5.103, engineers or other persons designing excavation shall obtain general information as to the description, nature, and location of underground facilities in the area of such proposed excavation and include such general information in the plans or specifications to inform an excavation contractor of the existence of such facilities and of the need to obtain information thereon.

The Consultant shall ensure that the location of all of the subsurface utilities have been properly investigated, located and depicted on the drawings, and that all utility locations and depictions are in compliance with Colorado Senate Bill 18-167. Consultant shall further attempt to achieve ASCE 38 utility quality level B (or its successor utility quality level) on all utilities within any proposed excavation areas unless a reasonable rationale by a licensed Professional Engineer is provided in writing for not doing so.

To comply with this statute, the following specific tasks will be accomplished for this Project:

- a. Location Maps (Consultant):
 - Contact the Utility Notification Center of Colorado (UNCC) and request a list of utility owners registered with UNCC within the Project limits.
 - Contact utility owners provided by UNCC and irrigation companies and inquire whether these entities have utility / irrigation facilities within the Project corridor.

- Obtain available utility key maps from utility owners that reply that they indeed have facilities in the Project limits.
 - b. Utility locating (Consultant): Throughout the “Limits of Detailed Roadway, Tree, and Utility Design Survey” in “Exhibit D, Project Concept”, identify and paint the location of existing underground utilities (with the exception of service lines and utilities owned by private property owners). This Work will be performed prior to initiation of the field survey work.
 - c. Utility plotting (Consultant): To the extent possible, correlate the information from the utility key maps with the visible utility features surveyed and plot approximate location of existing utility lines in color on Project roadway plans. Service lines to individual residences, places of business, and utilities owned by private property owners are normally not shown on the drawings, and will not be shown as part of this Scope of Work. Should Thornton desire that such service and private lines be researched further and shown on the drawings, this Work can be provided as Additional Services. Underground utility lines for which no surface evidence exists and for which reliable map information is unavailable will not be shown unless identified by the utility owners during the coordination process.
 - d. Prepare a “Memorandum of Design – Utilities” (Consultant): The memorandum will contain the names of known utilities in the Project area and contacts at the utility companies. The memo will include a summary of the known utilities (based on field observation, UNCC contact, and available utility key maps).
 - e. Preliminary Utility Conflict List (Consultant): Compile a list of potential conflicts between the Project and existing utility facilities. Determine locations where utility potholing shall be performed. Utility potholing will be performed soon after the FIR. See Section D.3, “Final Design, Utility Coordination”.
 - f. Preliminary Utility Coordination (Consultant): Send copies of FIR plans and potential conflicts to utility companies to request verification of existing utility locations shown on the plans.
6. Roadway Design and Roadside Development: (Consultant)
- a. Roadway Design:

The Project limits and anticipated roadway improvements to be designed are illustrated in “Exhibit D, Project Concept”.

(1) Coordinate efforts with other design activities as required.

- (2) Check and plot survey data.
- (3) Draw a geometric layout. Determine (or verify) horizontal and vertical alignment. A Project-specific coordinate system approved by CDOT shall be used to identify the horizontal locations of key points. The coordinate systems used for roadway design and ROW shall be compatible. Check horizontal and vertical clearances against design criteria.
- (4) Provide alignments and required ROW (Preliminary Design Plans) to the manager responsible for producing the ROW ownership map.
- (5) Plot/develop all required information on the plans in accordance with CDOT Procedural Directive 514.1. Preliminary lane striping locations will be shown on the Roadway Plans. Separate Signing and Striping Plans will not be prepared at Preliminary Design.
- (6) Generate a three-dimensional design model of the proposed roadway using INROADS and compute preliminary earthwork quantities.

b. Roadside Development:

The Project limits and anticipated trail improvements to be designed are illustrated in “Exhibit D, Project Concept”.

- (1) Accomplish the following for landscaping, sprinkler systems, sound barriers, and sidewalks:
 - (a) Provide layouts in the FIR plans for sidewalks. Sound barriers are not anticipated to be required for this Project.
 - (b) Landscaping within the Project area is planned to be native seeding. Thus, sprinkler system sleeves underneath the proposed roadways will not be required. Sprinkler system work will be limited to notes requiring the Contractor to restore/modify existing sprinklers disturbed by the Project to operating condition.
 - (c) Provide estimates of quantities of native seeding and mulching for the FIR plans.
- (2) Submit plans to Thornton’s PM for inclusion in the FIR plans.

- c. Lighting Plan: Consultant will provide a lighting plan for new Thornton, United Power and Xcel owned LED Streetlights to replace the existing street lights within the Project limits. Lighting plans are required in accordance with the City of Thornton Standards and Specifications for the Design and Construction of Public and Private Improvements.

7. Right-of-Way (Consultant): The following Work shall be done by or under the immediate supervision of a Professional Land Surveyor (PLS).

a. Research

- (1) Identify affected ownership from preliminary design plans.
- (2) Obtain assessor's maps, locating Project limits.
- (3) Locate documents which transfer title. Provide Title Work – Two (2) parcels. Include one (1) update for title Work.
- (4) Provide chain of title to 1960 in accordance with Thornton requirements, as directed by Thornton PM.
- (5) Look for encumbrances, releases, etc.
- (6) Make physical inspection of property. Note any physical evidence of apparent easements, wells, ditches, ingress, and egress.
- (7) Check with County Road Department, County Engineer, or Thornton as appropriate for location of existing roads.
- (8) Check for and obtain latest subdivision plats and vacations of streets.

b. Ownership Map (Included with Right of Way plans)

For additional detail on required drafting software, COGO, and Project coordinate system see SECTION 2 - SUBMITTALS.

Ownership map shall be submitted along with a "Project Narrative" see SUBMITTALS - B.3.

- (1) Review preliminary design and survey report.
- (2) Review Project coordinate system and basis of bearing from Control Survey prior to calculations.
- (3) Compute alignment of ROW centerline and store coordinates of all found monuments within the first tier of properties left and right of Centerline.
- (4) Review ownership documents (Memoranda of Ownership and/or title commitments, deeds and supporting plats).
- (5) Calculate coordinates of lost or obliterated aliquot corners using guidelines established by the Bureau of Land Management. (To be used in resetting corners according to Colorado Revised Statutes).
- (6) Establish subdivisions of sections using Bureau of Land Management Guidelines. Show all section lines and ¼ section lines on the ownership map and ROW plans.
- (7) Determine existing ROW limits from deeds of record, available plans and found ROW markers.
- (8) Determine ownerships and their property boundary locations. Locate the intersection of these property boundary lines with the existing public ROW. Determine location and ownership of existing easements of record.

- (9) Secure additional property ties and additional topography where the highway improvement may affect improvements adjacent to the ROW. This additional topography should include:
 - (a) Proximate buildings, sheds, etc;
 - (b) Underground cables and conduits;
 - (c) Wells;
 - (d) Irrigation ditches and systems; and
 - (e) Septic tanks, cesspools, and leaching fields.
- (10) Reconcile overlaps and gaps in ownerships as required by Thornton, documenting method used (may require additional fieldwork). Include reasons for decisions in the "Project Narrative".
- (11) Ownership Maps are required with Project plan sets.
- (12) Label all monuments found with description of monument and Project coordinates (from Control Survey Diagram).
- (13) Show improvements and topography within the ownerships and existing access to the street/county road system.
- (14) 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 names of owners and lessees.
- (15) Calculate the total area of all ownerships affected, including coordinates of all property corners. Deduct areas for existing road Right-of-Ways. Bearings and distances do not need to be shown on Ownership Maps.
- (16) Different land uses within a property should be cross-hatched or shaded.
- (17) In the lower right corner of the Ownership Map, show seal, number, and name of Professional Land Surveyor supervising the Work.
- (18) Transmit finished reproducible Ownership Map, electronic drawing files, and Memoranda of Ownership to Thornton along with all calculations, field notes, and supporting data. The Ownership Maps will include a copy of the control and monumentation sheet. (Note that only the Project control data needs to be completed at this time).

8. Construction Phasing Plan: (Consultant)

A Construction Phasing Plan will be developed, which integrates the construction of all the Project Work elements into a practical and feasible sequence. This plan shall accommodate the existing traffic movements during construction (detours), which will be schematically illustrated for the FIR submittal on the Phasing Plan or via Construction Phasing Typical Sections.

9. Preparation for the FIR: (Consultant)

- a. Coordinate, complete, and compile the plan inputs from other activities such as materials, hydraulics, traffic, and ROW.

- b. If a major structure is included in the Project (none currently included in this Scope of Work), a general layout (which has been accepted by COT) will be included in the FIR plans.
- c. Prepare the preliminary cost estimate for the Work described in the FIR plans based on estimated quantities.
- d. The FIR plans shall comply with the requirements of the CDOT Procedural Directive 514.1 and 1905.1 and will include: title sheet, standard plans list, typical sections, general notes, roadway geometry sheets, roadway plan sheets at 1"=40' scale (at 11" x 17"), separate roadway profile sheets (1"=40' horizontal scale at 11" x 17" and suitable vertical scale), and roadway cross sections (50' intervals). These scales are such that separate intersection layout sheets are not necessary. The plan/profile sheets will include the following: all existing topography, survey alignments, projected alignments, profile grades, ground line, existing ROW, rough structure notes (preliminary drainage design notes), and existing utility locations.

The following items which are listed as "desired items" in the Procedural Directives will be mandatory for the FIR plans:

- Preliminary earthwork (plotted cross sections at critical points with roadway template and existing utility lines at known or estimated depths);
 - Catch points;
 - Proposed ROW;
 - Stabilization data; and
 - Structure general layouts for the two (2) irrigation structure extensions discussed in section C.4. "Preliminary Design, Hydrology/Hydraulic Engineering".
- e. The ROW Ownership Map shall be included in the FIR plan set.
 - f. The plans shall be submitted to the COT/PM for a preliminary review prior to the FIR.
 - g. The plans (up to thirty-five (35) sets – fifteen (15) CDOT, ten (10) Thornton, seven (7) Utilities, and three (3) Consultant) will be reproduced by Consultant Reproduction. All FIR plan sets will be produced at 11" x 17" sheet size.
 - h. The Construction Phasing Plan described above will be included in the FIR plan set.

- i. For federally-funded local agency projects, CDOT Form 1048 is typically completed by the CDOT Local Agency Project Manager. Consultant will assist the Thornton in providing answers to questions CDOT has when completing this form.
10. Field Inspection Review (FIR): (Consultant)
 - a. Attend the FIR.
 - b. The FIR meeting minutes shall be prepared by the C/PM, approved by Thornton's PM, and distributed as directed.
 - c. Since Final Design is included in this Project, no formal post-FIR revisions submittal will be necessary. FIR comments will be incorporated into the plans during Final Design prior to the ROWPR and FOR.
 - d. Design decisions concerning questions raised by the FIR will be resolved in cooperation with Thornton's PM. Thornton's PM shall document the decision and transmit the documentation to the COT/PM for approval.
 - e. A list of all deviations from standard design criteria along with the written justification for each one (1) shall be submitted to Thornton's PM.
 11. Post-FIR Revisions. Since Final Design is included in this Project, no formal post-FIR revisions submittal will be necessary. FIR comments will be incorporated into the plans during Final Design prior to the ROWPR and FOR.

D. Right-of-Way

1. Right-of-Way: (Consultant)
 - a. ROW plans will be prepared in accordance with the current version of the CDOT Right-of-Way Manual.

The Agreement fee is based on the assumption that the ROW documents will include up to two (2) fee acquisitions and two (2) temporary easements. ROW Work for additional parcels can be provided as Additional Services.

Plan contents will include:

- Sheet No. 1 TITLE SHEET.
- Sheet No. 2 TABULATION OF PROPERTIES. If more than one (1) sheet is required, the following sheets will be numbered 2A, 2B, etc.
- Sheet No. 3 CONTROL SURVEY DIAGRAM. Tabulate the coordinates and physical description of all found monuments and other physical evidence. It will

also be depicted in a diagram form per the CDOT Survey and Right-of-Way Manuals. As above, additional sheets after the first will be numbered 3A, 3B, etc.

- Sheet No. 4 MONUMENTATION SHEET. Tabulate coordinates and type of all monuments to be set. Same numbering as above.
- Sheet No. 5 TABULATION OF ROAD APPROACHES. Same numbering as above.
- Sheet No. 6 PLAN SHEET. If more than one (1) sheet is required, the sheets will be numbered sequentially 6, 7, 8 etc.
- As appropriate: OWNERSHIP MAPS. These sheets will be the following number after the last "plan sheets".

b. Authorization Plan:

- (1) Integrate toes of slopes and other design details such as lane lines, culverts, road approaches, etc., into ownership map (base map for ROW plans).
- (2) Determine new ROW requirements, access control, and easements from design plans following the FIR and plot on ownership/base maps. Normal scale, 1"=20' Full size (22" X 34" plan sheets), 1"=40' half size (11" x 17" plan sheets). Revise numbering of ownerships to correspond to ROW acquisitions.
- (3) Calculate areas of parcels, easements, and remainders in accordance with CDOT Right-of-Way Manual.
- (4) Prepare ROW plan sheets on CDOT form 126-R, or equivalent AutoCAD format, as outlined in CDOT Right-of-Way Manual.
- (5) Prepare legal descriptions of parcels, easements, and access control as directed by the CDOT Right-of-Way Manual.
- (6) Prepare tabulation of properties sheet as directed by the CDOT Right-of-Way Manual.
- (7) Prepare ROW Title Sheet as directed by CDOT Right-of-Way Manual.
- (8) Incorporate the Control Survey and Monumentation Sheets into the plans. (See Survey Manual for a sample.)
- (9) On the Monumentation Sheet, list the ROW, Easement, Control, etc., points to be set and the aliquot corners to be reset per CDOT Right-of-Way Manual.
- (10) Prepare ROW Tabulation of Road Approaches, if applicable. Show owner, milepost/station, right or left of centerline, width of approach, skew angle, and any remarks as directed by the CDOT Right-of-Way Manual.
- (11) Hold ROW Plan Review (ROWPR), as directed by the CDOT Right-of-Way Manual, with Design, ROW, and Construction to determine if ROW plans are sufficient to proceed with appraisal of property to

- be acquired for the Project. Consultant team attendees will include all required Consultant personnel, and Subconsultants.
- (12) Transmit originals of the plan sheets, title sheet, tabulation of properties sheet, and revised ownership (memoranda of ownership and title commitments as directed by Thornton's PM), calculations and supporting data (i.e., parcel diaries), and final electronic data for all work products.
- c. **Appraisal Staking:** Stake the Proposed ROW line, Easements and Existing ROW line, if required by Thornton's PM (two [2] parcels required for staking). Set lathes or wooden stakes at all angle points and on line as necessary to have at least three (3) stakes visible from any point on line. Mark COGO point numbers on all stakes and color code per CDOT Survey Manual. The Appraisal Stakes only need to be set at an accuracy of +/- 1.0 foot, unless the point falls near improvements, then +/- 0.25 foot is necessary.
- d. **Right-of-Way Plan Revisions:**
- Upon incorporation of comments from the ROWPR into the ROW plans, and CDOT's approval of the ROW plans via authorization to Thornton to proceed with ROW acquisition, the ROW plans will be considered "Approved". Any subsequent changes required to the "Approved" plans will be handled as follows:
- (1) Changes requested by Thornton as a result of the appraisal and negotiation process or other non-Consultant-initiated changes to the Project design will be considered Additional Services and are not included in the base Agreement.
- (2) ROW plan revisions caused by Consultant-initiated design changes or corrections shall be made at the expense of the Consultant.
- e. **ROW Acquisition.** Appraisals, negotiation, and all other Work required for acquisition of necessary ROW parcels will be performed by Thornton.

E. Potential Additional Services

Potential 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 Work is being prepared (prior to initiating the Work). The following Scope of Work is "best estimates" or is "in anticipation" of the Work that may be required.

None of these Additional Services Work tasks are included in the base Agreement Scope of Work and Schedule of Charges, unless agreed to in writing by Consultant and Thornton. During execution of the Project, none of these tasks will be completed

without the written authorization of Thornton's Authorized Representative. At the time the need for the Additional Services is determined, the anticipated Scope of Work written herein will be reviewed for adequacy and the Consultant will advise Thornton whether more or less effort is needed. The adequacy of the established budget will also be reviewed. Should additional Work to that anticipated herein be requested or determined necessary, Thornton may authorize additional budget amounts. Should Thornton choose not to authorize the additional Work and budget amounts, the Consultant is not obligated to complete additional Work beyond the amount previously authorized and approved.

Hourly billing rates current for the period when the Work is performed will be the basis for establishing Consultant cost for Additional Services items.

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SECTION 2

SUBMITTALS

A. Reports

1. All required reports and studies shall be submitted for review to Thornton's PM. Final submittals shall incorporate the corrections and/or revisions resulting from the review.

Note: The Consultant is responsible for ensuring that the recommended alternative complies with applicable standards and criteria. Where appropriate, required variances will be identified.

2. Survey Plats: The Professional Land Surveyor Consultant who sets a monument shall prepare and file a plat in accordance with Section 1, 38-51-107 Colorado Revised Statutes, as amended. A copy of the plat and filing shall also be submitted to Thornton's PM.
3. Design: Submit the review plan set and hydraulic report covering all drainage items requiring Project plan work. Items discussed at each plan review will be covered in meeting minutes.

B. Data

The following field survey data must be submitted if produced during the Work. Three (3) copies of the Survey Report as described in the CDOT Survey Manual (Sealed and signed by PLS). The following will be included in the report or as attachments:

1. Handwritten field notes: This shall be the original notes that have been sealed and signed by the supervising Professional Land Surveyor registered with the Colorado State Board for Professional Engineers and Land Surveyors. Legible sealed and signed copies of the original field notes may be submitted in lieu of the original field notes only if approved by Thornton's PM.
2. Electronic field data: Prior to collecting data by electronic means the Consultant shall submit a sample and receive approval to continue the Work. A sealed and signed hard copy shall be submitted with all electronic data. Electronic data shall comply with the requirements outlined below.
 - One (1) three-ring binder containing GPS Bluebook and one bound copy for submission to NGS.
3. ROW Plans - A "Project Narrative" of the plans development shall be submitted. Items to be included in this narrative are:

- a. Method and points used as basis for establishing existing alignment and ROW limits.
- b. Procedures, property pins/points used to resolve ownership and property boundary locations.
- c. Procedures, property pins/points used to resolve or identify any gaps or overlaps discovered.
- d. Date, details and reasoning for any requests for additional survey data or ties.

C. Plans

Plan and map sheets shall comply with the following requirements:

1. All Review plans shall be provided in half-size (11"x17") format Scale 1 inch = 40 feet, unless otherwise specified by Thornton's PM.
2. The sheet size and number of complete Plan Sets for the final submittal shall be as specified in Section C14 "Final Design, Construction Plan Package" above.
3. For ROW plans, CDOT Form 126RA, Title Sheet, and Tabulation Sheets shall be provided as pre-setup ROW AutoCAD drawings. All plan sheets shall utilize this drawing format. See "Electronic Data Submittals" below.

D. Electronic Data Submittals

All material must be submitted to Thornton's PM. Acceptance of submitted material is the sole responsibility of the Thornton's PM.

ROW plans shall be submitted as a .dwg electronic drawing prepared using AutoCAD in a Model Space/Paper Space format. Copies of a usable prototype complete with the required CDOT borders will be supplied. The Model Space/Paper Space format may be forgone with Thornton's PM approval. AutoCAD will still be the required drafting package.

If the Model Space/Paper Space format is used, a "Master" drawing of the entire ROW plan from beginning to end shall be included as part of the electronic and hard copy submittals. The ROW Plan Sheets shall be created in "World Coordinates" (to be the same as Project coordinates used in the survey).

Electronic Plot Files (HPGL2 format) full size (22"x34") and (HPGL format) half-size (11"x17") shall also be provided. All material must be submitted to Thornton's PM. Acceptance of submitted material is the sole responsibility of Thornton's PM.

All Electronic drawing files and plot files shall be submitted as directed by Thornton's PM.

It is suggested that the Thornton's PM be contacted prior to creation of magnetic media to verify the current submission requirements or to discuss any questions concerning the ability to satisfy the current submission requirements.

E. Computer Data Compatibility

1. Design/drafting information: Two (2) options are available to the Consultant:
 - a. The original and design models shall be provided in an acceptable electronic format.

Submit cross-section strings from beginning to ending termini at fifty (50') foot intervals. Cross-section intervals may be modified as necessary to properly show features of the Project area. A cross-section string consists of a string generated perpendicular to an alignment. In addition, cross-section strings will be required at all cross-culvert locations, pavement width angle points and other locations as determined by the Project manager.

- b. The design information shall be submitted in AutoCAD.dwg format. The consultant shall use AutoCAD Version 2010 or later.

The cross-section string shall include all points necessary to satisfactorily define the ground features of the area. At a minimum, this includes all break points and template information sufficient to define the roadway.

The electronic file shall be organized so that all cross-section strings proceed up-station from beginning to end. The points in the cross-section shall be organized from left to right. Each point shall be defined by northing, easting, and elevations in that order.

2. Storage media submittals: COT can accept media of the following types and format:

5 ¼" CD / DVD ROM Disks

3. Required documentation: Thornton requires that each unit of the magnetic media submitted be identified with adhesive labels affixed to the media containing the following MINIMUM information as applicable, depending on the media, format, etc., used to create the storage media being submitted:

- Computer make, model, and operating system;
- Recording method, format, and density;
- Blocking factor and record lengths;
- Thornton Project Number and Thornton's PM name;
- Files name(s) and type(s) {ex. AutoCAD DWG};
- Date created; and
- Contact Person and telephone number.

A letter MUST accompany the magnetic media which contains the same information as required on the media AND:

Either contains a description of the operating system commands used to create the magnetic media or an attached computer generated listing of the actual process which created the magnetic media (preferred).

4. When the Thornton determines that the Final Contract documents are acceptable, the Consultant shall submit the following to Thornton:
 - a. Drawings as listed in section D.14.d. and g. Issue block shall say, "Issued for Bidding" and date.
 1. The specifications shall be single sided 8.5 inches x 11 inches and in a format compatible for inclusion into Thornton's standard construction Contract Documents.
 - b. Electronic files on CD of technical specifications and recommended revisions to COT's standard front end documents in Word format, Arial font, size 11 or 12, sided printing, 1.5" left margin, and 1" right margin. Electronic files on CD of drawings in AutoCAD format compatible with Thornton's system. Electronic PDF file containing the Bid drawings.
 - c. A Final Engineer's Estimate of Probable Construction Cost. Thornton requires that ten (10%) percent of the engineer's estimate be available in the overall budget for Minor Contract Revisions (MCR) for unforeseen changes during the construction of the Project.

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EXHIBIT C
SCHEDULE OF CHARGES

NOTE:

TERMS AND CONDITIONS CONCERNING THE FINAL PRICE AND COMPENSATION OF THE CONSULTANT SHALL NOT BE DETERMINED DURING THE INITIAL REQUEST FOR PROPOSAL PHASE. EXHIBIT "C" RELATING TO PRICE, HOURLY RATES, COSTS, ETC., SHOULD NOT BE SUBMITTED IN THE INITIAL REQUEST FOR PROPOSAL PHASE.

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EXHIBIT D

PROJECT CONCEPT



Widen 104th Avenue (CO 44) from Colorado Boulevard to US-85 to a five-lane section with bike lanes, shared use paths and sidewalks, and two through lanes in each direction with a center turn lane. Major intersections will be evaluated for double left and right turn lane movements. Traffic signal engineering for full replacement or major modifications shall be included in the Project scope at the intersections of Riverdale Road, McKay Road, and Brighton Road.

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EXHIBIT E

AFFIDAVIT

I, _____, swear or affirm under penalty of perjury under the laws of the State of Colorado that:

Check Only One

- I am a United States citizen, **OR**
- I am a Permanent Resident of the United States, **OR**
- I am lawfully present in the United States pursuant to federal law.

I understand that the law requires this sworn statement because I will be performing Services under a public contract, which is a public benefit. I further acknowledge that making a false, fictitious, or fraudulent statement or representation in this sworn Affidavit is punishable under the criminal laws of Colorado as perjury in the second degree under Colorado Revised Statute 18-8-503 and it shall constitute a separate criminal offense each time a public benefit is fraudulently received.

Signature

Date

I, _____, City of Thornton employee, observed the identification supplied by the above named individual and affirm that it appears to be valid and is of the following form:

CHECK ONLY ONE

- Colorado Driver's License or state issued identification card.
- United States Military or Military Dependent's Card.
- Merchant Mariner Card.
- Native American Tribal Document.
- Valid Driver's License or state issued identification card bearing applicant's photograph issued by one of the following (all states are not listed here; only those that verify lawful presence): Alabama, Arizona, Arkansas, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Idaho, Indiana, Iowa, Kansas,

New Jersey, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Virginia, West Virginia, and Wyoming.

____ Certificate verifying naturalized status issued by an authorized agency of the United States bearing Applicant's intact photograph impressed with the raised embossed seal of the issuing agency.

____ Certificate verifying United States citizenship issued by an authorized agency of the United States bearing Applicant's intact photograph impressed with the raised embossed seal of the issuing agency.

____ Valid immigration documents demonstrating Lawful Presence and verified through the Systematic Alien Verification for Entitlements, administered by the United States Citizenship and Immigration Services of the Department of Homeland Security. Valid Immigration documents are as follows:

- Unexpired Foreign Passport bearing an unexpired "Processed for I-551" stamp or with an attached unexpired "Temporary I-551" visa.
- Unexpired Foreign Passport accompanied by an "I-94" indicating a specific future "until" date.
- "I-94" with refugee or asylum status.
- Unexpired "Resident Alien" card, "Permanent Resident" card, "Temporary Resident" card, or "Employment Authorization" card.

Signature

Date

VIII. EXHIBIT 3

REFERENCE AUTHORIZATION AND RELEASE FORM

By: _____, A Corporation
 _____, A Partnership whose address is:
 _____, An Individual
 (Proposing firm)

Proposing Firm has submitted a sealed proposal to the City of Thornton (Thornton) for Consultant Design Services for the 104th Avenue Widening (CO 44): Colorado Boulevard to US-85 Preconstruction Activities, Project No. 21-41 (Project).

Proposing Firm hereby authorizes Thornton to perform such investigation of proposing firm as it deems necessary to verify the qualifications, responsibility, trustworthiness and financial ability of Proposing Firm. By its signature hereon, the proposing firm authorizes Thornton to obtain reference information concerning the proposing firm. Proposing Firm further agrees to release and hold Thornton and the firm or agency providing reference information harmless from all liability resulting from providing the requested reference information to Thornton about the Proposing Firm.

Proposing Firm further authorizes Thornton to discuss and release reference information regarding Proposing Firm's performance as it will relate to this upcoming Project upon receiving a request for such information. Proposing Firm agrees to release and hold Thornton harmless from all liability associated with releasing such information about Proposing Firm.

Proposing Firm further waives its right to receive copies of reference information provided to Thornton. By signing below, Proposing Firm agrees with the terms of this Reference Authorization and Release and authorizes Thornton to obtain reference information concerning Proposing Firm.

A copy or facsimile of this executed Reference Authorization and Release Form may be used with the same effectiveness as an original.

 Signature Date

 Print Name

 Title

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IX. EXHIBIT 4

CONSULTANT EVALUATION SCORE SHEET

CONSULTANT EVALUATION SCORE SHEET			
Board Member Designation:	Consultant Name:		
5 – Superior 3 – Satisfactory 2 – Satisfactory Minus 4 – Satisfactory Plus 1 – Unsatisfactory Panel Members may use decimals or fractions			
<u>CONSULTANT FACTORS</u>	POINTS	WEIGHT	FINAL SCORE
<u>PROJECT TEAM</u>		10%	
1. Provided Organizational Chart with Roles/Responsibilities of Key Personnel 2. Outlined Lines of Communication between team and City 3. Qualifications and ability of professional personnel 4. Experience on similar Projects as a team 5. Commitment Team-Integrity for key members 6. Portion of design that is self-performed Comments: <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>			
<u>FIRM CAPABILITY</u>		15%	
1. Firm's capacity to do Project concurrent with existing and projected work load and technical staff 2. Production facilities and key capabilities such as CADD Comments: <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>			
<u>PAST PERFORMANCE</u>		5%	
1. Experience: Has completed at least 3 projects of similar size, scope and complexity 2. Experience: Included complete experience Narratives 3. Experience: In dealing with federal, state and municipal governments 4. Past Performance Questionnaires demonstrate ability to control costs quality and schedule Comments: <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>			
SUBTOTAL			

CONSULTANT EVALUATION SCORE SHEET			
<u>RESPONSIVENESS</u>		5%	
<ol style="list-style-type: none"> 1. Firm's location in respect to city of Thornton 2. Firm's knowledge of Project area and local practices 3. Firm's previous experience with city of Thornton 4. Does the proposal meet or exceed the terms of the RFP: Quality, Creativity, Flow, Thoroughness to include financial capability and litigation disclosure <p>Comments:</p> <hr/> <hr/> <hr/>			
<u>DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION</u>		10%	
<ul style="list-style-type: none"> • Prime Consultant is a DBE – Award 5 points • Prime Consultant is not DBE – Award 0 to 5 points considering the following: <ol style="list-style-type: none"> 1. Adequacy of DBE participation and evidence of commitment 2. DBE sub(s) is new or has a small amount of work 3. Subcontracted work DBE is meaningful work which can be efficiently separated 4. Good faith effort established <p>Comments:</p> <hr/> <hr/> <hr/>			
Consultant Name:			
<u>PROJECT PLAN FACTORS</u>	POINTS	WEIGHT	Final Score
<u>PROJECT CONTROL</u>		25%	
<ol style="list-style-type: none"> 1. Firm's approach to customer service—well thought out and articulated, discussed successes and best management practices on similar projects <ul style="list-style-type: none"> • Firm's best management practices in facilitating delivery and ease to the City 2. Certified: TQM, Six-Sigma, ISO 9000 <p>Comments:</p> <hr/> <hr/> <hr/>			

CONSULTANT EVALUATION SCORE SHEET			
<u>PROJECT CONTROLS</u>		30%	
1. Risk Management: Identification of Risks and Mitigation Strategies: Cost Increase, degradation of Quality, Impacts to Schedule 2. Controlling costs 3. Controlling quality 4. Meeting or exceeding the Schedule Comments: <hr/> <hr/> <hr/>			
TOTAL SCORE			

General Comments: _____

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X. APPENDICES

APPENDIX A

REQUIRED CONTRACT PROVISIONS FORM 1273
FEDERAL-AID CONSTRUCTION CONTRACTS

APPENDIX B

REFERENCE QUESTIONNAIRE PACKAGE
INFORMATION AND FORMS

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APPENDIX A

REQUIRED CONTRACT PROVISIONS FORM 1273 FEDERAL-AID CONSTRUCTION CONTRACTS

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ATTACHMENTS

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.
3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.
4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;

Section IV, paragraphs 1, 2, 3, 4, and 7;

Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.
6. **Selection of Labor:** During the performance of this contract, the contractor shall not:
 - a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
 - b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
 - a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
 - b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."
2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.
3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
 - a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
 - b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

- c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.
 - d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
 - e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
- a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.
 - b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)
 - c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.
5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:
- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
 - b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
 - c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
 - d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.
6. **Training and Promotion:**
- a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
 - b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
 - d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.
7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:
- a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
 - b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
 - c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.
 - d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.
8. **Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.
- a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.
 - b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 26, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.
 - c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.
9. **Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.
- a. The records kept by the contractor shall document the following:
 - i. The number of minority and non-minority group members and women employed in each work classification on the project;
 - ii. The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;
 - iii. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

- iv. The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.
- b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

- a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.
- b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).
- c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

- a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its

subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

- b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.
- c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

- a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.
- b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:
 - i. the work to be performed by the additional classification requested is not performed by a classification in the wage determination;
 - ii. the additional classification is utilized in the area by the construction industry;
 - iii. the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
 - iv. with respect to helpers, when such a classification prevails in the area in which the work is performed.
- c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

- a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.
- b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

- a. Apprentices:
 - i. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.
 - ii. The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.
 - iii. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.
 - iv. In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

- i. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.
- ii. The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.
- iii. Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.
- iv. In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under an approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any

laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

- a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

- b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.
- c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.
- d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - i. that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;
 - ii. that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;
 - iii. that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.
- e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.
- f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.
- g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:
 - a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.
 - b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.
 - c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.
2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).
 - a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.
 - b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.
2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.
4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it

determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).
3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

- In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

- *"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or*
- *Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or*
- *Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;*
- *Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."*

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.
2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.
3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
- d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
- g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or

agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

- 1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
 - d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- 2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

APPENDIX B

REFERENCE QUESTIONNAIRE PACKAGE INFORMATION AND FORMS

Instructions to proposing firms for sending Reference Questionnaire Forms:

PROPOSING FIRMS: Prepare and send a reference questionnaire package for each project listed on your past performance list.

PROPOSING FIRMS: Prepare and send a reference questionnaire package for three (3) to five (5) relevant projects completed in the past five (5) years. It is the responsibility of the proposing firms to follow-up, and include all signed originals of the Reference Questionnaire packages with their proposal submittal. Your questionnaire package should contain the following.

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Proposing Firms Letterhead

Date: _____

To: _____

We have listed you as a reference for work we have performed for your agency as noted on the attached questionnaire. Our firm intends to submit a proposal under a project advertised by the City of Thornton for Thornton Trail Wayfinding Signage Project - Phase II. Please complete this form in full (all areas shaded in light yellow, below). Once completed, please send the form to the Contract Specialist via postal mail or email, directly to:

Proposing Firms Name

ATTN: _____

Proposing Firms Address

Proposing Firms Address

Email Address: XXXXXXXX@XXX.xxx

Please return the completed form no later than _____, 2019. If you have any questions, please contact _____ via email, or call XXX-XXX-XXXX. Thank you for your assistance in this matter.

GENERAL INFORMATION [completed by Proposing Firms]

Agency Name		Agency Street Address	
Agency Point of Contact Name		City	
Agency Phone Number		State	
Reference Project Title		Zip Code	
Period of Performance (start to finish):		Email	
Contract Number			
Description of Work			
Role of Consultant on This Project (check appropriate box)	<input type="checkbox"/> Consultant <input type="checkbox"/> Sub-consultant <input type="checkbox"/> Key Personnel		

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REFERENCE QUESTIONNAIRE PACKAGE

INSTRUCTIONS TO REFERENCE CONTACT

The Proposing Firm named below is submitting a Proposal for the City of Thornton's Request for Proposals requirements, and has sent this form to you, in your role as a past performance reference contact. Please complete this form in full (all areas shaded in light yellow, below). Once completed, please send the signed form to the Proposing Firm's address stated below via postal mail or e-mail, directly to:

ATTN: _____

_____ Email Address: XXXXXXXX@XXX.XXX

Please return the completed form no later than _____. If you have any questions, please contact Mr. _____ via email, or call XXX-XXX-XXXX. Thank you for your assistance in this matter.

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RESPONDENT INFORMATION

PERFORMANCE INFORMATION: The following performance questionnaire is completed by reference contact. Choose the number on the scale of 1 to 6 that most accurately describes the consultant's performance or situation. **PLEASE PROVIDE A NARRATIVE EXPLANATION FOR ANY RATINGS OF 1 OR 2** in the Remarks section, below (text box will expand to whatever extent is necessary).

1	2	3	4	5	6
UNSATISFACTORY	MARGINAL	SATISFACTORY	VERY GOOD	EXCEPTIONAL	NEUTRAL
Performance did not meet most contractual requirements. There were serious problems and the contractor's corrective actions were ineffective.	Performance did not meet some contractual requirements . There were problems, some of a serious nature, for which corrective action was only marginally effective.	Performance met contractual requirements. There were some minor problems and corrective actions taken by the contractor were satisfactory.	Performance met all contract requirements and exceeded some to the government's benefit. There were a few minor problems, which the contractor resolved in a timely, effective manner.	Performance met all contract requirements and exceeded many to the government's benefit. Problems, if any, were negligible and were resolved in a timely, highly effective manner.	No record of past performance or the record is inconclusive. ¹

The Contractor ...		1	2	3	4	5	6
1.	The relationship between the proposing firm's and client's/customer's contract team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	The proposing firms management and coordination of personnel, and subconsultants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Quality of Work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Quality of Assurance and Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Ability to meet agreed upon delivery schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Ability /actions to resolve design issues and or schedule issues.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7.	Ability to control design cost and provide a reasonable engineer's estimate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The Contractor ...	1	2	3	4	5	6
8.	Have any show cause letters, letter of reprimand, suspension of work, or termination been issued? If yes please explain below;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Identified problems as they occurred.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Suggested alternative approaches to problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Displayed initiative to solve problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Would you award another Contract to the party being evaluated? If no, please explain below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Was the customer satisfied with the end product? If no, please explain below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	Has the firm being evaluated been provided an opportunity to discuss or respond to any negative comments or performance ratings? If so, what were the results?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS (Please use as much space as is needed – the box will expand as you type).