

**CITY OF THORNTON**

**REQUEST FOR PROPOSALS**

**FOR**

**TRAFFIC ENGINEERING SERVICES**

**FLASHING YELLOW ARROW SIGNAL MODIFICATIONS**

**CDOT PROJECT NUMBER SHO M286-056 – SA 25527**

**PROJECT NO. 23-208**

**November 2023**

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### III. NOTICE REQUEST FOR PROPOSALS

The City of Thornton, CO (“Thornton”) respectfully requests separate sealed Proposals for Transportation Consulting Services for **Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527**, (hereinafter referred to as “Project”). Proposals will be received until **3:00 p.m.**, local time, **January 10, 2024** in the Contract Administration Office, 9500 Civic Center Drive, 2<sup>nd</sup> Floor City Hall, Thornton, CO 80229-4326.

Approved Methods for Submission of Proposals: Electronic proposals shall be submitted/uploaded to BidNetDirect.com website in response to this solicitation; or Physical proposals may be submitted by mail or courier service; or Physical Proposals will be received in the Contract Administration Office, 9500 Civic Center Drive, 2<sup>nd</sup> Floor City Hall, Thornton, CO 80229-4326.

Late Proposals will not be accepted under any circumstances.

Project Description: This Project consists of Engineering Services to accomplish design changes to twenty-two (22) existing signalized intersections for modification from Protected Permissive Left Turn (PPLT) operations to Flashing Yellow Arrow (FYA) Left Turn operations. All intersections included in this Project are located within the city limits of Thornton, Colorado.

Every federally funded contract requires a DBE Goal. The DBE goal for this Project is zero percent (0%).

Thornton utilizes the BidNet Direct System at [www.BidNetDirect.com](http://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 **10:00 a.m., December 22, 2023**. 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](mailto: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, Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527"**. 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, Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527"**.

Proposals submitted electronically shall be uploaded to the Vendor's portal through the BidNetDirect.com website and shall follow the process/guidelines identified on the website and this solicitation.

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](mailto: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: **December 7, 2023**, Northglenn-Thornton Sentinel

Second Advertisement: **December 14, 2023**, Northglenn-Thornton Sentinel

Third Advertisement: **December 21, 2023**, Northglenn-Thornton Sentinel

BY:  12/15/2023  
A459E4EEA8C24E5  
Dennis Laurita  
Contracts Supervisor

## IV. PROPOSAL INSTRUCTIONS AND INFORMATION

Thornton is soliciting written Proposals from qualified firms for Transportation Consulting Services for **Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527**. 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 or 303-538-7643  
E-mail: [Keith.griess@ThorntonCo.gov](mailto: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 (10<sup>th</sup>) 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 Contracts and Purchasing office located at Thornton City Hall, City of Thornton, 9500 Civic Center Drive, 2<sup>nd</sup> Floor City Hall, Thornton, CO 80229-4326 or submitted via the BidNetDirect.com vendor portal **prior by 3:00 p.m. local time on January 10, 2024**. 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, Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527"**, 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, Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527"**, 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 price quotes submitted and requested by Thornton after selection of apparent Awardee, 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. 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.
3. Past performance of the proposing firm for Thornton and other owners and results of reference checks.
4. Experience of the proposing firm in dealing with municipal or other governmental agencies in projects of similar size, scope, and nature.
5. The proposing firm's engagement team, including the experience and resumes of key personnel assigned to the Project.

**I. 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.

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## 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 (if allowed), 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 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. An estimate of labor resources needed by task or phase broken down by man-hours for each individual assigned to the Project, including subconsultant personnel. In addition, indicate total estimated cost for each task or phase by multiplying the applicable billable hourly rates by the proposed labor hours, and adding in subconsultant fees, and other estimated reimbursable expenses. All cost/fees/rates are to be submitted in a separate sealed file/envelope, as will be requested by City, upon selection of apparent Awardee.
7. The proposed Exhibit C, Schedule of Charges, which is in Exhibit 2, Agreement, containing the billable hourly rate schedule of the proposing firm including the hourly rates for all personnel assigned to the Project team, subconsultant's fees, and rates for proposed reimbursable expenses such as mileage, equipment, printing, postage, courier service fees, etc. Reimbursable expense categories identified in the Reimbursable Expense Schedule must include all expenses for which the proposing firm will expect separate reimbursement. Expense categories not identified will not be reimbursed separately but are assumed to be included in the billable hourly rates or the fixed fee, whichever is applicable. Reimbursable expenses are reimbursed at cost. The proposed Schedule of Charges will be the sole basis of payment. All cost/fees/rates are to be submitted in a separate sealed file/envelope, as will be requested by the City, upon selection of apparent Awardee.
8. A list of what portion of the Services, if any, will be subcontracted.
9. A list of at least three (3) references for which similar services have been provided. Include current contact names, addresses, and telephone numbers.
10. An executed Exhibit 3, Reference Authorization and Release Form.
11. 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.
12. 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.

13. Any other information deemed necessary by the proposing firm.
- 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

### CITY OF THORNTON AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES

#### FLASHING YELLOW ARROW SIGNAL MODIFICATIONS, PROJECT NO. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527

This Professional Consulting Services Agreement for **Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527**, (“Agreement”) is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2023, 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, or may be referred to as Service Provider”) each may be referred to collectively as, the (“Parties”) or individually as the (“Party”).

#### I. RECITALS

- A. Thornton sought out Professional Consulting Services in connection with City of Thornton **Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527** (the "Project").
- B. Consultant submitted an offer and Thornton selected Consultant to work on this Project after Thornton determined Consultant has the requisite expertise and professional experience to perform the Services this Project requires;
- C. Consultant further represents it has the requisite skills, knowledge, expertise and experience to perform the Services Thornton needs and requires during the term of this Agreement;
- D. Consultant agrees to 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.

For good and valuable consideration, the sufficiency of which is hereby acknowledged, the Parties agree as follows:

#### II. TERMS & 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 twenty-four (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. Appendix A:

- i. (Federal) Required Contract Provisions;
- ii. Federal Aid Construction Contracts;
- iii. Certification For Federal-Aid Contracts;
- iv. Local Agency Procedures For Consultant Services;
- v. Additional Federal Requirements;
- vi. FFATA Supplemental Federal Provisions;
- vii. OMB Guidance For Federal Awards;
- viii. Federal Treasury Provisions; and
- ix. Agreement With Subrecipient (Provided Under Separate Cover), if applicable.

b. Thornton Approved Amendments to this Agreement.

c. 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; and
- iii. Exhibit C Schedule of Charges.

d. 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. Consultant 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 Consultant’s response to the Request for Proposals;

- c. Appendix B Reference Questionnaire Package Information And Forms; and
    - d. Other Thornton policies and procedures as applicable.
  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 Engineering Services to accomplish design changes to twenty-two (22) existing signalized intersections for modification from Protected Permissive Left Turn (PPLT) operations to Flashing Yellow Arrow (FYA) Left Turn operations. All intersections included in this Project are located within the city limits of Thornton, Colorado.
- D. **Consultant's Scope of Services, Commencement.** Upon receipt of a written Notice to Proceed from Thornton, Consultant agrees that it will furnish 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**, Consultant's General 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.** In consideration for the completion of the Services by Consultant, Thornton will pay Consultant the billable hourly rates, and approved reimbursable expenses, in accordance with the attached **Exhibit C Schedule of Charges**. The total compensation for a given Task Assignment may be subject to a not to exceed ("NTE") amount as provided for in **Exhibit C**. Upon mutual agreement, a NTE amount may be converted to a lump sum fee.

2. Invoicing.

- a. Consultant shall prepare and send by electronic format a detailed monthly invoice to [ap.invoices@ThorntonCo.gov](mailto:ap.invoices@ThorntonCo.gov).
- b. Invoices become due and payable thirty (30) Calendar 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 Consultant 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.

1. A change in the Consultant's Scope of Services shall constitute any change or amendment of Services, which is different from or additional to Consultant's Scope of Services as defined in **Exhibit A** of this Agreement. No change to the General Scope of Services, including any requested changes to contractually established billable/unit rates, shall be effective or paid unless authorized by a written Amendment executed by Thornton's City Manager ("Manager") or Manager's designee(s) with the same formality as this agreement.
2. 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 Scope of Services or the terms of this Agreement.

3. If Consultant proceeds without such written authorization, then Consultant shall be deemed to have waived any claim for additional compensation, including a claim based on a theory of promissory estoppel, unjust enrichment, quantum meruit, or implied 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, Consultant's 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 are 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.

**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. Any one (1) fire \$50,000

f. 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.

g. 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. Other Insurance Coverages Required.
  - a. Protected information insurance covering all loss of State Confidential Information, such as PII, PHI, PCI, Tax information, and CJI, and claims based on alleged violations of privacy rights through improper use or disclosure of protected information with minimum limits of one million (\$1,000,000) each occurrence and two million (\$2,000,000) aggregate.
  - b. Crime insurance including employee dishonestly coverage with one million (\$1,000,000) each occurrence and one million (\$1,000,000) aggregate.
  - c. Cyber/Network Security and Privacy liability insurance coverage with one million (\$1,000,000) each occurrence and two million (\$2,000,000) general aggregate.
  - d. Other insurance with varying limits which from time to time may reasonably be required by the mutual agreement of Thornton and Consultant against other insurable hazards relating to the Services.
6. Subconsultants. 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.
7. Thornton Named 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.

8. Certificates of Insurance. 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**. 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](mailto:certificatesofinsurance@ThorntonCo.gov) no later than thirty (30) Calendar Days prior to the expiration date and shall indicate "Renewal COI" and the Project Number in the e-mail subject line.

9. 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.
10. Other Insurance Requirements.
- a. Thornton 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.
  - b. 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.

- c. 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.
- d. 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) Calendar 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.

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.

2. **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:**

Attention: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 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. **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.
- K. **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.
- L. **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) Calendar Days after the notice is received to eliminate or cure the conflict of interest in a manner acceptable to Thornton.

- M. **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.
- N. **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.
- O. **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 of the Manager or Manager's designee(s). 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.
- P. **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.
- Q. **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.
- R. **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.
- S. **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.

- T. **Joint Venture.** If 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.
- U. **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.
- V. **Federal Requirements.** Consultant and any subcontractors or subconsultants shall at all times during the execution of this Agreement adhere to and comply with all applicable federal and state laws, and their implementing regulations, as they currently exist and may hereafter be amended. The applicable federal provisions that may be referenced herein, or are attached hereto as **Appendix A**.
- 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 to the Manager or Manager's designee(s), 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:  
FOR Tami Yellico, City Attorney

CITY OF THORNTON, COLORADO:

By: \_\_\_\_\_  
Michael J Hickman  
Senior Assistant City Attorney

\_\_\_\_\_  
Kimberly Newhart  
Finance Director

ATTEST:

CITY OF THORNTON, COLORADO:

\_\_\_\_\_  
Kristen N. Rosenbaum, City Clerk

\_\_\_\_\_  
Sean Saddler, PE  
Support Services 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 SCOPE OF SERVICES**

THE COMPLETE SCOPE OF WORK FOR CONSULTANT SERVICES INCLUDES:

#### **PART 1 - PROJECT SPECIFIC DESCRIPTIONS AND THE ATTACHMENTS**

- SECTION 1: PROJECT SPECIFIC INFORMATION
- 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
- SECTION 6: GENERAL INFORMATION
- SECTION 7: WORK ACTIVITY ASSIGNMENTS
- SECTION 8: SUBMITTALS
- SECTION 9: AGREEMENT CONCLUSION

ATTACHMENTS:

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

#### **PART 2 - PRECONSTRUCTION TASK DESCRIPTIONS**

##### **SECTION 1: PRECONSTRUCTION WORK TASK DESCRIPTIONS**

- A. PROJECT INITIATION AND CONTINUING REQUIREMENTS
- B. PROJECT DEVELOPMENT
- C. PRELIMINARY DESIGN
- D. FINAL DESIGN
- E. CORRIDOR MANAGEMENT SUPPORT / VALUE ENGINEERING
- F. BID PHASE SERVICES
- G. POTENTIAL ADDITIONAL SERVICES

##### **SECTION 2: SUBMITTALS**

- A. REPORTS
- B. DATA
- C. PLANS
- D. ELECTRONIC DATA SUBMITTALS
- E. COMPUTER DATA CAPABILITY

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## SECTION 1

### PROJECT SPECIFIC INFORMATION

#### 1.01 Planned Improvements.

This Project consists of Engineering Services to accomplish design changes to twenty-two (22) existing signalized intersections for modification from Protected Permissive Left Turn (PPLT) operations to Flashing Yellow Arrow (FYA) Left Turn operations. All intersections included in this Project are located within the city limits of Thornton, Colorado. The Project is federally funded, plans and specifications will need to conform to Colorado Department of Transportation (CDOT) standards and format. Consultant shall initiate the SUE utility process within the Project limits. The Consultant shall ensure that the location of all 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. The consultant shall be responsible for conducting an environmental assessment and 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. All work will occur within the existing Right-of-Way (ROW) for this Project.

The Project Concept is generally illustrated in Attachment D, Project Concept.

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

- Improved intersection safety;

**1.03 Project Location.** The locations of the intersections associated with this Project are located in the city limits of The City of Thornton. The Project Limits are more specifically illustrated in Attachment "D", Project Concept.

The locations included in this Project are:

- 84<sup>th</sup> Avenue & Conifer Street
  - Eastbound Left Turn
  - Westbound Left Turn 84<sup>th</sup> Avenue & Huron Street
  - Northbound Left Turn
  - Southbound Left Turn
  - Eastbound Left Turn
  - Westbound Left Turn

- 88th Avenue & Huron Street
  - Northbound Left Turn
  - Southbound Left Turn
  - Eastbound Left Turn
  - Westbound Left Turn
- 88th Avenue & Grant Street
  - Northbound Left Turn
  - Southbound Left Turn
  - Eastbound Left Turn
  - Westbound Left Turn
- 88th Avenue & Pearl Street
  - Eastbound Left Turn
  - Westbound Left Turn
- 88th Avenue & Corona Street
  - Eastbound Left Turn
  - Westbound Left Turn
- 88th Avenue & Poze Boulevard/McElwain Blvd
  - Eastbound Left Turn
  - Westbound Left Turn
- 97th Avenue & Grant Street
  - Northbound Left Turn
  - Southbound Left Turn
- 97th Avenue & Washington Street
  - Northbound Left Turn
  - Southbound Left Turn
- 98th Avenue & Grant Street
  - Northbound Left Turn
  - Southbound Left Turn
  - Eastbound Left Turn
  - Westbound Left Turn
- Thornton Parkway & Huron Street
  - Northbound Left Turn
  - Southbound Left Turn
  - Eastbound Left Turn
  - Westbound Left Turn
- Washington Street & Russell Boulevard
  - Northbound Left Turn
  - Southbound Left Turn
- 100th Avenue & McKay Road
  - Northbound Left Turn
- 104th Avenue & Fox Run Parkway
  - Eastbound Left Turn
  - Westbound Left Turn

- 104th Avenue & Steele Street
  - Eastbound Left Turn
  - Westbound Left Turn
- 108th Avenue & Colorado Boulevard
  - Northbound Left Turn
  - Southbound Left Turn
- 112th Avenue & Colorado Boulevard
  - Northbound Left Turn
  - Southbound Left Turn
  - Eastbound Left Turn
  - Westbound Left Turn
- 112th Avenue & York Street
  - Eastbound Left Turn
  - Westbound Left Turn
- 120th Avenue & Quebec Street
  - Northbound Left Turn
  - Southbound Left Turn
  - Eastbound Left Turn
  - Westbound Left Turn
- 121st Avenue & Colorado Boulevard
  - Northbound Left Turn
  - Southbound Left Turn
- 128th Avenue & Quebec Street
  - Northbound Left Turn
  - Southbound Left Turn
  - Eastbound Left Turn
  - Westbound Left Turn
- 144th Avenue & York Street
  - Northbound Left Turn
  - Southbound Left Turn
  - Eastbound Left Turn
  - Westbound Left Turn

**1.04 Work Duration.** The time for the described work in this scope is approximately: Design, one hundred and eighty (180) Calendar Days (2023-2024); Construction one hundred and eighty (180) Calendar Days (2024-2025).

**1.05 Consultant Responsibility.** The Consultant is responsible for:

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

**1.06 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;
- Preliminary Specifications;
- Field Inspection Review (FIR) Plans;
- ROW Plans and Legal Descriptions;
- Final Office Review (FOR) Plans and Specifications;
- Bid Plan Package including Specifications and Cost Estimate issued for advertisement for bids;
- Construction Plan Package including Specifications issued for construction, and addenda issued during bidding;
- Consultant shall provide recommendation on required environmental studies
- Consultant will be responsible for the environmental Scope of Work, including all deliverables need for the environmental clearance of the Project.

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

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

- GIS Maps depicting the general location of ROW, water and sewer pipelines;
- City of Thornton Transportation and Mobility Master Plan 2022;
- City of Thornton Traffic Signal Specifications for CIP Projects; and
- Standards and specifications from City of Thornton.

**1.09 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:

Matthew Koenig, Project Manager II  
City of Thornton  
12450 Washington Street  
Thornton, CO 80241  
Telephone: 720-974-6485  
Fax: 720-974-6202

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

- Cities – City of Thornton, City of Northglenn, City of Federal Heights
- Adams County
- Colorado Department of Transportation
- Regional Transportation District
- Denver Regional Council of Government (DRCOG)
- Division of Wildlife
- Metro Wastewater Reclamation District
- Xcel Energy
- 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 anticipated to 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.
- 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.

**4.02** Xcel Energy gas transmission line.

**4.03** CenturyLink (Qwest) utilities.

**4.04** City of Thornton water and sewer, fiber optic.

**4.05** Comcast utilities

**Note: The above is a list of the known features in the area. It should not be considered as complete. The Consultant should be alert to 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. Traffic Control	_____	<u>X</u>
7. Initial Submittals	_____	<u>X</u>
8. Progress Meetings	<u>X</u>	<u>X</u>
9. 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. Communication Aids	_____	<u>X</u>
3. Route Location Surveys (See Section C)		
4. Conceptual Design	_____	<u>X</u>
5. Gathering Data, Analysis, and Mitigation Development		
a. Traffic Related (See Section C)	_____	<u>X</u>
b. Archaeology/Paleontology	_____	<u>X</u>
c. Noxious Weeds	_____	<u>X</u>
d. Initial Geology Investigation (See Section C)	_____	<u>X</u>
e. Water Quality	_____	<u>X</u>
f. Ecological Assessment	_____	<u>X</u>
g. Historical	_____	<u>X</u>
h. 4(f)/6(f) Activity	_____	<u>X</u>
i. Threatened and/or Endangered Species	_____	<u>X</u>

	<u>Thornton</u>	<u>Consultant</u>
j. Wetlands		
(1) Wetlands Determination	_____	<u>  X  </u>
(2) Wetlands Findings Report	_____	<u>  X  </u>
k. Hazardous Materials	_____	<u>  X  </u>
l. Existing Roadway and Major Structures	_____	<u>  X  </u>
6. Obtain Permits		
a. 404 Nationwide Permit	_____	<u>  X  </u>
b. SB40 Certification	_____	_____
c. CDPS Stormwater Construction Permit	_____	<u>  X  </u>
d. 401 Permit Process	_____	_____
e. 402 Permit Process	_____	_____
<b>C. Preliminary Design:</b>		
1. Design Field Surveys	_____	<u>  X  </u>
2. Utility Coordination	_____	<u>  X  </u>
a. Location Maps	_____	<u>  X  </u>
b. Utility Locating	_____	<u>  X  </u>
c. Utility Plotting	_____	<u>  X  </u>
d. Prepare a Memorandum of Design - Utilities	_____	<u>  X  </u>
e. Preliminary Utility Conflict List	_____	<u>  X  </u>
f. Preliminary Utility Coordination	_____	<u>  X  </u>
3. Roadway Design and Roadside Development		
a. Roadway Design	_____	<u>  X  </u>
b. Roadside Development	_____	<u>  X  </u>
4. Preparation for the FIR	_____	<u>  X  </u>
5. Field Inspection Review	<u>  X  </u>	<u>  X  </u>
6. Post FIR Revisions	_____	<u>  X  </u>
<b>D. Final Design:</b>		
1. Project Review	<u>  X  </u>	<u>  X  </u>
2. Design Coordination	<u>  X  </u>	<u>  X  </u>
3. Utility Coordination	<u>  X  </u>	<u>  X  </u>
4. Interim Plans		
a. Initiate ROW Authorization Process	_____	_____
b. Final Utility Plans	_____	<u>  X  </u>
5. Materials Engineering (See Section C.3.)		
6. Traffic Engineering		
a. Permanent Signing/Pavement Marking Plans	_____	<u>  X  </u>
b. Signalized Intersections	_____	<u>  X  </u>
c. Traffic Control Plan (See Section D.9.)	_____	<u>  X  </u>



	<u>Thornton</u>	<u>Consultant</u>
7. Roadside Planning		
a. Landscaping	<u>      </u>	<u>  X  </u>
8. Traffic Control Plan	<u>      </u>	<u>  X  </u>
9. Plan Preparation for _____	<u>  X  </u>	
10. Final Office Review	<u>  X  </u>	<u>  X  </u>
11. Bid Plan and Construction Plan Packages	<u>  X  </u>	<u>  X  </u>
 E. Corridor Management Support/Value Engineering	<u>  X  </u>	<u>  X  </u>
 F. Bid Phase Services	<u>  X  </u>	<u>  X  </u>
 G. Potential Additional Services	<u>  X  </u>	<u>  X  </u>

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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>  N/A  </u>
A.7	Permissions to Enter (Form 730)	_____	<u>  N/A  </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>  N/A  </u>
B.4.a.	Roadway Conceptual Design Memo	_____	<u>  N/A  </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>  N/A  </u>
B.5.h.(6)	CLOMR	_____	<u>  N/A  </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>  N/A  </u>
B.5.p. Prime Farmlands Report	_____	<u>  N/A  </u>
Permits:		
B.6.a. 404 Nationwide Permit	_____	<u>  X  </u>
B.6.b. SB40 Permit	_____	<u>  N/A  </u>
B.6.c. CDPS Stormwater Permit	_____	<u>  X  </u>
B. Floodplain Permit (Adams County & City of Thornton)	_____	<u>  X  </u>
B.6.f Ditch Crossing License Agreement	_____	<u>  N/A  </u>
C. Preliminary Design:		
C.1. Electronic Survey	_____	<u>  N/A  </u>
• Monument Records	_____	<u>  N/A  </u>
• Control and Monumentation	_____	<u>  N/A  </u>
• Plan Sheets	_____	<u>  N/A  </u>
C.2.j. Traffic Data and Recommendations	_____	<u>  X  </u>
C.3. Geotechnical Report (Including Soils Investigation and Pavement Design)	_____	<u>  N/A  </u>
C.4.c. Preliminary Hydraulics Report	_____	<u>  N/A  </u>
C.5.c. Preliminary Utility Conflict List	_____	<u>  X  </u>

	<u>Thornton</u>	<u>Consultant</u>
C.7.a. Title Commitments	_____	<u>N/A</u>
C.7.b. Preliminary Ownership Map	_____	<u>N/A</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.3. Utility Clearance Letters	<u>X</u>	_____
D.4.d. Final Hydraulics Report	_____	<u>N/A</u>
D.5.a. ROW Authorization Plans	_____	<u>N/A</u>
D.5.b. Final Utility Plan Set	_____	<u>X</u>
Right-of-Way:		
D.6. ROW Plans	_____	<u>X</u>
D.6.b.(5) Legal Descriptions (two [2] Fee Acquisitions and two [2] Temporary Easements)	_____	<u>N/A</u>
Traffic Engineering:		
D.8.a. Signing/Pavement Marking Plans	_____	<u>X</u>
D.8.b. Signalized Intersection Plans	_____	<u>X</u>
Roadside Planning:		
D.9.b. Lighting Plans	_____	<u>N/A</u>
D.11. Traffic Control Plan	_____	<u>X</u>
D.12. FOR Plan Sheets and Special Provisions	_____	<u>X</u>

	<u>Thornton</u>	<u>Consultant</u>
D.12.e. FOR Cost Estimate	_____	<u>  <b>X</b>  </u>
Bid and Construction Plan Packages:		
D.14.a. Post-FOR Revised Plans and Special Provisions	_____	<u>  <b>X</b>  </u>
D.14.b. Final Review Revisions	_____	<u>  <b>X</b>  </u>
D.14.d. Bid Plan and Construction Plan Packages	<u>  <b>X</b>  </u>	<u>  <b>X</b>  </u>
D.14.e. Roadway Design Data Submittal	_____	<u>  <b>N/A</b>  </u>
D.14.g. Record Plan Sets	_____	<u>  <b>X</b>  </u>

## SECTION 9

### AGREEMENT CONCLUSION

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

- Preliminary Design
- Final Design

**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
- Traffic Signal Plans
- Traffic Control Plan(s)
- All Documents Found In Research
- Original Field Notes

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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
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
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
- 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
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 – Eight-two feet (82')
- (3) Use of Spirals - CDOT Design Guide

###### b. Vertical Alignment:

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

###### c. Sight Distance:

- (1) Stopping - 2018 CDOT Design Guide
- (2) Passing - 2018 CDOT Design Guide
- (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
  - (2) Crown Slope - Two percent (2%)
- b. Shoulder:
  - (1) Width - N/A
  - (2) Slope - N/A
  - (3) Paved/Non-paved - N/A
- c. Side Ditches:
  - (1) 2018 CDOT Design Guide
  - (2) 2019 CDOT Drainage Design Manual
- d. Side Slopes:
  - (1) Cut-Less than 4:1
  - (2) CDOT Design Guide
- e. Median:
  - (1) Width - N/A
  - (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

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## ATTACHMENT "C"

### DEFINITIONS

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

<b>MAJOR STRUCTURES-</b>	Bridges and culverts with a total length greater than 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.
<b>MOSS-</b>	Modeling of Surfaces and Strings computer program
<b>MPO-</b>	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
<b>NEPA-</b>	National Environment Policy Act
<b>NGS-</b>	National Geodetic Survey
<b>NICET-</b>	National Institute for Certification in Engineering Technologies
<b>NOAA-</b>	National Oceanic and Atmospheric Administration
<b>PAPER SIZES-</b>	See Computer-Aided Drafting manual (CDOT); Table 6-13 and Table 8-1
<b>PE-</b>	Professional Engineer registered in Colorado
<b>PM-</b>	Program Manager
<b>PLS-</b>	Professional Land Surveyor registered in Colorado
<b>PRT-</b>	Project Review Team
<b>PS &amp; E-</b>	Plans, Specifications and Estimate
<b>PROJECT-</b>	The Work defined by this scope
<b>ROW-</b>	Right-of-Way: A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to a highway.
<b>ROWPR-</b>	Right-of-Way Plan Review
<b>RTD-</b>	Regional Transportation Director
<b>T/E</b>	Threatened and/or Endangered Species

**SH-** State Highway Numbers

**TMOSS-** Terrain Modeling Survey System

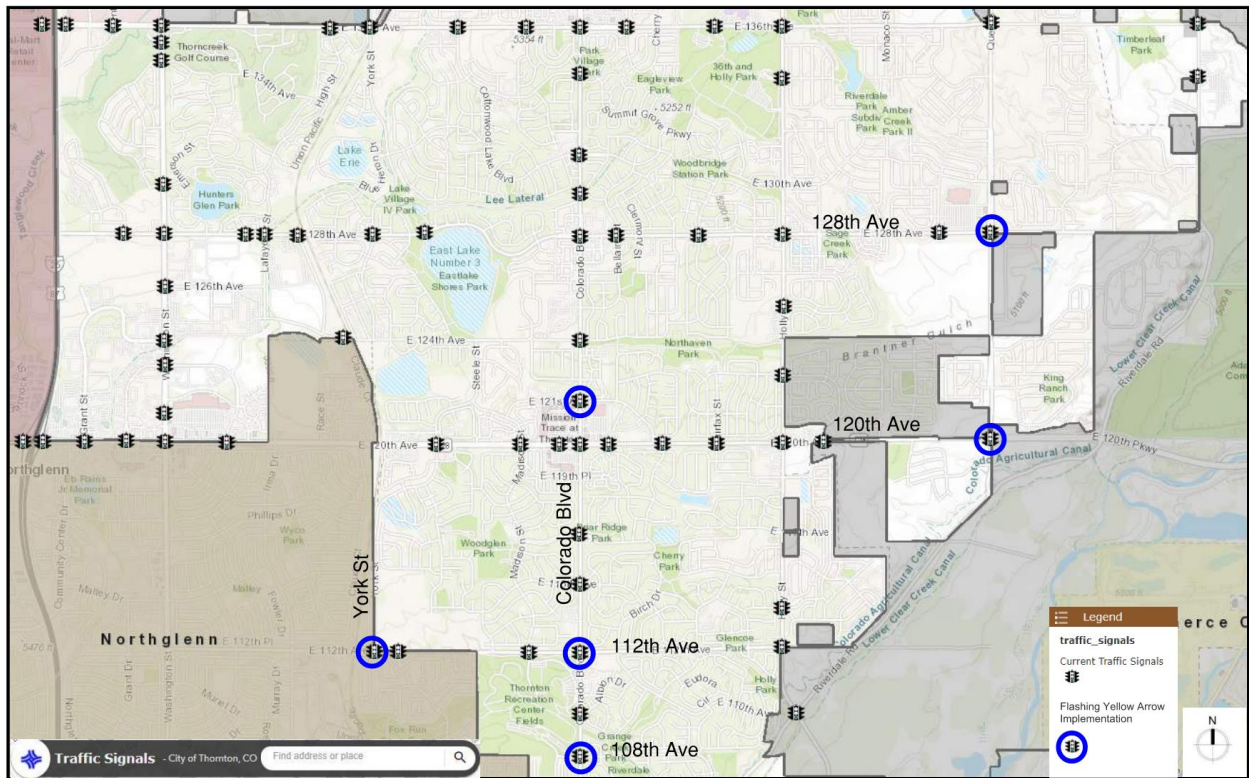
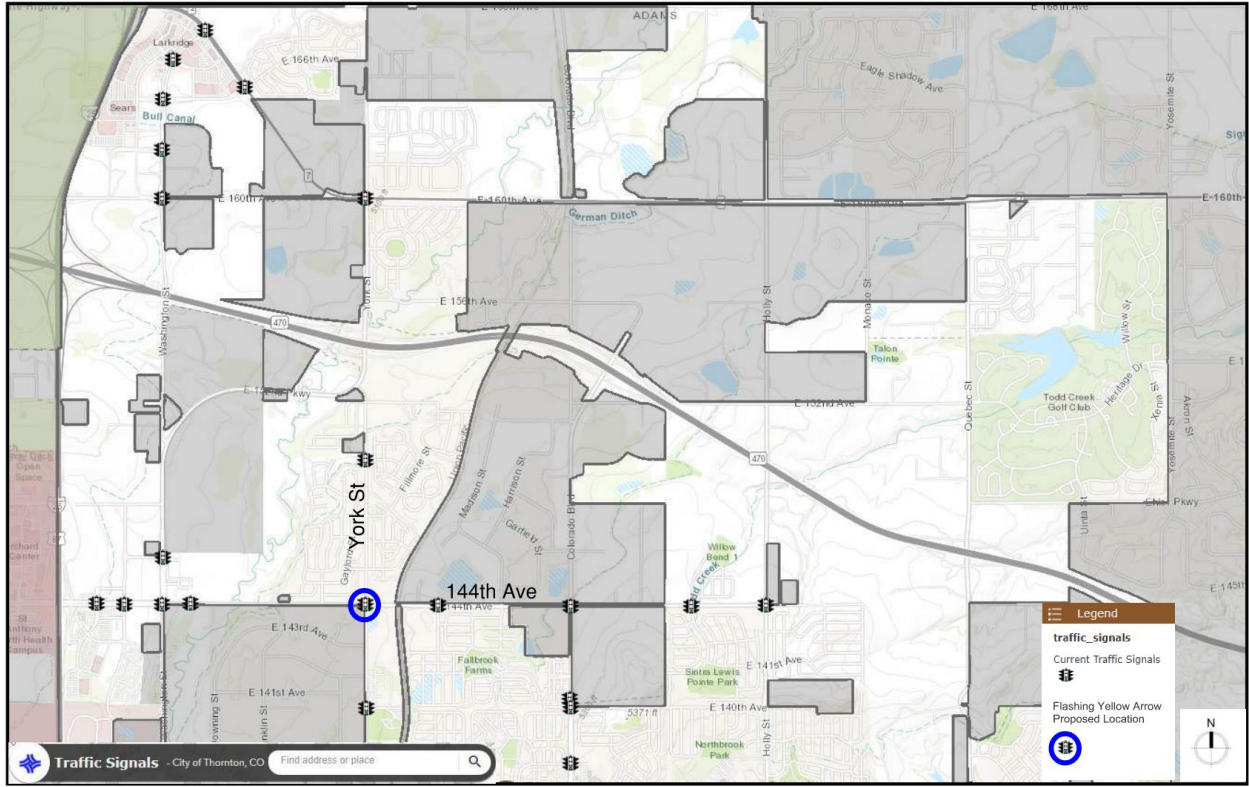
**TOPOGRAPHY-** In the context of CDOT plans, topography normally refers to existing cultural or man-made details.

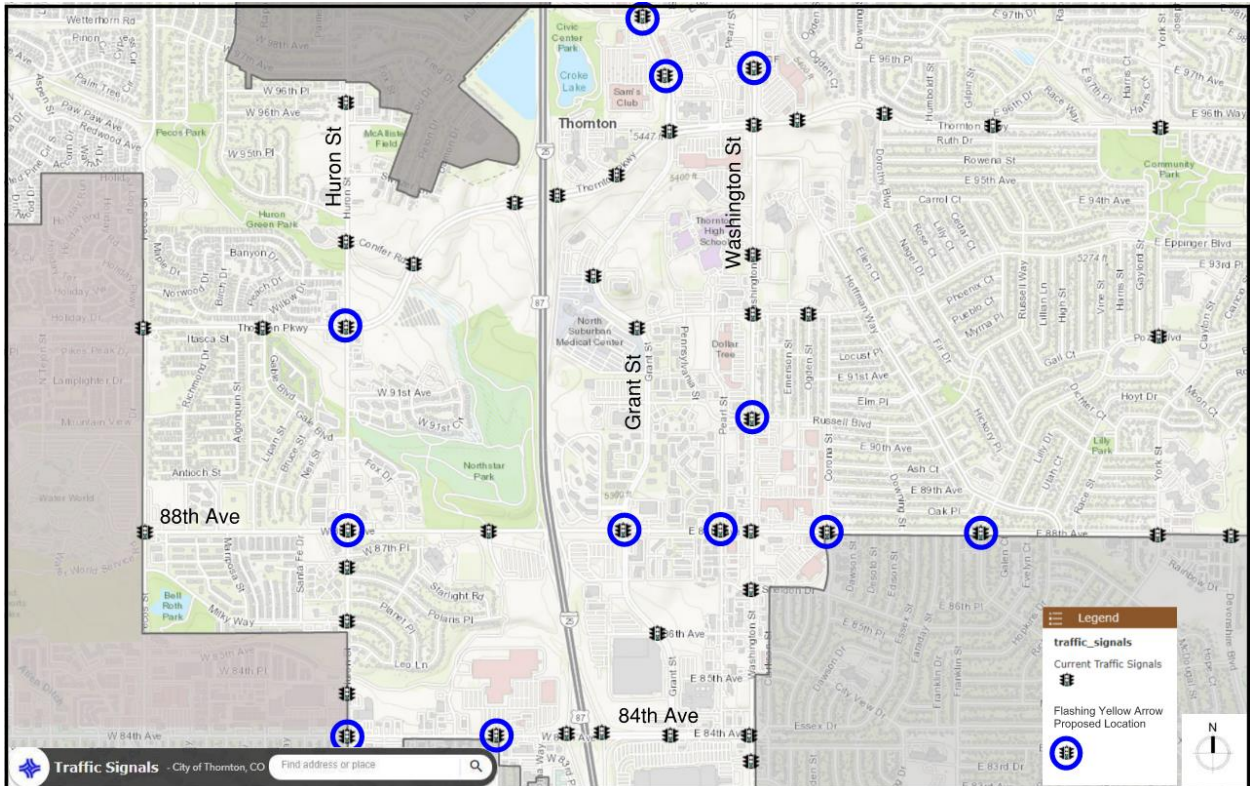
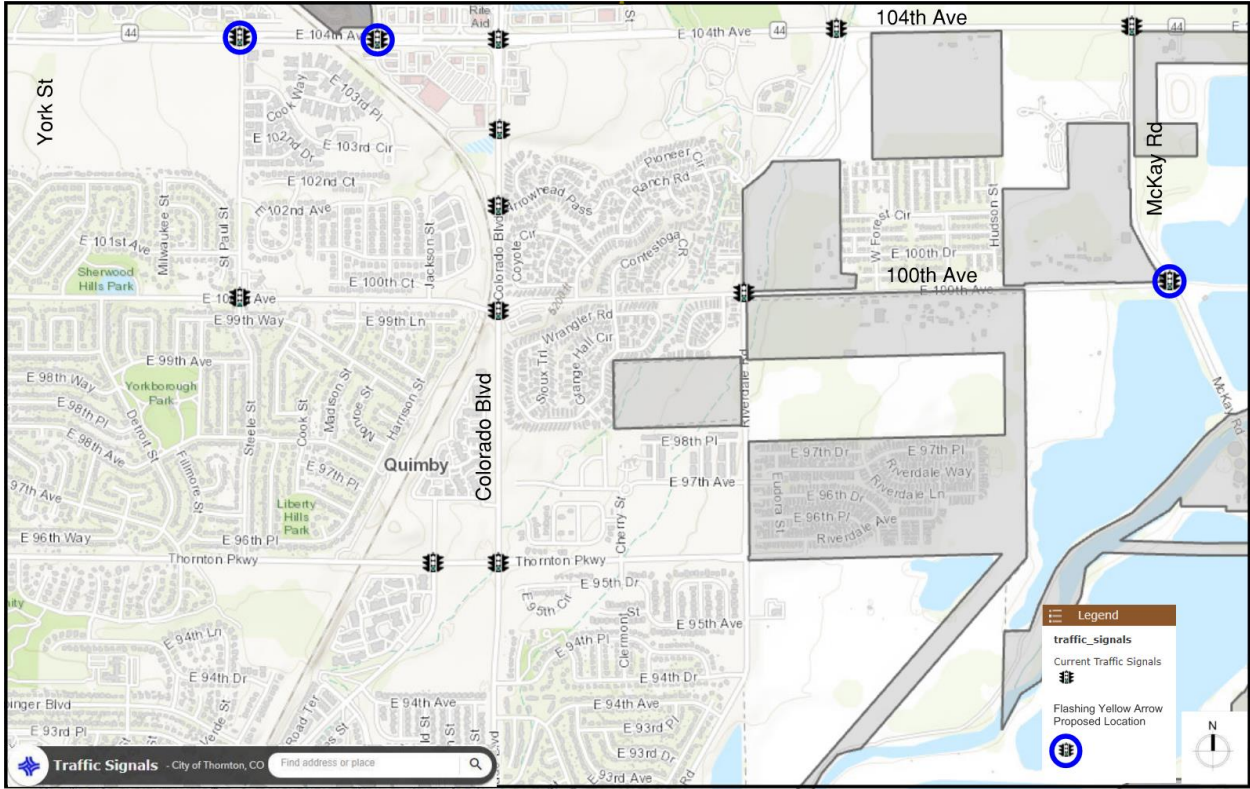
**UDFCD-** Urban Drainage and Flood Control District

**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.**

# ATTACHMENT "D"

## PROJECT DIAGRAM





## **PART 2**

### **PRECONSTRUCTION TASK DESCRIPTIONS**

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##### Description

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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 or Subconsultant 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.
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. 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.
7. 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.

8. Progress Meetings

a. Thornton and C/PM will meet periodically. Meetings shall occur not less than monthly. The anticipated meetings include:

- One (1) meetings during the Project Initiation/Conceptual Design phase.
- Two (2) meetings during the Preliminary Design phase.
- Two (2) meetings during the Final Design phase.
- 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.

9. 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 as 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. Communication Aids:

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

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 records 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 a weed management plan according to CDOT guidelines. Consultant will work with the city 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: (Consultant)

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

e. Water Quality: (Consultant) Addressed in “Preliminary Design” and “Final Design”.

f. Ecological Assessment: (Consultant)

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 records 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 [\$4,400]) will be paid directly to FEMA by the city of 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. 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.

j. 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.

k. Wetland Determination and Wetland Finding: (Consultant)

Consultant will delineate all wetlands and open water in the study area (see Attachment 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.

l. 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 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.

- m. 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) 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 plans 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 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".

2. 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 "Attachment 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.
3. Roadway Design and Roadside Development: (Consultant)
- a. Roadway Design:
 

The Project limits and anticipated roadway improvements to be designed are illustrated in “Attachment 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.

b. Roadside Development:

The Project limits and anticipated trail improvements to be designed are illustrated in "Attachment 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.

4. 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:

- General layouts for proposed fiber optic lines and pull boxes.
- e. The plans shall be submitted to the COT/PM for a preliminary review prior to the FIR.
  - f. 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.
  - g. For federally-funded local agency projects, CDOT Form 1048 is typically completed by the CDOT Local Agency Project Manager. Consultant will assist the city in providing answers to questions CDOT has when completing this form.
5. 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.
6. 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. Final Design**

1. Project Review: (City & Consultant)
  - a. Update Project schedule
  - b. Coordinate activities
  - c. Initiate design decisions, variances, and justification process.
2. Design Coordination (City & Consultant): The design for each aspect of the Project shall be reviewed during periodic meetings and approved by the COT/PM prior to inclusion in the final plans.
3. Utility Coordination: (Consultant, except as noted)
  - a. Utility Potholing (Consultant): Use non-destructive excavation techniques, pothole to determine the exact location of underground utilities critical for design. Potholing of up to fifty (50) utilities is included. Pothole locations will be determined by Consultant at the end of preliminary design. Potholing includes traffic control and permits.
  - b. Utility Plotting (Consultant): To the level of accuracy allowed by the information gathered during preliminary design and the utility pothole data, portray the horizontal and vertical locations of existing utilities on the FOR plans and cross sections.
  - c. Identify Conflicts (Consultant): Based on the utility pothole data, update preliminary conflict list.
  - d. Coordination Meeting (City & Consultant): Conduct a Utility Coordination Meeting. All affected utility companies will be invited to the meeting. The purposes of the meeting will be to:
    - Review conflicts
    - Confirm how the conflicts should be resolved
    - Confirm who is financially responsible for work required to resolve the conflict
    - Confirm which portions of the work will be performed by Utility Company versus Contractor forces
    - Confirm the duration or expected completion date of the utility work and the advance notification time requirements.
  - e. Conduct field reviews with individual utility owners as required. Up to four (4) field meetings are included in this Scope of Work. (Consultant)

- f. Revise plans to reflect input from utility owners at the Utility Coordination Meeting and field reviews. (Consultant)
- g. Prepare Utility Clearance Letters for each utility owner impacted by the Project listing specific utility work elements that the contractor shall perform, specific utility work elements that the utility owner shall perform, the duration or expected completion date of the utility work, and advance notification time requirements. (City)
- h. Submit the letters to the utility companies requesting their signature and return of the letters. (City)
- i. Prepare a utility specification listing all utility owners adjacent to the Project and the provisions of the Utility Clearance Letters. (Consultant)

Design of water lines, sanitary sewer lines, or other utility facilities (except culverts/storm sewers) is not included in this Scope of Work.

- 4. Interim Plans: (Consultant, except as noted)
  - a. Initiate ROW authorization process. Coordinate with COT/PM to initiate the ROW authorization process. Typically, the corrected FIR plans (with final hydraulic design inputs) will be used as the design basis for the ROW authorization plans and ROWPR.
  - b. Final Utility Plans:

Based on the results of the Utility Coordination work outlined in section D.3. above, prepare separate utility plan sheets to illustrate the locations of existing utility facilities and the relocation/adjustment work outlined in the Utility Clearance Letters and Utility Specification. Appropriate pay items will be added to the appropriate quantity tabulations and appropriate specifications will be added.

- 5. Materials Engineering. (Not Applicable)
- 6. Traffic Engineering: (Consultant)
  - a. Traffic Control Plan. See "Traffic Control Plan" below.
- 7. Roadside Planning:
  - a. Landscaping: (Consultant)

Since landscaping within the Project area is planned to be native seeding and sprinkler system work will be limited to notes requiring the Contractor to restore/modify existing sprinklers disturbed by the Project to operating



condition, separate landscaping plans will not be prepared for this Project. Required notes will be added to the Roadway Plans and SWMP, and required Special Provisions will be prepared.

8. Traffic Control Plan: (Consultant)

A final "Suggested Traffic Control Plan will be developed which accommodates the existing traffic movements during construction. The plan will include criteria by which the Contractor must abide when proposing changes to the plan. Anticipated traffic control pay item quantities will be approximated and tabulated. Sheets are anticipated to include:

- Suggested Traffic Control Notes and Tabulations
- Suggested Traffic Control Plans

9. Plan Preparation for the Final Office Review: (Consultant)

a. Coordinate the Packaging of the Plans

- (1) Collect plans from all design elements and collate the plan package.
- (2) The traffic control plan described above shall be included.
- (3) Calculate plan quantities and prepare the tabulations and Summary of Quantities.
- (4) Plan sheet scales will be as listed in Part 2, Section 1.C.4, "Preparation for the FIR".

b. New or revised utility locations shall be added to the plan topography. Conflicts shall be resolved and appropriate pay items/specifications added, to adjust utilities.

c. The Final Office Review (FOR) plans are anticipated to include the following sheets:

- Title Sheet
- Standard Plans List
- Typical Sections
- General Notes
- Summary of Approximate Quantities
- Appropriate Individual Quantity Tabulations
- Miscellaneous Special Details
- Thornton Parkway Roadway Plans
- Utility Plans (as listed in Part 2, Section 1.D.5.b.)
- Storm Water Management Plan
- Erosion Control Plans
- Traffic Control Plans (as listed in Part 2, Section 1.D.8)

**Note: This list may not include all the necessary sheets and may include some subjects not applicable to this particular Project. The content of the plans will be as approved by Thornton.**

- d. In addition to the plan sheets, the Special Provisions shall be provided. This will consist of those unique Project Special Provisions which have to be written specifically for items, details and procedures not adequately covered by CDOT's Standard Specifications and Standard Special Provisions. Also a list of the Standard Special Provisions which are applicable to the Project shall be prepared. The Project Special Provisions shall be provided in the CDOT format and submitted with the Project plans.
- e. Prepare the FOR-level Opinion of Probable Construction Costs. Item numbers, descriptions, units and quantities shall be listed as per CDOT's Item Code Book and submitted to the COT/PM.
- f. Submit the FOR plans and specifications (originals) to the COT/PM for a preliminary review prior to the FOR.
- g. The FOR plans and specifications (up to thirty-five (35) sets – fifteen (15) CDOT, ten (10) Thornton, seven (7) Utilities, three (3) Consultant) will be reproduced by Consultant Reproduction. All FOR plan sets will be produced at 11" x 17" sheet size.

10. Final Office Review (FOR): (City & Consultant)

- a. Attend the FOR.
- b. The FOR meeting minutes shall be prepared by the C/PM, approved by the COT/PM, and distributed as directed.

11. Bid and Construction Plan Packages (City & Consultant)

- a. The FOR original plan sheets and the specifications shall be revised in accordance with the FOR meeting comments and submitted to the COT/PM within four (4) weeks after the FOR. Six (6) sets will be provided to CDOT and three (3) to COT to verify the revisions.
- b. The final review of the plans by Thornton and CDOT may require final revision of the plans and specs which shall be done by the Consultant. One (1) set each will be provided to Thornton and CDOT to verify the final revisions.
- c. The Bid Plan Package (Bid Plan Package issued for advertising) shall consist of the revised FOR plans and will completely describe the work

required to build the Project including, Project dated special provisions and detailed quantities.

- d. Once CDOT issues "Concurrence to Advertise" to Thornton, Consultant will change the issue block to say "Issued for Bidding" and date, then prepare PDF files of the entire Bid Plan Package issued for bidding (one [1] file of the plans and another of the specs) and submit PDFs to city of Thornton. PDF files will be posted on Bidnet by Thornton staff for use by bidders. Paper copies of the Bid Plan Package issued for bidding will not be produced for sale to bidders.

Consultant will submit five (5) paper sets of the Bid Plan Package issued for bidding, three (3) sets for Thornton and two (2) sets for CDOT. No full-size mylar sets will be required.

- e. After bidding is complete, the Consultant shall incorporate any changes to the Bid Plan Package that were made by addenda. After a contractor is selected for award and once the date of the Notice to Proceed is established, the Consultant shall change the issue block to read, "Issued for Construction" and date. This package shall be the Construction Plan Package. The Consultant shall prepare PDF files of the Construction Plan Package and submit to Thornton.
- f. The Consultant shall submit an electronic and hard copy of the following:
  - (1) Roadway
    - Staking
    - Earthwork Quantities
- g. Construction Engineer's action package. The Consultant shall submit two (2) copies, in three-ring binders of the following:
  - (a) All Project calculations or worksheets.
  - (b) All final reports and their approvals: Traffic, hydraulics, lighting, pavement design, etc. All reports will have the latest revisions included.
  - (c) Copies of variances, design decisions, and variance approvals.
  - (d) The FIR and FOR meeting minutes.
  - (e) Utility clearance package, utility agreements and information regarding the utility location and clearance conditions.
  - (f) Environmental clearances, 404, wetlands, endangered species, etc.
  - (h) Any other information unique to this Project and deemed important to the effectiveness of construction.

- h. Record Plan Sets. Two (2) record plan sets for final design of roadways and structures will be produced which shall bear the seal and signature of the responsible Consultant Engineer on each sheet. One (1) set shall be retained by the Consultant for three (3) years following completion of the construction. The other set shall be submitted to Thornton per current Colorado law.
- i. The Consultant's complete submittals shall comply with Part 2, Section 2.

**E. Corridor Management Support / Value Engineering**

- 1. Budget Planning Support: (Consultant, except as noted)
  - a. Maintain a current file of Project cost estimates. The date and type of each estimate will be identified.
  - b. Thornton will maintain a current file of existing and proposed funding for the Project. Types of funding sources will be identified. Thornton will share this information with Consultant for use in item d below.
  - c. Develop a proposed schedule for advertisement for bids (Ad Schedule) based on the estimated costs and the existing and anticipating future funding. The proposed Ad Schedule will be compared to the design schedule. Adjustments to the design and Ad Schedules may be made with Thornton concurrence.
  - d. A periodic (at major milestones and other key decision points) evaluation of cash flow requirements for administrative, preliminary engineering, ROW, utility, and construction costs will be accomplished. The funding requirements will be compared with the budget, on the same periodic basis. Thornton will be notified immediately of changes in funding requirements.
- 2. Value Engineering: A formal value engineering process will not be required for this Project.

**F. Bid Phase Services**

- 1. Attend pre-bid meeting. One (1) representative from the Consultant will attend. Minutes will be prepared by Thornton staff.
- 2. Assist Thornton in answering questions from bidders and preparing design information needed for addenda. Final addenda documents will be prepared and distributed by Thornton staff. Up to eight (8) hours Consultant staff time is included to support Thornton staff in these efforts.

3. All other bidding-related services (advertisements, bid tabulations, recommendation of award, etc.) will be performed by Thornton staff.

**G. 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 are "best estimates" or are "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 Service 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 COT/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 COT/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 COT/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 (1) 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 COT/PM.
2. The sheet size and number of complete Plans Sets for the final submittal shall be as specified by in Part 2, Section 1.D.11 "Bid and Construction Plan Packages" 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 COT/PM. Acceptance of submitted material is the sole responsibility of COT/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 COT/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 COT/PM. Acceptance of submitted material is the sole responsibility of COT/PM.

All Electronic drawing files and plot files shall be submitted as directed by COT/PM.



It is suggested that COT/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. As 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: Thornton 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 COT/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 Thornton determines that the Final Contract Documents are acceptable, the Consultant shall submit the following to Thornton:
  - a. Drawings as listed in Part 2, Section 1.D.11.d. and 1.D.11.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 Thornton's standard front end documents in Word format, Arial font, size 11.5 or 12, 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: TBD**

**THE FINAL PRICE AND COMPENSATION OF THE CONSULTANT SHALL NOT BE DETERMINED DURING THE INITIAL REQUEST FOR PROPOSAL. EXHIBIT C RELATING TO PRICE, HOURLY RATES, COSTS, ETC., SHOULD NOT BE SUBMITTED IN THE INITIAL REQUEST FOR PROPOSAL PHASE. FINAL PRICING SHALL BE FOR THE SCOPE OF WORK PROVIDED IN THIS RFP.**

**REIMBURSABLE EXPENSES:**

Reimbursable expenses include, but are not necessarily limited to, copying, printing, postage, local mileage, out-of-town travel and travel related expenses, courier expenses, owned or rented equipment costs, subconsultant costs, and subcontractor costs, if any.

All categories of reimbursable expenses for which Consultant will expect compensation are listed below. Categories of expenses not listed shall not be reimbursed separately and shall be considered to be included in Consultant’s personnel billable hourly rates, or if a NTE amount was converted to a lump sum fee, to be included in the lump sum fee.

Listed expenses incurred by Consultant from outside vendors such as printers, courier services, rental equipment, subconsultants, or subcontractors will be reimbursed at cost without further mark up. Consultant’s management of outside subconsultants and or subcontractors will be reimbursed at the Billable Hourly Rates for Consultant’s personnel involved in the management and not through a percent fee mark up. Detailed documentation (vendor invoices) must be supplied for an outside expense to be eligible for reimbursement.

Expenses incurred by Consultant from in-house operations, such as in-house printing, copying, Consultant owned equipment, etc., will be reimbursed at the rates indicated below. Detailed unit prices for all in-house expenses for which Consultant will expect compensation are listed below. Vehicle mileage in connection with the performance of the Services will be reimbursed at the rate currently allowable under Colorado State Travel Rule 5-1 for passenger vehicles, and at rates herein defined for specialty vehicles, such as survey trucks.

**REIMBURSABLE EXPENSE CATEGORIES AND RATES:**

In-house Expense Category	UOM	Rate		Outside Expense Category	UOM	Rate
Passenger Vehicle	Mile	90% of IRS		Postage	LS	Cost
Copying ___" x ___" BW				Courier	LS	Cost
Copying ___" x ___" Color				Subconsultants	LS	Cost
Printing ___" x ___" BW				Subcontractors	LS	Cost
Printing ___" x ___" Color				Rental Equipment	LS	Cost
_____ Equipment						

Use additional sheet if necessary

### 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 Professional Consulting Services for the **Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527**, (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. APPENDICES**

### APPENDIX A

- REQUIRED CONTRACT PROVISIONS
- FEDERAL AID CONSTRUCTION CONTRACTS
- CERTIFICATION FOR FEDERAL-AID CONTRACTS
- LOCAL AGENCY PROCEDURES FOR CONSULTANT SERVICES
- ADDITIONAL FEDERAL REQUIREMENTS
- FFATA SUPPLEMENTAL FEDERAL PROVISIONS
- OMB GUIDANCE FOR FEDERAL AWARDS
- FEDERAL TREASURY PROVISIONS
- AGREEMENT WITH SUBRECIPIENT - (PROVIDED UNDER SEPARATE COVER)

### APPENDIX B

- REFERENCE QUESTIONNAIRE PACKAGE INFORMATION AND FORMS

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## **APPENDIX A**

(provided under separate cover)

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## 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 **Flashing Yellow Arrow Signal Modifications, Project No. 23-208, CDOT PROJECT NUMBER SHO M286-056 – SA 25527**. 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: \_\_\_\_\_@\_\_\_\_\_

Please return the completed form no later than \_\_\_\_\_, 2023. If you have any questions, please contact \_\_\_\_\_ via email, or call \_\_\_\_\_. 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		Contract Dollar Value	
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 Firms 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 Firms address stated below via postal mail or email, directly to:

\_\_\_\_\_  
ATTN: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ Email Address: \_\_\_\_\_@\_\_\_\_\_.

Please return the completed form no later than \_\_\_\_\_. If you have any questions, please contact Mr. \_\_\_\_\_ via email, or call \_\_\_\_\_.

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
<b>UNSATISFACTORY</b>	<b>MARGINAL</b>	<b>SATISFACTORY</b>	<b>VERY GOOD</b>	<b>EXCEPTIONAL</b>	<b>NEUTRAL</b>
Performance did not meet most contractual requirements. There were serious problems and the consultant'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 consultant were satisfactory.	Performance met all contract requirements and exceeded some to the government's benefit. There were a few minor problems, which the consultant 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. <sup>1</sup>

<b>The Consultant ...</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1.	The relationship between the proposing firms 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 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 engineers estimate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<b>The Consultant ...</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
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 checked="" 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).