



## INVITATION FOR BID (IFB)

**BID # B16-149 NS**

**“Pikes Peak Improvement Plans – Storm Drain  
and Potable Water”**

FOR  
CITY OF COLORADO SPRINGS

**CITY ENGINEERING**

**PRE-BID CONFERENCE**

**11:00 A.M., November 15, 2016**

**OFFERS DUE:**

**2:00 P.M., November 29, 2016**

**POINT OF CONTACT:**

Nicole Spindler  
Senior Contracts Specialist  
[nspindler@springsgov.com](mailto:nspindler@springsgov.com)

CITY OF COLORADO SPRINGS

SCHEDULE A

**BID FORM**

The undersigned declares that it has carefully examined the bid information and the complete Solicitation, (The term solicitation means the complete invitation for bid) in submitting a bid for “**PIKES PEAK STORM DRAIN AND WATER IMPROVEMENTS**” The Offeror’s signature will be considered the Offeror’s acknowledgment of understanding and ability to comply with all items in this solicitation.

If an Offeror makes any changes or corrections to the bid documents (such as white out, or writing over a figure, etc.) such changes or corrections must be initialed and dated by the person signing the offer prior to its submittal.

**TOTAL BID** will be evaluated and awarded as follows: The City of Colorado Springs intends to award a construction contract to the lowest responsible and responsive bidder as specified in B.18 Basis of Award.

**OFFER  
SCHEDULE 1**

ITEM NO.	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	EXTENDED
1	MOBILIZATION	1	LS		
2	TRAFFIC CONTROL	1	LS		
3	CONSTRUCTION SURVEY	1	LS		
4	TEMPORARY EROSION AND SEDIMENT CONTROL	1	LS		
5	CLEARING AND GRUBBING	1	LS		
6	36-INCH HDPE STORM DRAIN	2450	LF		
7	18-INCH HDPE STORM DRAIN	435	LF		
8	19-INCH x 30-INCH CONCRETE PIPE	170	LF		
9	24-INCH x 38-INCH CONCRETE PIPE	80	LF		
10	TYPE II PIPE BEDDING	985	CY		
11	STORM DRAIN MANHOLE, TYPE 1	12	EA		
12	STORM DRAIN MANHOLE, SQUARE BOX	4	EA		
13	REMOVAL OF STORM DRAIN INLET	7	EA		
14	STORM DRAIN INLET, TYPE D-11A	4	EA		
15	STORM DRAIN INLET, CDOT TYPE R M-604-12	3	EA		
16	PAVEMENT REMOVAL	1990	SY		
17	3-IN ASPHALT PAVEMENT PATCH	1990	SY		
18	12-IN BASE COURSE BACKFILL, CLASS 6	95	CY		
19	SDR-35 PVC 12-INCH SEWER MAIN	360	LF		
20	SEWER MANHOLE	1	EA		
	<b>SUBTOTAL SCHEDULE 1</b>				

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OFFER  
SCHEDULE 2

ITEM NO.	CSU ITEM NO.	DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	EXTENDED
20	100-20000	CONSTRUCTION PHASING/MOT	1	LS		
21	220-00050	REMOVAL OF FIRE HYDRANT	10	EA		
22	220-00210	REMOVAL OF CONCRETE PAVEMENT	2530	SY		
23	220-00220	REMOVAL OF ASPHALT MAT	2530	SY		
24	220-10000	REMOVAL OF WATERLINE (12 INCH AND SMALLER)	127	LF		
25	220-10100	ABANDON WATERLINE (12 INCH AND SMALLER)	4043	LF		
26	400-70001	ASPHALT CONCRETE PAVEMENT (PATCHING)	2530	SY		
27	716-04305	4-INCH CLASS 305 PVC WATERLINE	20	LF		
28	716-06305	6-INCH C900 DR14 PVC WATERLINE	236	LF		
29	716-08305	8-INCH C900 DR14 PVC WATERLINE	1296	LF		
30	716-12305	12-INCH C900 DR14 PVC WATERLINE	2797	LF		
31	717-12009	12-INCH DR 9.0 HDPE WATERLINE	201	LF		
32	731-04012	4-INCH GATE VALVE, 250#	1	EA		
33	731-06012	6-INCH GATE VALVE, 250#	9	EA		
34	731-08012	8-INCH GATE VALVE, 250#	25	EA		
35	731-12012	12-INCH GATE VALVE, 250#	38	EA		
36	741-06000	6-INCH HYDRANT ASSEMBLY (COMPLETE IN PLACE)	10	EA		
38	745-30000	WATER SERVICE LINE (COMPLETE IN PLACE)	10	EA		
39	747-00000	CONCRETE REVERSE ANCHOR (COMPLETE IN PLACE)	16	CY		
40	825-00000	WATER PLANS CONSTRUCTION SURVEYING	1	LS		
<b>SUBTOTAL SCHEDULE 2</b>						

**LOWEST BIDDER WILL BE AWARDED ON TOTAL BID AMOUNT  
TOTAL BID AWARD = SCHEDULE 1 + SCHEDULE 2**

SUBTOTAL SCHEDULE 1 \$ \_\_\_\_\_

SUBTOTAL SCHEDULE 2 \$ \_\_\_\_\_

**TOTAL BID AMOUNT** \$ \_\_\_\_\_

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**Supplemental Bid Notes:**

If awarded the contract, the undersigned hereby agrees to sign said Contract, "Notice of Award" and to complete the work **within (150) calendar days.**

As time is an essential element of the Contract, all work shall be completed within the Contract period. For each calendar day that any work shall remain incomplete after the end of the Contract period, the amounts designated in Section 109.01 of the General Provisions will be assessed, not as a penalty but as a predetermined and agreed liquidated damage.

The undersigned furthermore agrees, if awarded a contract for the work included in this proposal to begin and to complete and to deliver the work contemplated in accordance with the conditions set forth in the Contract Documents.

The undersigned has examined the location of the proposed work, and he/she is familiar with the drawings and the specifications and all Contract Documents related thereto, and the local conditions at the place where the work is to be done.

Bidders must qualify for licenses required before commencing work.

Contractor or Sub-contractor that will be performing water main, hydrant and water service installation shall meet the following requirements: **Provide written proof of compliance with this paragraph with bid. Non-compliance with this requirement will render your bid non responsive.**

1. Contractor shall provide references that verify the successful completion of a minimum of (3) potable water pipeline installations of 1,500 linear feet or longer (each project) within the last 5 years. The projects shall have occurred in a high traffic, urban corridor involving extensive utility conflict resolution and traffic control.
2. Contractor shall provide references that verify the successful completion of a minimum of three (3) potable water pipeline installations of 12" (DIP/PVC) and larger in diameter within the last 5 years.
3. Contractor shall provide references that verify the successful completion of a minimum of three (3) potable water pipeline installations of 12" (HDPE) and larger in diameter within the last 5 years.
4. Contractor's Construction Project Manager shall have a minimum of 5 years experience in potable water pipeline installation.
5. Construction Superintendent(s) shall have a minimum of 5 years experience in potable water pipeline installation.

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BID FORM SIGNATURE PAGE**

By signing in this space, the contractor hereby certifies that this company is not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from bidding/proposing on any federal, state, county or municipal Invitations for Bids or Requests for Proposals.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

THE Contractor hereby Certifies that at the time of this certification, the Contractor does not knowingly employ or contract with an illegal alien and that the contractor has participated or attempted to participate in the basic pilot program in order to verify that the Contractor does not employ any illegal aliens. "Basic pilot program" means the basic pilot employment verification program created in Public Law 208, 104th Congress, as amended, and expanded in Public Law 156, 108th Congress, as amended, that is administered by the United States Department of Homeland Security.

If awarded the contract, the undersigned hereby agrees to sign said Contract, and furnish the necessary bonds within ten (10) days of receipt of the "Notice of Award", of said contract, and to begin work within ten (10) days from the date of receipt of the "Notice to Proceed" and to complete the work within **One Hundred Fifty (150)** Calendar Days.

The undersigned acknowledges and understands the terms, conditions, Specifications and all Requirements contained and/or referenced and is legally authorized by the bidder to make the above bid statements or representations.

\_\_\_\_\_  
(Name of Company)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Date

\_\_\_\_\_  
(City, State and Zip)

\_\_\_\_\_  
(Telephone Number)

\_\_\_\_\_  
(Name typed/Printed)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(email)

**FEDERAL TAX ID #** \_\_\_\_\_

**This Company Is:** Corporation\_\_\_\_ Individual\_\_\_\_ Partnership\_\_\_\_ LLC\_\_\_\_

Offeror acknowledges **submittal of written proof of qualifications** required as listed on page 4 of Schedule A Initial here \_\_\_\_\_

**Offeror hereby acknowledges receipt of the following amendments, if applicable** (Offeror agrees that it is bound by all Amendments identified herein)

AMENDMENT #1\_\_\_\_\_ DATED:\_\_\_\_\_

AMENDMENT #2\_\_\_\_\_ DATED:\_\_\_\_\_

AMENDMENT #3\_\_\_\_\_ DATED:\_\_\_\_\_

**SCHEDULE B**

**INSTRUCTIONS TO BIDDERS**

**GENERAL INFORMATION**

City Contracting no longer maintains a bidders' list. All projects subject to formal competition are posted on Rocky Mountain E Purchasing ([www.rockymountainbidsystem.com](http://www.rockymountainbidsystem.com)) or in the lobby of our office at 30 S. Nevada Ave., Ste. 201, Colorado Springs, CO 80903.

The City of Colorado Springs Contracting now utilizes **Rocky Mountain E Purchasing** which can be accessed [here](#). This system will provide you with convenient access to all bid information for the City of Colorado Springs as well as numerous other local agencies throughout Colorado. To receive email alerts of open bids in your field please register with Rocky Mountain E Purchasing System and complete your online registration. All vendors are encouraged to register in order to access RFP's, IFB's, addenda, and awards.

**B.1 BID ISSUE DATE**

Invitation for Bid (IFB) Number B16-149 NS is being issued and posted on the web-site on **October 25, 2016**. All bid documents; drawings, specifications, and any associated addenda can be accessed Rocky Mountain E Purchasing or [www.rockymountainbidsystem.com](http://www.rockymountainbidsystem.com).

**B.2 PROCUREMENT RULES AND REGULATIONS**

All formal Invitation for Bids (IFB) advertised by the City of Colorado Springs are solicited in accordance with the City's Procurement Rules and Regulations. The City's Procurement Rules and Regulations can be reviewed [here](#). Any discrepancies or conflicting statements, decisions regarding bidding irregularities, clauses or specifications will be rectified utilizing the City's Procurement Rules and Regulations. It is the bidder's responsibility to advise the Contracting Specialist listed in these bidding documents of any potential discrepancies, conflicting statements, clauses or specifications prior to the bid opening date and time.

**B.3 PREPARATION OF BID OFFER**

- B.3.1 Bidders are expected to examine the drawings, specifications, bid documents, proposed contract forms, terms and conditions, and all other instructions and solicitation documents. Bidders are expected to visit the job-site to determine all requirements and conditions that will affect the work. Failure to do so will not relieve a bidder from their responsibility to know what is contained in this invitation for bid, or site conditions affecting the work.
- B.3.2 The bidder certifies that it has checked all of its figures, and understands that the City will not be responsible for any errors or omissions on the part of the bidders in preparing its bid.
- B.3.3 All items, (unless the invitation specifically states otherwise) including any additive or deductive alternates on the bid schedule, **must** be completely filled out or the bid will be determined non-responsive and ineligible for consideration for award.
- B.3.4 The bidder declares that the person or persons signing this bid is/are authorized to sign on behalf of the firm listed and to fully bind the bidder to all the requirements of the solicitation.
- B.3.5 The bidder certifies that no person or firm other than the bidder or as otherwise indicated has any interest whatsoever in this bid/offer or the Contract that may be entered into as a result of this bid/offer and that in all respects the offer is legal and firm, submitted in good faith without collusion or fraud.
- B.3.6 By submitting a bid the bidder certifies that it has complied and will comply with all requirements of local, state, and federal laws, and that no legal requirements have been or will be violated in making or accepting this bid. Bidders are expected to review the City's Procurement Rules and Regulations which will be used when determining a bidder responsive and responsible and awarding contracts in the best interest of the City.
- B.3.7 If there is a discrepancy between the unit price and the total price, the unit price shall be used to determine the applicable total price. Bidders are responsible for including profit and overhead associated with the project when determining their unit prices.

**B.4 EXPLANATIONS TO PROSPECTIVE OFFERORS**

Any prospective bidder desiring an explanation or interpretation of the solicitation documents, drawings, specifications, etc., must request it in writing soon enough to allow a reply to reach all prospective offerors before the time for submission of offers. Oral explanations or instructions given before the opening of bids will not be binding. Any information provided to a prospective bidder during the bid preparation stage will be promptly furnished to all other prospective bidders as an amendment to the solicitation if that information is necessary in submitting bid offers or if the lack of it would be prejudicial to other prospective bidders.

**B.5 QUESTIONS AND OTHER REQUESTS FOR INFORMATION**

All questions shall be submitted in writing to the following specified individual. The preferred method of submitting written questions is via e-mail. All questions must be received no later than 10:00 AM, November 17, 2016.

All questions shall be directed to:

**Nicole Spindler** [nspindler@springsgov.com](mailto:nspindler@springsgov.com)

**B.6 PRE-BID CONFERENCE**

A pre-bid conference is scheduled for 11:00 A.M., November 15, 2016, at the City Contracting Office, 30 South Nevada, Room 201, Colorado Springs, CO. 80903. ***Please note that all visitors to City facilities are required to provide a picture ID in order to gain access to the building.***

B.6.1 This pre-bid conference is not mandatory; however, contractors, suppliers, and vendors are strongly encouraged to attend in order to voice their comments, concerns and/or questions.

**B.7 AMENDMENTS TO THE SOLICITATION**

Amendments are also referred to as addendum or addenda; and these terms shall be considered synonymous. The City of Colorado Springs will post all addenda on the web-site. It is the bidder's responsibility to check the web-site for posted addenda or contact the Contracting Specialist listed in B.5 to confirm the number of Amendments which have been issued.

B.7.1 If this solicitation is amended, then all specifications, terms and conditions, which are not amended, remain unchanged.

B.7.2 Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting a bid offers, or (3) by letter or facsimile.

B.7.3 Acknowledged amendments must be received prior to bid opening. Bidders are encouraged to include signed addenda or initialed acknowledgment with returned bids.

**B.8 BID BOND REQUIREMENTS**

A bid bond in the amount of five (5) percent of the bid amount is required to be submitted with your bid when (1) the total amount of your accumulative bid is more than \$100,000 or (2) is required elsewhere in this solicitation. This Bond must meet the following conditions and shall be submitted using the form in the Exhibits Section of this solicitation.

B.8.1 Bid (offer) Bond

a) The Bidder is required to furnish with their bid a bid bond in the form of a certified check, cashier's check or surety bid bond acceptable to the Contracting Specialist in the sum equal to at least 5% of the total amount of the bid payable without condition to the City of Colorado Springs if; (1) the total amount of your accumulative bid is more than \$100,000 or (2) is required elsewhere in this solicitation.

b) The Bid Bond shall guarantee that the bid will not be withdrawn or modified for a period of sixty calendar days after the time set for the receipt of bid offers, and if accepted within those sixty calendar days, that the person, firm or corporation submitting same shall within ten (10) calendar days after being notified of the acceptance of its bid offer, enter into a Contract and furnish the required bonds and all insurance certificates called for under this invitation for bid.

c) The Bid Bonds of unsuccessful bidders will not be returned to the respective bidders unless a self-addressed stamped envelope is provided along with a written request for bid bond return. However, if a certified check or a cashier's check is submitted in lieu of the Bid Bond, it will be returned as soon as possible after the lowest responsive and responsible bidder is determined and a contract is executed.

d) In the event the bidder whose bid offer is accepted fails to enter into the contract and/or furnish the proper bonds, its certified check, cashier's check or surety bid bond will be forfeited in full to the City.

**B.9 ESTIMATED QUANTITIES**

If the bid schedule herein contains estimated quantities this provision is applicable. The quantities listed for each of the items in the bid schedule are only estimated quantities. Contractors are required to bid a firm unit cost for each item specified. The actual quantities ordered may fluctuate up or down. The unit prices proposed by each bidder will remain firm and will not be re-negotiated if the estimated quantities are not met or are exceeded. This clause will take precedence over any/all other estimated quantity clauses that conflict with this clause.

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For bidding purposes, if there is a conflict between the extended total of an item and the unit price, the unit price shall prevail and be considered as the amount of the bid. All unit prices shall include all necessary overhead and profit. Items not listed in the bid schedule such as overhead, profit, mobilization, de-mobilization, bonding, etc shall be distributed throughout the bidder's unit prices for the items listed in the bid schedule.

**B.10 SALES TAX**

The successful Offeror, if awarded a contract, shall apply to the Colorado Department of Revenue for a tax-exempt certificate for this project. The certificate does not apply to City of Colorado Springs Sales and Use Tax which shall be applicable and should be included in all proposals. The tax exempt project number and the exemption certificate only apply to County, PPRTA (Pikes Peak Rural Transportation Authority), and State taxes when purchasing construction and building materials **to be incorporated into this project**.

Furthermore, the exemption **does not** include or apply to the purchase or rental of equipment, supplies or materials that **do not become a part of the completed project or structure**. In these instances, the purchase or rental is subject to full taxation at the current taxation rate.

The Offeror and all subcontractors shall include in their Offer City of Colorado Springs Sales and Use Tax on the work covered by the offer, and all other applicable taxes.

Forms and instructions can be downloaded at <https://coloradosprings.gov/cat/government/tax-information/sales-tax>. Questions can be directed to the City Sales Tax Division at (719) 385-5903.

Our Registration Numbers are as follows:  
City of Colorado Springs  
Federal I.D.: 84-6000573  
Federal Excise: A-138557  
State Sales Tax: 98-03479

**B.11 IDENTIFICATION OF BID**

Bids must be returned in a sealed envelope; solicitation number and date for submission of offers must be clearly marked on the outside in the lower left hand corner: Any offer that is submitted without being properly marked may be opened for identification prior to the deadline for receipt of offers and then resealed.

**B.12 SUBMISSION OF BIDS**

B.12.1 Bids are to be submitted in a sealed envelope to City Contracting Office, 30 S. Nevada Ave., Suite 201, Colorado Springs CO. 80903.

B.12.2 Date/Time: Bids shall be received on or before: **2:00 P.M., November 29, 2016.**

**B.12.3 BID SUBMITTAL DOCUMENTS:**

**CITY PROJECTS**

The following listed documents must be submitted with your bid in order for your bid submittal to be considered responsive. Use this list as a checklist to make sure all required documents are submitted.

- Schedule A, Bid Form
- Exhibit 1 Bid Bond
- Exhibit 6 Minimum Insurance Requirements
- Exhibit 8 Representations and Certifications
- Acknowledged Addendums if issued

\*\*\*\*\***LATE BIDS WILL NOT BE ACCEPTED**\*\*\*\*\*

**B.13 NUMBER OF COPIES**

Bidder shall submit in its sealed and marked envelope, one (1) copy of its bid, signed in ink, and, if applicable, one (1) original copy of the Bid Bond as defined in B.8.

**B.14 LATE BIDS/LATE MODIFICATIONS OF BIDS**

B.14.1 Bids received in the office designated in B.12 above, after the exact time set for opening are considered "late bids", and will not be accepted by the Bid Opening Official. Bidders are solely responsible for insuring their bids arrive on time and to the place of bids specified in the Invitation for Bid.

B.14.2 The City of Colorado Springs will not consider a late bid or late modification of bid unless:

- (1) There is conclusive evidence that the bid was submitted to the office designated in B.12 above, on time and was mishandled by the City of Colorado Springs ( i.e. lost or misplaced) City Contracting

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- personnel responsible for handling/receiving bids. Mishandling by other units or offices of the City of Colorado Springs does not constitute City Contracting personnel.  
(2) Or – it was the only bid received.

**B.15 MISTAKES IN BIDS - CONFIRMATION OF BID**

When it appears from a review of the bid that a mistake has been made, the bidder may be requested to confirm their bid. Situations in which the confirmation may be requested include obvious, apparent errors on the face of the bid or a bid unreasonably lower than the other bids submitted. All mistakes in bids will be handled in accordance with the City of Colorado Springs Procurement Rules and Regulations.

**B.16 MINOR INFORMALITIES/IRREGULARITIES IN BIDS**

B.16.1 A minor informality or irregularity is one that is merely a matter of form and not of substance. It also pertains to some immaterial defect in a bid or variation of a bid from the exact requirements of the invitation that can be corrected or waived without being prejudicial to other bidders. The defect or variation is considered immaterial when the effect on price, quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the services being acquired.

B.16.2 If the City Procurement Services determines that the bid submitted contains a minor informality or irregularity, then the Manager shall give the bidder an opportunity to cure any deficiency resulting from a minor informality or irregularity in a bid, or waive the deficiency, whichever is to the advantage of the City. In no event will the bidder be allowed to change the bid amount. Examples of minor informalities or irregularities include but are not limited to the following;

B.16.2.1 Bidder fails to sign the Bid, but only if the unsigned bid is accompanied by other material evidence, which indicates the bidder's intention to be bound by the unsigned bid. (such as Bid bond, or signed cover letter which references the bid # and amount of bid).

B.16.2.2 Bidder fails to acknowledge an Amendment - this may be considered a minor informality only if the Amendment, which was not acknowledged, involves only a matter of form or has either no effect or merely a negligible effect on price, quantity, quality, or delivery of the item or services bid upon.

**B.17 REJECTION OF BIDS**

Any bid that fails to conform to the essential requirements of the Invitation for Bids will be rejected.

B.17.1 Any bid that does not conform to the applicable specifications shall be rejected unless the invitation authorizes the submission of alternate bids and the items or services offered as alternates meet the requirements specified in the Invitation for Bids.

B.17.2 A bid shall be rejected when the bidder imposes conditions that would modify requirements of the invitation or limit the bidder's liability to the City, since to allow the bidder to impose such conditions would be prejudicial to other bidders. For example, bids shall be rejected in which the bidder:

B.17.2.1 Protects against future changes in conditions, such as increased costs, if total possible costs to the City cannot be determined.

B.17.2.2 Fails to state a price and indicates that price shall be "price in effect at time delivery".

B.17.2.3 States a price but qualifies it as being subject to "price in effect at time of delivery".

B.17.2.4 Takes exceptions to the Invitation for Bids terms and conditions.

B.17.2.5 Inserts the bidder's terms and conditions.

B.17.2.6 Limits the rights of the City under any contract/invitation for bid clause.

**B.18 BASIS OF AWARD**

The City of Colorado Springs intends to award a contract resulting from this solicitation to the lowest, responsive, responsible bidder, whose offer conforming to the solicitation, will be most advantageous to and in the best interest of the City of Colorado Springs, cost or price and other factors considered.

B.18.1 In addition to other factors, bid/offers will be evaluated on the basis of advantages and disadvantages to the City that might result from offers received.

B.18.2 The City reserves the right to reject any or all proposals and to waive informalities and/or irregularities in the bid offer.

B.18.3 Total bid will be evaluated and awarded as follows: It is the City's intent to award this bid based on the **TOTAL BID FOR ALL ITEMS, split awards will not be made.**

**B.19 PERIOD OF ACCEPTANCE**

The bidder agrees that its bid offer shall remain open for acceptance by the City for a period of sixty (60) calendar days from the date specified in the solicitation for receipt of bids. Additionally the City reserves the right to extend

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any resultant contract or previously approved contract extension for up to six months while products or services are being rebid.

**B.20 BID RESULTS**

The City of Colorado Springs does not mail bid results or tabulations. However, bid tabulations are posted and can be downloaded from the web-site. To request a bid tabulation, email [contracting@springsgov.com](mailto:contracting@springsgov.com).

**B.21 CONTRACT AWARD**

The signature of the bidder indicates that within ten (10) calendar days from acceptance of its bid offer it will execute a contract with the City of Colorado Springs and if indicated in this solicitation, furnish a project specific Certificate of Insurance naming the City of Colorado Springs as Additional Insured, furnish Performance, Labor and Materials, Payment and Maintenance Bonds and any other documents required by the Specifications or Contract Documents.

**B.22 TYPE OF CONTRACT**

It is the intent of this Invitation for Bids (IFB) to award a fixed unit price Contract based on the prices offered by the lowest responsive and responsible bidder. Contract prices shall remain firm and fixed throughout the contract performance period.

**B.23 ADDITIONAL BOND REQUIREMENTS**

**B.23.1 Performance, Labor and Materials Payment, and Maintenance Bonds**

The Contractor shall furnish to the City of Colorado Springs one copy of each; Performance Bond, Labor and Materials Payment Bond, and a Maintenance Bond in the amount of 100% of the total contract within ten (10) calendar days after notification of award of a contract. The cost of all bonds shall be included in Contractor's bid offer.

Bonds shall:

- a) Be for the full amount of the contract price.
- b) Guarantee the Contractor's faithful performance of the work under this contract, and the prompt and full payment for all labor and materials involved therein.
- c) Guarantee protection to the City of Colorado Springs against liens of any kind.
- d) Be, when a surety bond is furnished, from a surety company operating lawfully in the state of Colorado and shall be accompanied with an acceptable "Power-of-Attorney" form attached to each bond copy.
- e) Be issued from a surety company that is acceptable to the City of Colorado Springs.
- f) Be submitted using the forms in the Exhibit section of this solicitation.

**B.24 F.O.B. DESTINATION**

Unless otherwise specified in the invitation for bid, all goods, materials, supplies, equipment or services covered by this solicitation shall be delivered F.O.B. destination, all freight charges prepaid and allowed, within the city limits of the City of Colorado Springs, Colorado, at the location indicated in the awarded contract or purchase order.

**B.25 TERMS, CONDITIONS AND SPECIAL PROVISIONS**

Bidders are advised to pay special attention to Schedules C, Terms and Conditions, and Schedule D, Special Provisions. These schedules may contain requirements that will have an impact on all potential bidders, such as Liquidated Damages, Indemnification, DBE participation, type of contract, and delivery schedule.

**B.26 FISCAL OBLIGATIONS OF CITY**

This Agreement is expressly made subject to the limitations of the Colorado Constitution and Section 7-60 of the Charter of the City of Colorado Springs. Nothing herein shall constitute, nor be deemed to constitute, the creation of a debt or multi-year fiscal obligation or an obligation of future appropriations by the City Council of Colorado Springs, contrary to Article X, § 20, Colo. Const., or any other constitutional, statutory, or charter debt limitation. Notwithstanding any other provision of this Agreement, with respect to any financial obligation of the City which may arise under this Agreement in any fiscal year after the year of execution, in the event the budget or other means of appropriation for any such year fails to provide funds in sufficient amounts to discharge such obligation, such failure (i) shall act to terminate this Agreement at such time as the then-existing and available appropriations are depleted, and (ii) neither such failure nor termination shall constitute a default or breach of this Agreement, including any sub-agreement, attachment, schedule, or exhibit thereto, by the City. As used herein, the term "appropriation" shall mean and include the due adoption of an appropriation ordinance and budget and the approval of a Budget Detail Report (Resource Allocations) which contains an allocation of sufficient funds for the performance of fiscal obligations arising under this Agreement.

**B.27 EQUAL EMPLOYMENT OPPORTUNITY**

B.27.1 In connection with this procurement, the contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, marital status or disability. The contractor will take affirmative action to ensure that all applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, national origin, age, marital status or disability. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

- a) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor; state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, or national origin.
- b) The Contractor will comply with all equal employment opportunity provisions, rules, regulations and executive orders issued by the City of Colorado Springs, State of Colorado and the Secretary of Labor.
- c) The Contractor will furnish all information and reports required by any equal employment opportunity provisions, rules, regulations and executive orders and will permit access to its books, records, and accounts for purposes of investigation to ascertain compliance with such Rules, Regulations, and Orders.
- d) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such Rules, Regulations, or Orders, this contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further City contracts.

**B.28 EMPLOYMENT OF ILLEGAL ALIENS**

- a. The Contractor represents, warrants, and agrees that it (i) has verified that it does not employ any illegal aliens, or (ii) has attempted to verify through participation in the Department of Homeland Security's Basic Pilot Program that the contractor does not employ any illegal aliens. If the contractor has not been accepted into the Basic Pilot Program prior to entering into this Agreement, the Contractor shall apply to participate in the Basic Pilot Program (unless it has been discontinued) every three months after entering this Agreement until the Contractor either is accepted or this Agreement has been completed, whichever is earlier.
- b. Notwithstanding subparagraph (a) of this section of the Agreement, the Contractor shall not use or rely upon the Basic Pilot Program procedure for the purpose of pre-employment screening of job applicants during the performance of the obligations contained in this Agreement.
- c. If at any time prior to or during the performance of the Contractor's obligations contained in this Agreement, the Contractor obtains actual knowledge that a subcontractor performing work under this Agreement for the Contractor knowingly employs or contracts with an illegal alien, the Contractor is required to (i) notify in writing both the subcontractor and the City within three (3) days after obtaining such knowledge that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien, and (ii) terminate the subcontract with the subcontractor if, within the three (3) days following receipt of such notice, the subcontractor does not stop employing or contracting with the illegal alien. The Contractor shall not terminate the contract with the subcontractor if, during the three (3) day period after actual knowledge of employment or contract with the illegal alien, the subcontractor provides information to the Contractor to establish that the subcontractor has not knowingly employed or contracted with an illegal alien. For purposes of this subparagraph only, and without waiving or changing any other Notice Provisions in this Agreement, all notices to the City regarding this subparagraph shall be addressed to the City Contracting Manager, 30 South Nevada Ave., Suite 201, Colorado Springs, CO 80903, with a copy to the Office of the City Attorney, P O Box 1575, Colorado Springs, Colorado 80901-1575.

The Contractor will comply with all reasonable requests made in the course of an investigation under CRS 8-17.5-102 by the Colorado Department of Labor and Employment.

**B.29 PERIOD OF PERFORMANCE**

The contractor shall complete all work within **150 Calendar Days** after the Notice-to-Proceed as per the Specifications and Drawings. The contractor will start work promptly after receipt of the Notice-to-Proceed and continue to work diligently until all work is completed and accepted by the City.

**B.30 NOTICE TO PROCEED**

Work may not start under any awarded contract until a written notice to proceed is issued by the City of Colorado Springs. The City of Colorado Springs may issue the Notice-to-Proceed anytime after the contract is signed and, if required, insurance and bonds have been provided in accordance with B.24.

**B.31 BID DOCUMENTS**

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B.31.1 The following listed documents must be submitted with your bid in order for your bid submittal to be considered responsive. Use this list as a checklist to make sure all required documents are submitted.

**Schedule A, Bid Form**

**Exhibit 1 - Bid Bond**

**Exhibit 6 - Minimum Insurance Requirements**

**Exhibit 8- Representations and Certifications**

**Acknowledged Addendums if issued**

**SCHEDULE C**

**TERMS & CONDITIONS**

RESERVED

SCHEDULE D

GENERAL CONSTRUCTION TERMS AND CONDITIONS

SECTION 100 DEFINITIONS AND TERMS

Titles used in these specifications having a masculine gender, such as “workmen” and the pronouns “he” or “his”, are for the sake of brevity and are intended to refer to persons of any gender.

The titles or headings of the sections and subsections herein are intended for convenience of reference and shall not have any bearing on their interpretation.

When the Contract indicates that something “shall” be done, the action is required and is not discretionary.

Calendar Day Each and every day shown on the calendar, beginning and ending at midnight.

Change Order A written order issued to the Contractor by the City covering contingencies, extra work, increases or decreases in Contract quantities, and additions or alterations to the plans or specifications, within the scope of the Contract, and establishing the basis of payment and time adjustments for the work affected by the changes. The Change Order is the only method authorized for changing the Contract.

City The City of Colorado Springs, Colorado.

Contract Documents Contract Documents include the Request for Proposal, Instructions to Offerors, Proposal, Amendments, the signed Contract, surety bonds, insurance documents, all terms, conditions, and provisions, and the Specifications, including all modifications thereof incorporated in any of the documents before execution of the agreement.

Contract The executed written agreement between the City and the Contractor setting forth the obligations of the parties for the performance of the work and the basis of payment. The Contract includes the Contract Documents, Notice to Proceed, and executed Change Orders, all of which constitute one instrument.

Contractor The person, persons, firm, or corporation to whom a Contract is awarded by the City and who is subject to the terms of said Contract. Contractor shall include the agents, employees, workmen, subcontractors and any assignees of said Contract.

Engineer An engineer of the City of Colorado Springs.

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Notice Any written notice served pursuant to the terms of the Contract. Notice shall be deemed to have been duly served if delivered in person or by registered mail to:

The Project Manager assigned to the Contract, City of Colorado Springs, City Engineering, 30 South Nevada Ave., Room 403, Colorado Springs, CO 80903.

Notice to the Contractor will be to the Authorized Representative of the Contractor at the site of the Project in person; or by registered mail to the Contractor's principal place of business as indicated in the Contractor's proposal certifications; or as to the Surety on the performance bond by registered mail to the Surety at the home office of such surety.

Plans The drawings, or reproductions, provided by the City that show the location, character, dimensions, and details of the work to be done.

Project Manager An individual representing the City responsible for managing and oversight of the Contract.

Project The entire improvement outlined in the Scope of Services which is to be constructed in whole or in part pursuant to the Contract.

Subcontractor A person, firm, or corporation, other than the Contractor, supplying labor or materials, or both, or equipment furnished at the site of the project under an Agreement with the Contractor.

Surety The person, firm, or corporation that has executed as surety the Contractor's Proposal, Performance, Payment and Maintenance Bonds.

Work Work performed under the Contract.

Working Days Days of the week, not including weekends and City holidays, unless otherwise stated.

**SECTION 101 CONTRACT DOCUMENT INTERPRETATION**

**101.00 INTENT OF CONTRACT DOCUMENTS**

The sections of the Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intent of the Contract Documents is to include the cost of all labor and materials, water, fuel, tools, plants, equipment, light, transportation, and all other expenses as may be necessary for the proper execution of the work. If the Contract Documents should be contradictory in any part, the order of precedence shall be as described in the Contract.

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Any work shown on the Plans and not covered in the specifications, or included in the Specifications and not shown on the Plans, shall be executed by the Contractor as though shown both on the Plans and included in the Specifications.

If the Contractor, in the course of the work, finds any discrepancy between the Plans and the physical layout, or any errors or omissions in Plans or layout, he shall immediately so inform the Project Manager and the Project Manager will promptly verify them. Any work done after such discovery without written consent of the Project Manager authorizing the same shall be done at the Contractor's risk and sole expense.

Any incidental and/or appurtenant items not specifically called for in the Plans and Specifications, but which are necessary to complete the work in accordance with the requirements of good practice, as determined by the Project Manager, shall be included as a part of the Contractor's proposal price and furnished at no additional cost to the City.

In interpreting the Contract Documents, words describing materials or work which have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract documents, shall be constructed in accordance with such well known meaning recognized by architects, engineers, and the trade.

**101.01 SPECIAL PROVISIONS, SPECIAL SPECIFICATIONS**

Special Provisions or Special Specifications may be written to expand upon, modify or cancel these general provisions or the standard specifications.

**101.02 STANDARD MANUFACTURER**

Wherever the terms "standard", "recognized" or "reputable" manufacturers are used, they shall be construed as meaning manufacturers who have been engaged in the business of fabricating materials, equipment, or supplies of the nature called for by the Specifications for a reasonable period of time prior to the date set for submission of proposals, and who can demonstrate to the satisfaction of the City that said manufacturer has successfully installed equipment, materials, or supplies of the type proposed to be furnished in at least three instances and that the performance of such materials, equipment, or supplies for a period of over twelve months prior to the date fixed for submission of proposals shall, prima facie, be deemed to have been engaged in such business for a reasonable length of time.

**101.03 "OR EQUAL" CLAUSE**

Whenever in any section of the Contract documents, any article, material, or equipment is defined by describing a proprietary product, or by using the name of manufacturer or vendor, the term "or equal" if not inserted, shall not be construed in such a manner as to exclude manufacturers' products of comparable quality, design, and efficiency, subject to review and approval by the Project Manager. The Project Manager may require that proposed equals be submitted for review and approval.

**SECTION 102 COMPLIANCE WITH LAWS**

**102.00 PUBLIC IMPROVEMENT ASSESSMENT**

If the cost of the improvement to be constructed under the Contract is to be assessed upon the owners of land benefited by such improvement, upon complaint of any such landowner that the improvement is not being constructed in accordance with the Contract, the City Council may consider the complaint and make such order in the premises as shall be just to ensure compliance with the Contract.

**102.01 ALL LEGAL PROVISIONS INCLUDED**

It is the intention and agreement of the parties to this Contract that all legal provisions of law required to be inserted, shall be and are inserted. However, if by mistake or otherwise, some such provision is not inserted, or is not inserted in proper form, then upon application of either party, the Contract shall be amended so as to strictly comply with the law and without prejudice to the rights of either party.

**102.02 LICENSES AND PERMITS**

It shall be the responsibility of the Contractor to obtain, at its expense, all necessary licenses and permits to do the Project, in accordance with applicable Federal, State and local laws, regulations and ordinances. Typical permits and fees include, but are not limited to, Excavation/Boring Permits, Concrete Construction Permits, Fugitive Dust Permits, Regional Building Permits, Pavement Degradation fees, as well as Traffic Control and Barricade Plans to be approved by the City Traffic Division for all work within public rights-of-way and easements i.e. (curb and gutter, sidewalks, pedestrian ramps and cross pans).

**SECTION 103 AWARD AND EXECUTION OF CONTRACT****103.00 CONTRACT EXECUTED**

A single original Contract to include the Contractor's Performance, Labor and Material Payment and Maintenance Bonds may be executed and maintained in the official Contract file located in the City Contracts office. The original copy of the Contract maintained in the City Procurement Services file shall take precedence for purposes of interpretation or determining what the Contract says. After all required signatures are obtained; photocopy counterparts (copies) will be made and distributed to the following, as applicable:

- (a) Contractor
- (b) Project Manager
- (c) City Finance Department
- (d) Inspector

Each Bond shall have an original Power of Attorney attached. The Contractor shall provide compensation insurance and public liability and property damage insurance as outlined in the Contract. The costs of executing the bonds, Contract, and insurance, including all notaries' fees and expense, are to be paid by the Contractor to whom the Contract is awarded. Bonds shall be furnished on forms prepared by the City. Copies of the City's Bond Forms are included in the Exhibits Section of the Request for Proposal, if applicable.

**103.01 VERBAL AGREEMENTS**

No verbal agreements or conversations with any agent or employee of the City either before or after execution of the Contract shall affect or modify any of the terms or obligations contained in any of the documents comprising the Contract.

**103.02 CONTRACT SECURITY**

The Contractor shall furnish good and sufficient Performance, Labor and Material Payment and Maintenance Bonds on the form attached hereto in an amount not less than the full amount of the Contract price as security for the faithful performance of the Contract, for the payment of all persons performing labor and furnishing material in connection with the work, and for all guarantees of materials and workmanship required in the Contract. If at any time during the continuance of the Contract a surety on the Contractor's bond or bonds becomes irresponsible, as determined in the City's sole and absolute discretion, the City shall have the right to require additional and sufficient sureties which the Contractor shall furnish within ten (10) days after written notice to do so. Any additional surety bonds shall cover the entire original Contract amount and any increases thereto.

**103.03 INDEPENDENT CONTRACTOR**

In the performance of the Contractor's obligations under this Contract, it is understood, acknowledged and agreed between the parties that the Contractor is at all times acting and performing as an Independent Contractor, and the City shall neither have nor exercise any control or direction over the manner and means by which the Contractor performs the Contractor's obligations under this Contract, except as otherwise stated within the Contract terms. The City shall not provide any direction to the Contractor on the work necessary to complete the Project. Contractor understands that it is an independent contractor responsible for knowing how to perform all work or tasks necessary to complete Project. The Contractor understands and agrees that the Contractor and the Contractor's employees, agents, servants, or other personnel are not City employees. The Contractor shall be solely responsible for payment of salaries, wages, payroll taxes, unemployment benefits or any other form of compensation or benefit to the Contractor or any of the Contractor's employees, agents, servants or other personnel performing services or work under this Contract, whether it be of a direct or indirect nature. Further in that regard, it is expressly understood and agreed that for such purposes neither the Contractor nor the Contractor's employees, agents, servants or other personnel shall be entitled to any City payroll, insurance, unemployment, worker's compensation, retirement or any other benefits whatsoever.

**SECTION 104 THE CONTRACT: FOLLOWING EXECUTION****104.00 MATERIALS**

Unless otherwise stipulated in the Contract, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light power, transportation, and other facilities necessary for the execution and completion of the work. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

**104.01 SCHEDULE**

In the event of contradictions or inconsistencies, this clause shall take precedence over any language relevant to scheduling included anywhere else in this Contract.

The Contractor shall be responsible for planning, scheduling, and reporting the progress of the work to ensure timely completion of the work as called for in the Contract Documents. The Contractor shall prepare a detailed Project schedule ("Project Schedule") that shall be used for coordination, for evaluation of progress, and for the evaluation of changes to the Contract. The Project Schedule shall include all activities, including those of subcontractors, Contractor's engineers and surveyors, and suppliers. Seasonal and weather constraints, utility coordination, railroad restrictions, right of way restrictions, traffic constraints, environmental constraints, other project interfaces, expected job learning curves and other constraints shall be considered when preparing the Project Schedule, including any phasing or sequencing of the work specified in the Contract Documents. Days scheduled as no work days shall be indicated. The Project Schedule shall consist of a Methods Statement as defined in subsection (a) below and a progress schedule consisting of (1) a Critical Path Method ("CPM") schedule as defined in subsection (b) below, or (2) a Bar Chart schedule as defined in subsection (c) below. A CPM Schedule shall be required if the Contract exceeds \$250,000 or if the construction period exceeds 150 Calendar Days, unless the Contract Documents stipulate otherwise. The CPM Schedule shall utilize Primavera's Suretrak Project Manager software (or other software designated by the Project Manager), or be capable of being read and manipulated by Suretrak Project Manager software (or other software designated by the Project Manager). The Project Schedule shall show all work completed within the Contract Period of Performance. The City reserves the right to approve or disapprove any proposed schedule. If disapproved, the Contractor must make requested changes and resubmit the schedule for approval within five working days of the disapproval by the City.

After award, the Contractor shall submit two copies of all required schedule information as described below. Schedules, schedule updates, diagrams and reports using CPM shall also be submitted electronically in the appropriate software format. All schedules, diagrams, and reports shall include a title, project number, date of preparation, and the name of the Contractor.

The Bar Chart or CPM 90-day schedule shall be submitted at least 14 Calendar Days prior to the start of the work. The Project Manager's review will not exceed five working days. Work shall not begin until the Project Schedule is accepted in writing, unless otherwise approved by the Project Manager.

(a) Methods Statement. A Methods Statement shall be prepared for the prominent features listed in the Contract Documents, and for any feature not listed in the Contract Documents that the Contractor considers a controlling factor for timely completion. The Methods Statement shall be a detailed narrative describing each feature and all work necessary to complete the feature. The Methods Statement shall be submitted with the Contractor's schedule. The following format is required:

1. Feature: Name of the feature;
2. Responsibility: Contractor, subcontractor, supplier, utility, etc. responsible for the feature;

3. Procedures: Procedures to be used to complete the work. The procedure to be used shall include general information regarding methods such as forming, excavation, pouring, heating and curing, backfill and embankment, trenching, protecting the work, etc. When separate or different procedures are to be employed by the Contractor due to seasonal or Project phasing requirements, such differing procedures shall be described in the procedure statement;
4. Production Rates: The planned quantity of work per day for each feature;
5. Labor Force: The labor force planned to do the work;
6. Equipment: The number, types, and capacities of equipment planned to do the work;
7. Work Times: The planned time for the work to include:
  - (a) number of work days per week
  - (b) number of shifts per day
  - (c) number of hours per shift

At the Project Manager's request, the Contractor shall update the Methods Statement, or any part thereof, and submit it with the Job Progress Narrative Report or Schedule Update, whichever is earlier.

- (b) Critical Path Method. CPM is a scheduling method which shows the interdependencies between work activities. The critical path is that path through the schedule which, if delayed, will cause a delay to project completion.

The progress schedule shall include as a minimum the prominent features of this Project as listed in the Contract Documents. The progress schedule shall include all activities for all work on the Project, including subcontracted work, delivery dates for critical material, submittal and review periods, milestone requirements and no work periods. Where the Project has specific phases, each phase shall be described separately for each applicable prominent feature.

Construction activity duration shall not exceed 15 Calendar Days unless approved by the Project Manager. Series of activities that have aggregate durations of five Calendar Days or less may be grouped in a single activity. For example, "form, reinforce, and pour pier" could be defined as a single activity rather than three. Single activities or a series of grouped activities of at least one Calendar Day duration may also need to be included in the Project Schedule as determined by the Project Manager (e.g. same activities but noted separately by location).

Time Scaled Logic Diagram: This diagram shall show the logical progression of all activities required to complete the work defined in the Contract Documents. Activity information shall include activity ID, description, duration, early start and finish dates, late start and finish dates, total float, and responsibility.

1. 90-Day Schedule. The 90-Day Schedule shall provide all necessary detail for procurement, construction and submittal activities required during the first 90 days of

the Period of Performance. This submittal shall include a Time Scaled Logic Diagram.

2. Project Schedule, as described above.

The Project Schedule shall cover the entire Period of Performance.

3. Schedule Updates. The Contractor shall update the 90-Day Schedule or the Project Schedule to reflect actual construction progress of all work activities on the project. Updates shall show the previous 30 days progress and a 60-day projection for all work started, completed, or in progress during this three month window.

The Project Schedule shall be updated as of the cutoff date for the monthly progress pay estimate and submitted to the Project Manager before the payment of the progress pay estimate is approved.

Each of the diagrams, charts, and reports shall comply with the requirements for the Project Schedule above, except that they shall also include the actual completion dates and percentages of completion for the appropriate activities.

(c) Bar Chart. The Bar Chart shall be time scaled and shall show the following:

1. The prominent features, as listed in the Contract Documents.
2. Any feature not listed in the Contract Documents that the Contractor considers a controlling factor for timely completion.
3. The number of days required to complete each feature and its relationship in time to other features.
4. Sufficient space for each feature to permit two additional plots parallel to the original time span plot.
5. The anticipated delivery dates for equipment or materials in any feature that could affect timely completion of the project.
6. Critical completion dates for any activity within any feature that could affect timely completion of the project.
7. Connecting lines between features that show the intended progression of activities.

The Project Schedule shall cover the time from the Day of Notice to Proceed to the predicted completion date. The Project Schedule shall be updated as of the cutoff date for the monthly progress pay estimate and submitted to the Project Manager before the payment of the progress pay estimate is approved. The Contractor shall provide a copy of the original bar chart showing, for each feature, the days actually worked and the anticipated days required to complete.

(d) Project Coordination. The Contractor shall coordinate and schedule its work to include anticipated utility work. Various City and private utility entities may be working to install

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and/or inspect their utilities within the Project area. Reasonable delays should be expected for utility lowering, relocations and placement. These delays shall not be reason for granting any monetary change or performance time alteration to the Contract. As a minimum, the Contractor's Project Schedule shall reflect coordination with the following:

1. City of Colorado Springs City Engineering Division
2. City of Colorado Springs Traffic Engineering Division
3. Colorado Springs Utilities (water, wastewater, gas, electric)
4. City of Colorado Springs Parks, Recreation and Cultural Services Department
5. Private Utility and Telecommunication Companies

(e) Contractor Early Finish or Voluntary Acceleration. Early finish or voluntary acceleration of the schedule by the Contractor is acceptable provided:

1. At the time the Contractor submits the Project Schedule indicating an early finish or voluntary acceleration, the City is notified in writing of actions on the City's part necessary to accommodate the change(s).
2. The City agrees to such change(s) in writing.
3. The City is compensated by the Contractor for any inconvenience or expense associated with the change(s).
4. There is no increase to Contract cost.

A Job Progress Narrative Report shall be submitted bi-weekly as a minimum and with all Project Schedule updates. It shall detail the description of job progress, problem areas, current and anticipated delaying factors and their anticipated effects, impacts to job milestones or Project completion, any corrective action proposed or taken, and any minor revisions to the Project Schedule. If the Job Progress Narrative Report indicates problem areas and impacts to job milestones or Project completion, a revised Project Schedule shall also be submitted as specified below.

Revision of the Project Schedule may be required, as determined by the Project Manager, for: a major revision in the schedule logic or methods of construction; the addition, deletion, or revision of activities required by Contract modification; delays in milestones or the completion of the Project; or for prosecution of work that revises the phasing or staging which is represented on the plans or on the progress schedule. If in the opinion of the Project Manager, the Contractor falls behind the approved Project Schedule, the Contractor shall take steps necessary to improve Project progress, including those steps that may be required by the Project Manager, without additional costs to the City. In those circumstances where the Contractor is behind schedule, the City may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction planned and to submit such changes and revisions to the Project Schedule to the Project Manager for approval that will demonstrate how the approved rate of required progress will be regained.

Failure of the Contractor to comply with the requirements of the Project Manager under this subsection shall be grounds for a determination by the City that the Contractor is not prosecuting the work with sufficient diligence to ensure timely completion of the Contract as required.

If it is determined that a revision to the Project Schedule is required, it shall be provided to the Project Manager for review within 15 Calendar Days of Contractor receiving written notification of the requirement from the Project Manager. The Project Manager's review of the revised schedule will not exceed 5 working days. Revisions required as a result of the Project Manager's review shall be submitted within 5 working days. When accepted by the Project Manager in writing, the revised schedule shall become the Project Schedule.

The Contractor shall participate in the Project Manager's review and evaluation of the submittals. Meetings will be held to review progress and planning when requested by the Project Manager or Contractor. The Project Manager may request additional project scheduling information and documentation as deemed necessary, including reports and other information that may be reasonably generated using CPM software if required by the Contract.

The Contractor shall prosecute the work according to the Project Schedule. The Contractor shall be responsible for assuring that its subcontractors, suppliers, and engineers/surveyors, at any tier, also prosecute the work according to the Project Schedule. The City shall be entitled to rely on the Project Schedule for planning and coordination.

Acceptance of the Contractor's Project Schedule by the Project Manager is not to be construed as relieving the Contractor of obligation to complete the Contract work within the Contract time allowed for the portion of the work or the entire Contract, or granting, rejecting or in any other way acting on the Contractor's request for extension of Contract time, or claims for additional compensation.

All costs relating to preparation, submittal, and acceptance of the Project Schedule, reports and revisions, and all requirements of this subsection will not be paid for separately, but shall be included in the work.

Failure of the Contractor to comply with the requirements of this subsection may be grounds for a determination by the Project Manager that no further progress payments are to be made until the Contractor is in full compliance.

## **104.02 SCHEDULE OF VALUES**

Promptly following the execution of the Contract Documents for all Firm Fixed Price, lump sum Contracts, the Contractor shall prepare and transmit to the Project Manager two copies of an itemized Project cost breakdown showing the unit quantities of each major construction item and the corresponding unit prices. Such unit prices shall contain all costs including profit and overhead of each item complete in place. The total cost of all the items shall equal the Contract price for the Project. This breakdown, once approved by the Project Manager, will be used primarily in determining payment due the Contractor as provided herein. If, in the opinion of the Project Manager, any unit price submitted by the Contractor is unbalanced, a detailed breakdown of the items contained in the unit will be required.

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For Contracts executed on a fixed unit price basis, payment shall be made based on the actual number of units installed or performed that are complete, however, payment shall not exceed the total Contract amount unless previously approved by Change Order.

**104.03 SURVEYS**

Unless otherwise specified in the Contract Documents, the City will furnish all site surveys, easements, pipeline licenses, etc., necessary to authorize construction of any permanent works required in the Contract, where such work is to be done on property other than the City's.

The Project limits of construction shall be within the public right-of-way and/or City easements. The Contractor shall not trespass on premises outside of the limits of construction for this Project, unless permission to do so is granted by the property owner in writing. Copies of any such grant shall be furnished to the City prior to the performance of any work outside the limits of construction.

**104.04 SUBCONTRACTS**

The Contractor will be permitted to subcontract a portion of the Contract; however, the Contractor shall perform work amounting to 30 percent or more of the original total cost of proposal items. Any items designated in the Contract as "specialty items" may be performed by subcontractor. The cost of "specialty items" so performed by subcontractor may be deducted from the original total cost of proposal items before computing the amount of work required to be performed by the Contractor.

The calculation of the percentage of subcontracted work shall be based on the Contract unit prices rather than subcontract unit prices. Proportional value for a subcontracted partial Contract item will be verified by the Project Manager. For the purpose of calculating the value of subcontracted work, the cost of procuring materials and manufactured products can be included in either the Contract or subcontract. However, when a firm both sells material to a Contractor and performs the work of incorporating the materials into the Project, these two phases shall be considered in combination and as constituting a single subcontract.

The Contractor shall as soon as practical after signing the Contract notify the Project Manager in writing, giving the names and qualifications, of all subcontractors proposed to do work on the Project within fifteen (15) business days of notice of award. The City shall have the right to reject subcontractors who are debarred or suspended from doing business with the federal government, State government, or the City of Colorado Springs. The Contractor shall notify the Project Manager of each subcontract he awards, giving:

- (a) Name, address, and telephone number of the subcontractor
- (b) Branch of work covered
- (c) Total price of subcontract
- (d) Date of subcontract

It shall be the responsibility of the Contractor to file with the Project Manager copies of applicable permits and licenses required to do the subcontracted work. Subcontracts or transfer of Contract obligations shall not release the Contractor of liability under the Contract and bonds.

#### **104.05 OTHER CONTRACTS**

The City may undertake or award other Contracts for additional work at or near the site of the work under this Contract. The Contractor shall fully cooperate with the other Contractors and with City employees and shall carefully adapt their scheduling and performance of the work to accommodate the additional work, heeding any direction that may be directed by the Project Manager. The Contractor shall not commit or permit any act, which will interfere with the performance of work by any other contractor.

### **SECTION 105 CONSTRUCTION SITE**

#### **105.00 LANDS TO BE USED FOR WORK**

The Contractor shall confine the work activities to the area shown in the construction drawings. The Project Manager will furnish the Contractor with copies of all executed right of way (ROW) and easement documents for the Project. The established work zone shall be marked and secured with orange safety fence. Any additional work area required within adjoining private properties must be acquired by the Contractor by written permission from the property owner. The Contractor shall restore any damage or disruption to other properties utilized in the performance of this Project to an equal or better than pre-construction condition at no cost to the City. The Contractor shall indemnify and hold the City harmless from any claims or losses from damage or disruption of private property.

Contractor shall provide, at its expense and without liability to the City, any additional land and access thereto that may be required for temporary construction facilities or for storage of materials. All such costs will be considered incidental to the work and will not result in additional cost to the City. Contractor personnel shall not unnecessarily enter upon private property without the express written consent of the landowner. The Contractor shall provide the Project Manager with a copy of the written permission. The Contractor shall indemnify and hold the City harmless from any claims or losses related to Contractor trespassing.

#### **105.01 STORAGE OF MATERIALS**

The Contractor shall confine its equipment, apparatus, the storage of materials and operations of Contractor's workmen to limits indicated by law, ordinances, permits, or directions of the City and shall not encumber the Project site with materials or equipment not necessary for the Project.

#### **105.02 LOADING OF STRUCTURES**

The Contractor shall not load or permit any part of a structure to be loaded with a weight that will endanger the structure's safety. The Contractor shall enforce the Project Manager's instructions regarding signs, advertisements, fires, and smoke.

**105.03 SANITARY PROVISIONS**

The Contractor shall provide and maintain on the construction site at all times suitable sanitary facilities for use of those employed on this Contract without committing any public nuisance. All toilet facilities shall be subject to the approval of the El Paso County Public Health Department. All portable toilet facilities for this Project shall be kept on City or State right-of-way as directed by the Project Manager.

**105.04 ACCIDENT PREVENTION**

The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor shall submit to the City an acceptable, comprehensive Safety Plan for review prior to commencement of the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

- a.) All persons on or about the Site or who may be affected by the Work;
- b.) All Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
- c.) Other property at the site or adjacent thereto, including buildings, real property, trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of the Work.

Notwithstanding the foregoing, the City reserves the right to direct the Contractor to stop work and correct an unsafe condition at any time that any person present at the job site identifies any unsafe condition or action. For this purpose only, any person at the job site is authorized to act on behalf of the City, but such intermittent delay shall not be grounds for an increase in the Contract price or schedule.

Precaution shall be exercised at all times for the protection of persons, including employees, and property. The safety provisions of all Federal, State and Municipal laws and any other codes relating to the public safety, shall be strictly observed, and the Contractor shall, at all times, whether or not so specifically directed by the Project Manager, take the necessary precautions to ensure the protection of the public.

Piling, sheeting and shoring shall be utilized where required to prevent any excessive widening or sloughing of a trench which may be detrimental to human safety, traffic flow, a pipe being placed, trees, or to any existing structure.

Excavated materials shall be placed a safe distance from the sides of the trench. Heavy equipment shall not be used or placed near the sides of a trench unless the trench is adequately braced.

The Contractor shall not load or permit any part of a structure to be loaded with a weight that will endanger the structure's safety.

The Contractor shall designate a qualified and experienced safety representative at the Work site(s) whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety plans and programs.

#### **105.05 PROTECTION OF THE PUBLIC WORKS AND PROPERTY**

The Contractor shall provide and maintain all necessary watchmen, barricades, lights, and warning signs and take all necessary precautions for the protection of the public. The Contractor shall continuously maintain adequate protection of all work from damage, and shall take all reasonable precautions to protect the City's property from injury or loss arising in connection with the Contract. The Contractor shall make good any damage, injury, or loss to their work and to the property of the City resulting from lack of reasonable protective precautions except such as may be due to errors in the Contract Documents, or caused by agents or employees of the City. The Contractor shall check all cautionary signs at least once a day during this Contract.

The Contractor shall continuously maintain adequate protection of all their work from damage and shall protect the City's and adjacent property from injury arising in connection with this Contract.

The Contractor will be responsible for any and all damage to property, public or private, that may be caused by its operations in the performance of this Contract, and the Contractor shall defend any suit that may be brought against itself or the City on account of damage inflicted by its operations, and shall pay any judgments awarded to cover such damage and shall indemnify the City for any losses arising out of such damage or related claims.

The Contractor shall be responsible for the restoration of all existing surface or subsurface improvements damaged as a result of construction at no additional cost to the City.

#### **105.06 PUBLIC ROADS**

The Contractor in executing the work on this Project shall not unnecessarily impede or interfere with traffic on public highways or streets. Detours, including surfacing, guard rails, temporary bridges and culverts, as may be shown on the drawings, or ordered by the Project Manager to accommodate the general public, residents adjacent to the improvements, and the United States mail shall be provided and maintained by the Contractor in a good workmanlike manner. Any call out of City Barricade Crews shall be charged to and paid for by the Contractor.

All work done within the public right-of-way and/or easements requires a Traffic Control Plan approved by the City Traffic Engineering Division.

The Contractor shall provide and maintain in place all barricades, warning signs, lights and other safety devices required to protect the work, divert traffic, and warn pedestrians of open excavation, unfilled trenches, and other areas or conditions which might be hazardous or dangerous. Detour routings must first be submitted to the City Traffic Engineer for review and approval and shall be signed for the entire route of the detour as required to return the traffic to their street or origination. Detours shall be maintained throughout the period of construction in such a manner as to provide the least amount of disruption to normal traffic flow.

All signing and barricading shall conform to the latest editions of the following:

- (a) Manual of Uniform Traffic Control Devices for Street and Highways (MUTCD)
- (b) City of Colorado Springs Traffic Signage and Markings Manual
- (c) City of Colorado Springs Construction Traffic Control Manual

The City Traffic Engineer may require flag persons or off-duty police officers for traffic direction.

#### **105.07 PROTECTION OF EXISTING CURBS, GUTTERS AND DRIVEWAYS**

The Contractor shall exercise care in protecting existing curbs, gutters and driveways. Curbs, gutters and driveways damaged by the Contractor's operations shall be removed and replaced by the Contractor at Contractor's expense.

#### **105.08 PROTECTING AND REMOVING PLANTINGS**

The Contractor shall protect all existing trees, shrubs and other plantings from above ground and root structure damage during the construction activities. Plantings which are considered to be slightly damaged shall be properly pruned and sealed according to accepted nursery practices. Contractor shall be liable for the costs of any unnecessary damage to plants or trees as determined by the Project Manager. Where plantings are in conflict with new work, as determined by the City Forester (plantings in the public right-of-way) or by the inspector or owner (plantings on private property), the Contractor shall at his expense remove the planting. The Contractor shall coordinate with the City Forester prior to working in the vicinity of plantings in the public right of way.

In all cases, the proper planting season shall be observed to assure proper establishment and growth of the plantings.

Tree branches shall be trimmed back to the trunk, all around, to a minimum height of 8' above the adjacent walkway. Work shall be done only by a licensed Tree Service as provided in City Code Chapter 2, Article 3, Part 3.

#### **105.09 PUBLIC CONVENIENCE AND SAFETY**

The Contractor shall make every effort to minimize the inconvenience to property owners and to the traveling and pedestrian public, and shall conduct the Work to minimize obstruction to traffic and inconvenience to property owners affected by the Work.

The Contractor shall notify and coordinate the closing and construction of the driveways, curb, gutter and sidewalks with the Project Manager and the adjoining property owners in advance of Work in writing. The Contractor shall provide 72 hours written notice in advance of any construction that may affect access, parking and/or existing structures, including fences adjacent to that property.

Suitable access and parking will be maintained at all times. Access may be limited to half the existing driveway width for limited periods during concrete driveway and street construction.

An additional verbal notice shall be provided to each business or property owner 30 minutes prior to the actual access drive closure.

Relocating of fences and structures shall be coordinated with property owners and shall include miscellaneous items including, but not limited to, utility services, street signs and mailboxes, sod replacement, sprinkler system modifications, control boxes, railroad tie walls, etc. If no such items are specifically included in the Contract, these items will be considered incidental to the work and are to be included in the unit prices. The Contractor shall coordinate the salvaging of any materials suitable for re-use with the City Inspector and, if on private property, with the respective property owners.

Any restrictions on street parking or traffic movement shall be coordinated with the City Traffic Engineer.

#### **105.10 FAILURE TO MAINTAIN SAFE SITE**

If the City becomes aware of failure to comply with applicable safety regulations, the Project Manager may inform the Contractor who shall take immediate steps to remedy the noncompliance. The Project Manager shall give written notification to the Contractor directing it to correct the unsafe acts or conditions. If the Contractor fails to comply with such a notification, the Project Manager may issue a Stop Work order in accordance with this Contract, and work shall only be resumed after adequate corrective actions have been taken to correct the safety deficiencies the Contractor has been notified of. Stoppage of work because of noncompliance with prescribed accident precaution measures shall not be considered a changed condition or changes in work, nor reason for extension of completion time.

In case of injury to persons or property by reason of failure to erect and to maintain necessary barricades, safeguards, and signals, or by reason of any act or omission of the Contractor, or Contractor's subcontractors, agents, or employees, during the performance of this Contract, the City may withhold payments due the Contractor so long as shall be reasonably necessary to indemnify the City on account of any such injuries, but the City's payment or failure to pay any sum shall not be considered a waiver of its right to indemnity under the this Contract.

#### **105.11 EROSION AND DRAINAGE CONTROL**

Contractor shall provide for the drainage of stormwater and such water as may be applied or discharged on the site in performance of the work per the latest revision of the City of Colorado Springs Drainage Criteria Manual, Volume II. Drainage facilities shall be adequate to prevent damage to the work, the site, and adjacent property.

The Contractor shall prevent the pollution of drains and watercourses by sanitary waste, sediment, debris or other substances resulting from this work. Contractor shall be required to clean up and isolate such materials on a continuing basis to prevent risk of washing into such drainage ways.

Should the affected areas of the Project exceed one acre, a Stormwater Discharge Permit shall be required. Affected area includes excavations, material stockpiles and areas where equipment and vehicles disturb the ground. An exact definition of the affected area should be obtained from the Colorado Department of Public Health and Environment (CDPHE).

**105.12 POLLUTION**

The Contractor shall at all times ensure compliance with applicable Federal, State, and Municipal air, water, and noise pollution laws and ordinances. The Contractor shall at all times have the proper sprinkling equipment available and shall apply water in the amount determined by each site condition or as directed by the Project Manager. The Contractor shall obtain all necessary permits at Contractor's expense, which may include, but not be limited to, El Paso County or a State Air Emission permit, State of Colorado Construction Activity permit, State of Colorado Dewatering permit and Section 404 Corp of Engineers permit, unless otherwise specified in the RFP.

**105.13 TEMPORARY CONSTRUCTION**

All temporary facilities, including the Contractor's field office which it may maintain at the site, and additional offices erected by subcontractors, shall be neatly constructed and arranged on the site in an orderly manner. The Contractor shall prepare and submit to the Project Manager, for approval prior to starting work, a construction plan layout, showing arrangement of storage areas, temporary buildings, equipment, and work areas. The Contractor shall provide suitable weather-tight storage sheds of capacity required to contain all materials which might be damaged by storage in the open. The Contractor shall at all times keep copies of all Contract Documents readily accessible at its office at the site.

**105.14 TEMPORARY WATER SUPPLY**

The Contractor shall provide, at Contractor's own expense, temporary water connections and water supply necessary for the prosecution of the work and permit all contractors on the work to use this supply at a reasonable prorated charge, or by sub-metering. The Contractor shall pay for all water consumed in the work, and shall arrange with Colorado Springs Utilities for temporary connections and payment of service charges. Upon completion of the Contract work, all temporary waterlines shall be removed. The City will devise a method and plan to monitor and enforce the proper use of temporary water. The City will inspect for compliance.

**105.15 TEMPORARY ELECTRICITY**

The Contractor shall arrange with the Colorado Springs Utilities for temporary electricity necessary for the prosecution of the work. The Contractor shall pay for all electric current consumed, and shall permit all contractors on the work to use this supply at a reasonable prorated charge, or by sub-metering.

**105.16 TEMPORARY HEAT**

The Contractor shall provide adequate, temporary heat required during construction. Until the building or work area is enclosed, heavy tarpaulin shall be used to enclose any space requiring heating or protection from weather during construction operations. After the heating plant is in operating condition and the building is enclosed, heat may be provided from the permanent heating plant if such is approved by the Project Manager. In such case, the Contractor shall arrange to operate the plant, connect permanent or temporary radiation or unit heaters, and so maintain the plant during operation that it will be turned over to the City undamaged at the completion of the work. The Contractor shall provide all fuel required. In no case shall salamander heating be used in finished or plastered surfaces; instead, gas-steam radiators, unit heaters, or other suitable and approved means shall be used if the permanent heating

plant is not available. This applies only to structures. It does not apply to road improvements or other outdoor improvements.

### **105.17 TEMPORARY ENCLOSURES**

The Contractor shall provide and maintain temporary enclosures for the work as may be required to permit continuation of interior work during inclement weather, if wall and roof construction has progressed sufficiently to make interior work possible. This applies only to structures. It does not apply to road improvements or other outdoor improvements.

### **105.18 CLEAN-UP**

The Contractor shall at all times keep the work area including storage and staging areas, free from accumulations of waste materials. The Contractor is also responsible for any costs associated with cleanup of debris from the work site or storage areas that may inadvertently be scattered outside the area by weather or vandalism. Upon completion of the work, the Contractor shall leave the work area in a clean neat and orderly condition satisfactory to the Project Manager.

## **SECTION 106 ROYALTIES, PATENT INFRINGEMENTS, SPECIAL LICENSES AND PERMITS**

### **106.00 ROYALTIES AND PATENTS**

The Contractor shall pay all applicable royalties and license fees. The Contractor shall defend all suits or claims for infringement of any patent rights and save the City harmless from loss on account thereof except that the City may be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, unless the City has notified the Contractor prior to the signing of the Contract that the particular process, design, or product is patented or is believed to be patented.

## **SECTION 107 WORK PROVISIONS AND RULES**

### **107.00 COMMENCEMENT AND COMPLETION OF WORK**

- (a) Preconstruction Conference. After issuance of Notice to Proceed, or as otherwise established by the City, a preconstruction conference ("Preconstruction Conference") shall be held for review of the construction schedule, Contractor's written list of subcontractors and suppliers, written list of all required permits, project contracts, utility support plan, water control plan, Traffic Control Supervisor name and telephone number, gradations, test results, certifications, review procedures for handling shop drawings and other submittals, processing applications for payment, and other pertinent items.
- (b) At the Preconstruction Conference, the Contractor shall furnish the Project Manager a written list of all permits required for the proper completion of the Contract. The list shall clearly identify the type of permit or permits that must be obtained before work on any particular phase or phases of work can be started.
- (c) The Contractor shall commence work within ten (10) Calendar Days of the date specified on the Notice to Proceed and complete the Contract within the number of

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Calendar Days or by the date specified in the proposal form. Unless otherwise noted in the Contract, the number of days are Calendar Days.

- (d) The dates fixed for commencement and completion of the work may be extended by the Project Manager. All requests for extension of time by the Contractor shall be made in writing to the Project Manager and shall set forth the reasons for such requests. The Project Manager may fix the period of extension, if any. In addition, the Project Manager may grant a period of extension upon an execution of a Change Order. Any Project Manager’s decision on extensions of time shall be binding upon the parties hereto. Requests for extension of time received twenty (20) or more days after the occurrence of the delay will not be honored. No requests for extension of time shall be honored if submitted after the completion date.
- (e) If satisfactory execution and completion of the Contract shall require work or materials in greater amounts or quantities other than those set forth in the Contract, then the Contract time may be adjusted at the time of the execution of the Change Order. No allowance will be made for delays or suspension of the prosecution of the work due to the fault of the Contractor.

**107.01 FAILURE TO COMPLETE WORK ON TIME, LIQUIDATED DAMAGES**

If the Contractor fails to fully perform and complete the work in conformity to the provisions and conditions of the Contract within the specified time limit set forth in the Contract, including any extensions granted hereto, the Contractor may be subject to a stop work order, as provided in this Contract. In addition, the Contractor shall pay to the City for each Calendar Day of delay until such time the Contract is complete, liquidated damages at the applicable daily rate below. The amounts shown are considered to be liquidated damages to reimburse the City for the additional cost of construction engineering and Contract administration services and in no case are considered a penalty.

Original Contract Amount	Amount of Liquidated Damages Per Day
Less than \$50,000	\$300.00
\$50,000 to \$100,000	\$500.00
\$100,000 to \$500,000	\$700.00
\$500,000 to \$1,000,000	\$900.00
Over \$1,000,000	\$1500.00

**107.02 WORK IN BAD WEATHER**

No construction work shall be done during stormy, freezing, or inclement weather, except such as can be done satisfactorily, and in a manner to secure first class construction throughout, and then only subject to permission of the Project Manager.

The granting of a time extension for inclement weather does not imply or guarantee that additional compensation for incidental and appurtenant work caused by such weather will be approved or authorized by the Project Manager. Weather delays that can be reasonably anticipated shall not result in increased cost to the City. The Project Manager will be the sole judge as to the reasonableness of delays for inclement weather.

**107.03 EXCUSABLE DELAYS**

The Contractor's right to proceed will not be terminated, and the Contractor will not be charged with damages, for delays in completing the work that arise from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include:

- (a) Acts of God or of the public enemy,
- (b) Acts of the government in either its sovereign or Contractual capacity,
- (c) Acts of another contractor in the performance of a contract with the government,
- (d) Fires,
- (e) Floods,
- (f) Epidemics,
- (g) Quarantine restrictions,
- (h) Strikes of employees other than Contractor's employees,
- (i) Freight Embargos,
- (j) Unusually severe weather, or
- (k) Delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers.

**107.04 COMPENSATION FOR COMPENSABLE DELAYS**

If the Project Manager determines that a delay is compensable in accordance with the Contract, monetary compensation will be determined in accordance with this subsection.

- (a) These categories represent the only costs that are recoverable by the Contractor. All other costs or categories of costs are not recoverable:
  1. Actual, reasonable wages and benefits, including FICA, paid for additional non-salaried labor;
  2. Reasonable and actual costs for additional bond, insurance and tax;
  3. Increased, reasonable, and actual costs for materials;
  4. Reasonable equipment costs calculated in accordance with the current edition of the Rental Rate Blue Book of Rental Rates for Construction Equipment for Contractor-owned equipment and based on invoice costs for rented equipment;

5. Reasonable and actual costs of extended job site overhead;
  6. Reasonable subcontractor's claims (the same level of detail as specified herein is required for all subcontractors' claims)
  7. An additional 10 percent will be added to the total of items (1), (2), (3), (4), (5), and (6) as compensation for items for which no specific allowance is provided, including profit, overhead, and general and administrative expenses.
- (b) In adjustment for costs as allowed above, the City will have no liability for the following items of damages or expense:
1. Profit in excess of that provided in (a) above;
  2. Loss of profit;
  3. Additional cost of labor inefficiencies in excess of that provided in (a) above;
  4. Home office or other overhead or general and administrative expenses in excess of that provided in (a) above;
  5. Consequential damages, including but not limited to loss of bonding capacity, loss of bidding opportunities, and insolvency;
  6. Indirect costs or expenses of any nature in excess of that provided in (a) above;
  7. Attorney's fees, claim preparation fees, and expert fees.

All costs claimed must be documented and accompanied by a written certification from the Contractor.

#### **107.05 EMERGENCY WORK**

In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor is, without special instructions or authorization from the Project Manager, hereby permitted to act at Contractor's discretion to prevent such threatening loss or injury. Contractor shall also act, without appeal, if so authorized or instructed by the Project Manager. Any reasonable compensation claimed by the Contractor on account of emergency work shall be determined by mutual agreement or in accordance with the Changes provision of this Contract.

#### **107.06 VALUE ENGINEERING CHANGE PROPOSALS BY THE CONTRACTOR**

The Contractor is encouraged to develop and offer proposals for improved construction techniques, alternative materials and other innovations. Proposals must provide a project comparable to the City's original design either at lower cost, with improved quality, or both. If a Value Engineering Change Proposal (VECP) Proposals shall be submitted only after contract award. If a VECP is rejected, the work shall be completed in accordance with the Contract at the Contract price. The Contractor shall have no claim against the City for compensable or noncompensable delay to the Contract based on the failure to respond to a VECP.

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The Contractor may submit either a full VECP or a preliminary Conceptual VECP, followed by a full proposal. The City Engineer will provide timely review of all VECPs and advise the Contractor whether the VECP is complete or incomplete. When the VECP is complete, the Project Manager will advise the Contractor of either the approval of the VECP or the reasons for rejection of the VECP.

Cost savings generated to the Contract as a result of VECPs offered by the Contractor and accepted by the Project Manager shall be shared equally between the Contractor and the City.

If the Project Manager determines that the time for response indicated in the submittal under item (c)5 below is insufficient for review, the Contractor will be promptly notified. Based on the additional time needed by the Project Manager for review and the effect on the Contractor's schedule caused by the added time, the Project Manager will evaluate the need for a non-compensable time adjustment to the Contract.

(a) VECPs that will be considered are those that would produce savings to the City or provide improved Project quality without impairing essential functions and characteristics of the Project. Essential functions include but are not limited to: service life, economy of operation, ease of maintenance, desired appearance, safety, and impacts to the traveling public or to the environment during and after construction.

(b) *Submittal of Conceptual Proposal.* For VECPs that require a significant amount of design or other development resources, the Contractor may submit an abbreviated conceptual proposal for preliminary evaluation. The Project Manager will evaluate the information provided and advise the Contractor if any conditions or parameters of the conceptual proposal are found to be grounds for rejection. Preliminary review of a conceptual proposal reduces the Contractor's risk of subsequent rejection but does not commit the City to approval of the full VECP. The following information shall be submitted for each conceptual proposal.

1. A statement that the proposal is submitted as a conceptual VECP.
2. A general description of the difference between the existing Contract and the proposed change, and the advantages and disadvantages of each, including effects on cost, service life, economy of operation, ease of maintenance, desired appearance, safety, and impacts to the traveling public or to the environment during and after construction.
3. A set of conceptual plans and a description of proposed changes to the Contract specifications.
4. An estimate of the anticipated cost savings or increase.
5. A statement specifying:
  - a. when a response to the conceptual proposal from the City is required to avoid delays to the existing contract prosecution,
  - b. the amount of time necessary to develop the full Proposal,
  - c. the date by which a Change Order must be executed

to obtain maximum benefit from the VECP, and

d. the VECP's impact on time for completing the Contract.

(c) *Submittal of Full Value Engineering Change Proposal.* The following materials and information shall be submitted with each VECP.

1. A statement that the proposal is submitted as a VECP.
2. A description of the difference between the existing Contract and the proposed change, and the advantages and disadvantages of each, including effects on service life, economy of operation, ease of maintenance, desired appearance, safety, and impacts to the traveling public or to the environment during and after construction.
3. A complete set of plans and specifications showing the proposed revisions relative to the original Contract. This portion of the submittal shall include design notes and construction details. The proposed plans and specifications shall be signed and sealed by the Contractor's engineer.
4. A complete analysis indicating the final estimated costs and quantities to be replaced by the VECP compared to the new costs and quantities generated by the VECP. All costs and proposed unit prices shall be documented by the Contractor.
5. A statement specifying the date by which a Change Order must be executed to obtain the maximum cost reduction during the remainder of the Contract.
6. A statement detailing the effect the VECP will have on the time for completing the Contract.
7. A description of any previous use or testing of the proposed changes and the conditions and results. If the VECP was previously submitted on another City project, the VECP shall indicate the date, Contract number, and the action taken by the City.
8. An estimate of any effects the VECP will have on other costs to the City.
9. A statement of life cycle costs, when appropriate. Life cycle costs will not be considered as part of cost savings but shall be calculated for additional support of the VECP. A discount rate of four percent shall be used for life cycle calculations.
10. A statement specifying when a response from the City is required to avoid delays to the prosecution of the Contract.

(d) *Evaluation.* VECPs will be evaluated in accordance with the following:

1. The Project Manager will determine if a VECP qualifies for consideration and evaluation. The Project Manager may reject any VECP that requires excessive time or costs for review, evaluation, or investigations. The Project Manager may reject proposals that are not consistent with the City's design policies and criteria for the Project.

2. VECPs, whether or not approved by the City, apply only to this Contract and become the property of the City. VECPs shall contain no restrictions imposed by the Contractor on their use or disclosure. The City has the right to use, duplicate and disclose in whole or in part any data necessary for the utilization of the Proposal. The City retains the right to utilize any accepted VECP or part thereof on other projects without obligation to the Contractor. This provision is subject to rights provided by law with respect to patented materials or processes.
  3. If the City is able to demonstrate that it is already considering certain revisions to the Contract, prior to receipt of the VECP, or has approved certain changes in the Contract for general use that are subsequently proposed in a VECP, the Project Manager will reject the VECP and may proceed to implement these changes without obligation to the Contractor.
  4. The Contractor shall have no claim against the City for additional costs or delays resulting from the rejection or untimely acceptance of a VECP. These costs include but are not limited to: development costs, loss of anticipated profits, increased material or labor costs, or untimely response.
  5. VECP will be rejected if equivalent options are already provided in the Contract.
  6. VECP that only reduce or eliminate Contract pay items will be rejected.
  7. The savings generated by the VECP must be sufficient to warrant a review and processing, as determined by the Project Manager.
  8. A VECP changing the type or thickness of the pavement structure or changing the design of a bridge will be rejected.
  9. Additional information needed to evaluate VECPs shall be provided in a timely manner. Untimely submittal of additional information will result in rejection of the VECP. Where design changes are proposed, the additional information shall include results of field investigations and surveys, design and computations, and changed plan sheets required to develop the design changes.
- (e) *Payment.* If the VECP is accepted, the changes and payment will be authorized by a Change Order. Reimbursement will be made as follows:
1. The changes will be incorporated into the Contract by changes in quantities of unit items, new agreed unit price items, or both, as appropriate, under the Contract.
  2. The Price of the contract will be revised to reflect the changes in the VECP. The City will pay the Contractor 50 percent of the savings to the City upon completion of the Project. The savings to the City shall be the difference between the cost of the revised work and the cost of the related construction required by the original Contract computed at Contract prices.

3. Costs incurred by the Contractor for development, design, and implementation of the VECPs will not be reimbursed.
4. When work performed under an approved VECP is modified to fit field or other conditions, the maximum amount paid for the work will be limited to that which would have been paid if the work had been performed under the original Contract provisions. The rejection or limitation of reimbursement shall not constitute the basis of any claim against the City for delay or for other costs except as allowed under the original Contract.

#### **107.07 AUTHORITY OF THE PROJECT MANAGER**

The Project Manager will decide all questions regarding the quality and acceptability of materials furnished, work performed, and the rate of progress of the work, all interpretation of the plans and specifications, and the acceptable fulfillment of the Contract. The Project Manager will perform technical inspection of the work and shall have authority to reject all work and materials which do not conform to the Contract.

The Project Manager has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract or for the convenience of the City. The Project Manager may order the Contractor, by giving ten (10) days written notice, to suspend, delay, or interrupt all or any portion of the work required by the Contract for a period of up to (10) ten Calendar Days at no additional cost to the City. The Project Manager may immediately stop the work when it is determined that the public's safety and welfare is in jeopardy.

The Project Manager will, within a reasonable time after their presentation to the Project Manager, make decisions in writing on all claims submitted to the City by the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the Contract Documents. The Project Manager's decisions shall be final.

#### **107.08 DUTIES OF THE INSPECTOR**

Inspectors employed by the City are authorized to inspect all work done and materials furnished. Any such inspection may extend to all or any part of the work and to the preparation, fabrication or manufacture of the materials to be used. An inspector is not authorized to alter or waive the provisions of the Contract. An inspector is not authorized to issue instructions contrary to the provisions of the Contract or to act as foreman for the Contractor.

#### **107.09 CONSTRUCTION OBSERVATION AND INSPECTION**

The Project Manager shall at all times have access to the work, and the Contractor shall provide proper equipment, materials and labor as required for such access and inspection.

All equipment, material, and articles incorporated into the work covered by this Contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this Contract. The Project Manager shall have the right to reject materials and workmanship, which are defective, or require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises and replaced without charge to the City. If the Contractor does not correct such rejected work and

remove rejected materials within a reasonable time fixed by written notice, the City may remove them and charge the expense to the Contractor.

Should it be considered necessary or advisable by the Project Manager at any time before final acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall on request promptly furnish necessary facilities, labor and materials. If such work is found to be defective in any material respect due to fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual, reasonable cost of labor and material necessarily involved in the examination and replacement, plus ten (10) percent, will be allowed the Contractor.

All materials to be incorporated in the work, all labor performed, all tools, appliances, and methods used shall be subject to the inspection and approval or rejection of the Project Manager.

If the Project Manager points out to the Contractor, Contractor's foreman, or agent any neglect or disregard of the Contract provisions, such neglect or disregard shall be remedied and further defective work be discontinued immediately.

The Contractor shall execute the work only in the presence of the Project Manager or authorized representative, unless provision has been made for the work to proceed without complete engineering supervision or inspection. The presence of the Project Manager or authorized representative shall in no way relieve the Contractor of any responsibility under this Contract.

The observation of the work by the Project Manager is intended to aid the Contractor in applying labor, materials, and workmanship in compliance with the Contract provisions. Such observation, however, shall not relieve the Contractor from any of Contractor's Contract obligations.

#### **107.10 CONTRACTOR COOPERATION**

All work under this Contract shall be performed in a skillful and professional manner. The Project Manager shall have the authority to order the Contractor to remove from the work site any employee the Project Manager deems incompetent, careless, or otherwise objectionable to the general public or the City by notify the Contractor of such order in writing.

- (a) Workmen, Methods and Equipment: Permission from the Project Manager to use any particular methods, equipment or appliances shall not be so construed as to relieve the Contractor from furnishing other equipment or appliances or adopting other methods when those in use prove unsatisfactory to the Project Manager, or as to bind the Project Manager to accept work which does not comply with the Contract.

#### **107.11 CONTRACTOR'S RESPONSIBILITY FOR WORK**

Until the work is accepted by the Project Manager as evidenced by the issuance of the Certificate of Completion, the Contractor shall have the charge and care thereof and shall take every necessary precaution against injury or damage to any part thereof by action of the elements or from any other cause, whether arising from the execution or from the non-

execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance and shall bear the expense thereof.

The Contractor shall be responsible for the preservation of all public and private property, trees, fences, monuments, and other property, along and adjacent to the improvements and shall use suitable precautions necessary to prevent damage to pipes, conduits, and other underground structures. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct in the execution of the work, or in consequence of the non-execution thereof on the part of the Contractor, such property will be restored by the Contractor and at Contractor's expense to a condition similar, or equal to that existing before such damage or injury to the satisfaction of the City's Project Manager.

It shall be the responsibility of the Contractor, when moving or operating equipment, to make all arrangements for temporary crossings of telephone, transmission, pipe lines, railroad tracks, and irrigation ditches. This work shall not be paid for as a separate item but shall be considered as incidental to the project.

## **107.12 PROTECTION OF UTILITIES**

The Contractor's attention is directed to the fact that utilities may encroach on the construction of this Project, and also to the importance of protecting all public/private utilities encountered on this project. These may include telecommunications, cablevision, traffic signal lines, power lines, water lines, sewer lines, gas lines, railroad tracks, and other overhead and underground utilities.

The City does not warrant any survey work or location of utilities or other underground apparatuses whether performed by the City, its agent, or an independent contractor. Contractor understands and agrees any survey or location work performed by the City, its agent, or other independent contractor is provided for guidance purposes only, so as to show the approximate location of underground utilities or apparatuses. Contractor understands the existence or exact location of underground utilities or apparatuses may not be known to the City or the design engineer of record. Contractor, therefore, agrees that it shall verify the existence and location of any underground utilities or apparatus along the route of work. Verification shall be done by potholing or using other methods which will detect the exact depth, dimensions, and location of any underground utilities or apparatus.

Contractor shall be liable for any damages, loss, or claims of whatsoever kind caused by its failure to pothole or use other methods of identifying the exact depth, dimensions, and location of any underground utilities or apparatus. Contractor agrees that any claim of any kind whatsoever, damages, loss, lawsuit, demand, or request for equitable adjustment ("Claims"), shall be waived and the City shall be forever released and discharged from such Claims if Contractor fails to comply with its obligations under this section. Contractor agrees that if it fails to maintain all records or other evidence establishing that it potholed or otherwise determined the exact location, depth, and dimensions of all underground utilities and apparatuses, then it shall not be permitted to make any Claim arising from or related to the location of underground utilities or apparatus.

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The size and location of all existing utilities as known to the Project Manager have been noted on the plans for the information and guidance of the Contractor. The Contractor shall be responsible for the location and protection of all utilities located within his working area regardless of whether or not their existence or location is shown or noted on the drawings.

It is the Contractor's responsibility to complete required work and to schedule inspections during normal working hours. The Contractor is responsible for contacting each affected utility for their inspectors' working hours. The Contractor is responsible to request an inspection two (2) working days in advance of the inspection. In the case of an overtime inspection, the request must be in writing. All overtime costs for inspection by Colorado Springs Utilities, or other utilities personnel, shall be the Contractor's expense. The City will not entertain any requests for time extensions for delays caused by the Contractor's failure to properly notify the affected utility of a required inspection or the Contractor's failure to complete the required work by the time of the scheduled inspection.

Any information concerning underground utilities shown on the drawings is intended to be merely an aid to the Contractor. The accuracy of information with respect to underground utilities is not guaranteed. The Contractor shall make their own investigation, including exploratory excavations, to determine the locations and type of existing mains or service laterals or appurtenances when their presence can be inferred from the presence of other visible facilities, such as building, manholes, inlets, meters and junction boxes, on or adjacent to the site of the work. If the Contractor discovers utility facilities not identified in the plans or specifications or in a position different from that shown in the plans and specifications, the Contractor shall immediately notify, verbally and in writing, the Project Manager and Owner of the utility facility.

Before any excavation is begun in the vicinity of water lines, railroad tracks, or structures, sewer lines, telecommunication conduits or cablevision line, each utility company, including Colorado Springs Utilities (if applicable), department, or company concerned must be notified in advance of such excavation, and such excavation shall not be made until an authorized representative of the utility concerned is at the site.

All utilities encountered must be kept in operation by the Contractor and must be protected and/or repaired at the Contractor's own expense, unless otherwise specified in the Contract documents. The Contractor shall be held liable for all damages to any and all public utilities encountered on the project, which damages are due to the Contractor's operations. Such damages shall include all physical damages to utilities and also all damages due to interruption of service of such utilities, when such damages and interruptions are caused by the Contractor's operations.

Where alterations or moving of utilities is not required to permit construction of the project, the Contractor shall take such measures as the Project Manager may direct to properly protect these utilities throughout his construction operations and shall cooperate at all times with the proper authorities and/or owners in maintaining service of railroads, conduits, pole lines, transmission lines, pipe lines, sewers, etc., affected by this project.

The costs of damages due to the Contractor's operation shall not be allowable under this Contract and shall result in no additional cost to the City. The cost of protecting utilities where alteration or relocation is not required to permit construction of the project shall be considered

as included in the original Contract price for the project and shall result in no additional cost to the City.

Should any pipe line, water lines, or gas mains, electrical conduits, sewer pipes, overhead wiring, telecommunication lines, power lines, or any other such utilities, not specifically mentioned and provided for elsewhere as a part of this Contract, have to be moved, repaired, reconditioned, or revised due to the construction, or moved temporarily to permit construction of the project the party or parties owning and operating such utilities shall perform the actual work of moving, repairing, reconditioning, or revising such utilities. Any such work would be added via change order, and the cost of this work will be borne by Colorado Springs Utilities, the utility companies involved, or other means arranged by the City.

(a) Existing Utilities

1. Existing Gas Lines: As of April 1, 1983, Federal law requires anyone who uncovers a gas line to report it to the gas company and allow it to be inspected by the gas company personnel before it is backfilled. Colorado Springs Utilities or other provider is to be notified prior to any excavation around gas lines. A Colorado Springs Utilities. or other applicable provider. inspector is to be notified and present on site prior to construction activities around gas lines.
2. Existing Sewer Mains and Services: All relocation, replacement protection shown on the plans or determined necessary by the inspector shall be performed according to the latest Colorado Springs Utilities Wastewater Standard Specifications. Minimum 48 hours' notice must be given to Colorado Springs Utilities prior to any related work.
3. The Contractor shall adjust sanitary sewer manhole rims to an elevation acceptable to Colorado Springs Utilities. The Contractor shall contact Colorado Springs Utilities twenty-four (24) hours prior to manhole rim adjustments.
4. Existing Water Mains and Services: All relocation, replacement or protection shown on the plans or determined necessary by the inspector shall be performed according to the latest Colorado Springs Utilities Water Standard Specifications and the Water Service Standard Specifications. Minimum 48-hour notice must be given to Colorado Springs Utilities prior to any related work. Colorado Springs Utilities reserves the right to schedule any operations at their discretion and to provide for any requirements determined necessary to perform the work. The Contractor shall coordinate with the Colorado Springs Utilities and receive their approval prior to performance of the work.

(b) Utility Support Systems:

1. If required by the Contract documents, or requested by the Project Manager, the Contractor shall submit shop drawings for the method of temporary support for all existing utilities during construction. The temporary support details for existing utilities shall be submitted for review and approval prior to performance of the work. Shop drawings must bear the seal of a Professional Project Manager registered in the State of Colorado, unless so waived by the City.

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2. Regardless of City approved shop drawings, the Contractor shall be responsible for the satisfactory support of the utility system and any damages that may occur to the utility involved.

(c) Electric Utility Installation:

1. Any electric facilities unless otherwise noted are to be relocated or modified by Colorado Springs Utilities. The Contractor shall coordinate the work with Colorado Springs Utilities and Colorado Springs Utilities Contractor.

2. Light Pole Installation or Relocation:

- a. The Contractor is responsible for coordinating with Colorado Springs Utilities, removing existing light pole foundations, constructing new light pole foundations, installing new conduits, and installing lighting junction boxes. The Contractor is responsible for coordinating with Colorado Springs Utilities for the de-energizing and removal of existing light poles.

- b. Colorado Springs Utilities will remove the existing light standards, reset the light standards upon completion of the new foundations, conduit and junction boxes, pulling wire, and beginning operations of the lighting within the project limits. The Contractor is responsible for scheduling and coordination with Colorado Springs Utilities crews for reinstallation and re-energizing completed light poles.

(d) Gas Utilities: The Contractor is responsible for coordinating with Colorado Springs Utilities for the relocation of existing Gas lines. Colorado Springs Utilities will relocate the existing gas lines as necessary to install project improvements within the project limits. The Contractor is responsible for scheduling and coordination with Colorado Springs Utilities crews.

(e) Telecommunication Agencies: Any telephone facilities unless otherwise noted are to be relocated or modified by the respective private utility company. The Contractor shall coordinate the work with the respective private utility company.

(f) Cablevision: The television utilities are to be relocated by the cable provider. The Contractor shall coordinate the work with any affected cable provider.

### 107.13 FEDERAL FUNDS

If this Contract is a federally assisted construction contract all applicable federal requirements, terms and conditions, provisions and forms shall apply. Additionally, during the performance of this Contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates

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of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause

2. The Contractor will, in all solicitations or advancements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
3. The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
4. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other Contract or understanding a notice advising the labor union or workers representative of the Contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
5. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
6. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Secretary of Labor, State of Colorado Civil Rights Commission and any other governmental agency entity which may be assisting with the funding under this Contract for purposes of investigation to ascertain compliance with such rules, regulations and orders.
7. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any such rules, regulations, or orders, this Contract may be cancelled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further government Contracts or Federally assisted construction Contracts in accordance with the procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or otherwise provided by law.

8. The Contractor shall include the provisions of Paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the city, state, or any federal governmental entity may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the city, the state, or the United States to enter into such litigations to protect the interests of such governmental entity.

#### **107.14 SUPERINTENDENCE**

The Contractor shall give the work the constant attention necessary to facilitate the progress thereof and shall cooperate with the Project Manager and with other contractors or Colorado Springs Utilities employees in every way possible. The Contractor shall have at all times, on the work, as Contractor's agent, a competent superintendent capable of reading and thoroughly understanding the Plans and Specifications, and who shall have the necessary authority to receive and promptly execute the instructions and orders from the Project Manager or the Project Manager's authorized representative. Such superintendent shall be furnished irrespective of the amount of work sublet. The Contractor shall supply the Project Manager with a list of phone numbers at which the Contractor and its superintendent and foreman can be reached at any time. The assigned superintendent must adhere to the cooperation requirements specified in this Contract and is subject to removal if so ordered in writing by the Project Manager.

#### **107.15 PREPARATION**

All vegetation, stumps, and debris and other objectionable objects shall be removed from the area staked out by the Project Manager, and where necessary from the area immediately adjacent thereto. Such debris shall be hauled from the site of the construction and wasted as directed by the Project Manager.

#### **107.16 STAKING WORK**

The Project Manager may provide reference points (horizontal and vertical control) only, unless otherwise noted in the proposal and project specifications. The Contractor shall engage the services of a licensed surveyor or surveying firm (hereinafter referred to as the Surveyor) to be approved by the Project Manager. The Surveyor shall perform all detailed construction layout and staking including the staking of all storm sewer, street improvements, and utility relocations in accordance with the plans and specifications. The Contractor shall be responsible for the correctness and accuracy of the detailed layout of finished structures.

Any instrument man or survey assistant employed on the work by the Contractor or his subcontractors, who are judged by the Project Manager to be incompetent, shall be removed from the work and replaced by a competent individual.

**107.17 DEVIATION ALLOWED**

Finished surfaces in all cases shall conform to lines, grades, cross sections and dimensions shown on the approved drawings or described in the Specifications. Deviations from the approved drawings and working drawings as may be required by the expedencies of construction, in all cases, must be determined by the Project Manager and authorized in writing. If the Project Manager deems it inexpedient to correct work injured or done in an unauthorized manner, an equitable deduction from the Contract price of the work done shall be made by the Project Manager subject to approval of the City Procurement Services Manager.

**107.18 RIGHT-OF-WAY**

The City's right-of-way will in general be adequate for construction purposes. Nothing marked on the drawings shall be interpreted as giving the Contractor exclusive occupancy of the territory provided by the City. The City and its employees for any purpose, and other contractors of the City, for any purpose required by their respective contracts, may enter upon or occupy any portion of the land furnished by the City. When the territory of one contract is a necessary or convenient means of access for the execution of another contract, such privileges of access or any other reasonable privilege shall be granted by the Contractor to the extent, amount, in the manner and at times necessary. No such joint occupancy or use of the territory shall be made as the basis of any claim for delay or damages.

**107.19 SHOP DRAWINGS AND SUBMITTALS**

The Contractor shall submit to the Project Manager all shop drawings and submittals required for the work, including those pertaining to structural and reinforcing steel within fifteen (15) Calendar Days from the date of the Notice of Award. The Contractor shall make any corrections in the drawings required by the Project Manager and resubmit the same without delay.

Three final copies of all shop drawings (if applicable), submittals (if applicable) and schedules shall be submitted to the Project Manager, who after checking will retain two copies and return one copy to the Contractor. The Project Manager's approval of shop drawings of equipment and material shall extend only to determining the conformity of such equipment and materials with the general features of the design drawings prepared by the Project Manager. It shall be the responsibility of the Contractor to determine the correctness of all dimensions and minor details of such equipment and materials so that when incorporated in the work, correct operations will result.

**107.20 RECORD DRAWINGS**

The Contractor shall maintain an up-to-date set of Contract drawings and Contract records, legibly marked; depicting all constructed improvements at the site or as otherwise specified and shall submit a complete set labeled "Project Record" to the Project Manager upon completion of the Project.

(a) Drawings:

1. Depths of various elements of foundation in relation to finish floor datum.

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2. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements and Project survey control.
3. Location of internal utilities and appurtenances concealed in the construction, referenced to permanent surface improvements and project survey control.
4. Field changes of dimensions and detail.
5. Changes made by Change Order.
6. Details not on original Contract drawings.

(b) Specifications and Addenda:

1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
2. Changes made by Change Order.

## **107.21 MATERIALS**

Unless otherwise stipulated in the Specifications, all workmanship, equipment, materials, and articles incorporated in the work covered by this Contract are to be new and of the best grade of their respective kinds for the purpose. The Contractor shall furnish to the Project Manager for the Project Manager's approval, the name of the manufacturer of machinery, mechanical and other equipment, which he contemplates installing, together with their performance capacities and other pertinent information including but not limited to instruction manuals pertaining to the use and operation of such machinery, mechanical and other equipment.

When required by the Specifications, or when called for by the Project Manager, the Contractor shall furnish for approval full information concerning the materials or articles which he contemplates incorporating in the work. Samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials, and articles installed or used without such approval shall be at the risk of subsequent rejection.

## **107.22 MATERIAL INSPECTION AT PLANT**

If the Project Manager inspects the materials at the source, the following conditions shall be met:

- (a) The Project Manager shall have the cooperation and assistance of the Contractor and the materials producer.
- (b) The Project Manager shall have full entry to all parts of the plant necessary for the manufacture or production of the materials being furnished.
- (c) Adequate safety measures shall be provided and maintained.

The City reserves the right to retest all materials which have been previously tested or inspected. The retesting may be prior to or after incorporation of the materials into the work.

Those materials inspected and tested after delivery on the Project or after incorporation into the work that do not meet the requirements of the Contract will be rejected and replaced at no additional cost to the City.

### **107.23 HANDLING MATERIALS**

All materials shall be handled so their quality and fitness for the work is preserved. Aggregates shall be transported to the work in vehicles constructed to prevent loss or segregation of materials.

### **107.24 CITY FURNISHED MATERIALS**

Material furnished by the City will be made available to the Contractor at the points specified in the Contract.

The cost of handling and placing materials after they are made available to the Contractor shall be considered as included in the Contract price for the item, and shall result in no additional cost to the City.

The Contractor will be held responsible for all material received until it is incorporated into the work and accepted.

Demurrage charges resulting from the Contractor's failure to accept the material at the designated time and point of delivery will be deducted from monies due the Contractor.

### **107.25 BUY AMERICA REQUIREMENTS**

All manufacturing processes, including the application of a coating, for all steel and iron products permanently incorporated in the work shall have occurred in the United States of America. All manufacturing processes are defined as "processes required to change the raw ore or scrap metal into the finished, in-place steel or iron product". This requirement will not prevent a minimal use of foreign steel or iron provided the total project delivered cost of all such steel and iron which includes the cost of delivering the steel and iron to the Project, does not exceed one-tenth of one percent of the total Contract cost or \$2,500, whichever is greater.

With every steel or iron product that requires pre-inspection, pretesting, certified test results, or certificate of compliance, the Contractor shall provide a certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product that every process, including the application of a coating, performed on the steel or iron product either has or has not been carried out in the United States of America. These certifications shall create a chain of custody trail that includes every supplier, distributor, fabricator, and manufacturer that handles the steel or iron product. The lack of these certifications will be justification for rejection of the steel or iron product. Upon completion of the Project, the Contractor shall certify in writing of compliance with this requirement and provide evidence of the Project delivered cost of all foreign steel or iron permanently incorporated into the Project.

### **107.26 TESTING OF MATERIALS**

Tests and Inspections. The City will employ and pay for the services of an approved testing laboratory to perform specified services for the field testing of:

- (a) Soil Compaction Control
- (b) Cast-in-Place Concrete
- (c) Asphalt Concrete Pavement

The Contractor shall perform, or arrange for the performance, and pay all costs in connection therewith, all other tests and inspections required by the Contract documents. The Contractor shall pay for all testing laboratory services in connection with tests verifying conformance of proposed materials and installation with project requirements including, but not limited to, mix designs, riprap, gradation tests for embedment, fill and backfill materials. The City shall pay for testing laboratory services in connection with tests on materials after incorporation into the project, unless retesting of materials is necessary because of the failure of the materials to meet the Project requirements. The Contractor shall obtain the City's written acceptance of the testing laboratory before having services performed.

(a) Requirements for Independent Testing Consultants.

1. Consultants shall comply with "Recommended Requirements for Independent Laboratory Qualifications", latest edition, published by the American Council of Independent Laboratories, and basic requirements of ASTM E-329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction", latest edition.
2. The Contractor shall submit to the City for prior approval, the name and address of the proposed testing laboratory with description of personnel, facilities, equipment and other qualification data, including certificate of calibration of applicable testing equipment made by an accredited calibrated agency no more than twelve (12) months prior to submittal date.

(b) Test Reports

1. Testing agency shall be instructed to submit directly to the City three (3) copies of all reports of tests or inspections made, showing compliance, irregularities or deficiencies, identifying Project, date of test, location in Project, applicable specification section, applicable standard(s) for compliance, observations relating to compliance, name and signature of inspector.

(c) Contractor Responsibilities

1. Furnish access to the work, materials, equipment and labor required to accommodate inspections and tests when testing laboratory is retained by the City. In the event retesting of materials or recompaction is necessary because of the failure of the materials or compaction to meet the Project requirements, the cost of said retesting shall be borne by the Contractor. Cost of said retest will be deducted from the final payment amount due the Contractor, or invoiced directly to the Contractor at the City's discretion.

(d) Reliance on Technical Data

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Without warranty or representation as to the accuracy or completeness of any information or data, Contractor may rely upon the general accuracy of the “technical data” contained in the reports, specifications and drawings. The “technical data” is identified in the work technical specifications, drawings and reports that are signed and sealed by a registered Professional Engineer, Architect or Landscape Architect in the State of Colorado. Except for the reliance on the general accuracy of the “technical data,” Contractor may not rely upon or make any claim against the City with respect to:

1. the accuracy or completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, and information contained in the reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

**107.27 UNANTICIPATED CIRCUMSTANCES**

Contractor understands that this is a firm fixed price contract and so long as there are no changes in the scope of work or unanticipated circumstances as provided in subsection A-C below, Contractor must deliver the project for the agreed price. The parties agree that not every circumstance can be anticipated or known at the time this Contract was executed. Compensation for unanticipated circumstances, limited to subsections A –C, shall, at the City’s sole discretion, be provided by the following method(s): (1) Unit prices previously approved; (2) allowing additional compensation on a time and materials method, not to exceed an agreed-to amount; (3) an agreed lump sum; and/or (4) the actual cost of:

- (a) labor (including foreman and additional supervision, if necessary);
- (b) materials necessary for incorporation into the Project;
- (c) rental cost of construction plant and equipment used for work;
- (d) Power and fuel required for operation of power equipment necessary to perform work;
- (e) Contractor shall provide to the City physical evidence of all costs, including, but limited to, payroll, invoices, vouchers, estimates, bills, accounting records, or other relevant records. Contractor agrees that its failure to provide evidence of a claimed cost shall be a waiver of such cost(s) and the City shall be released and forever discharged from any claim of any kind whatsoever, loss, damages, request for equitable adjustment, or demand related thereto. Contractor further agrees that, at the City’s discretion, a fixed fee, not to exceed 10% of the costs of work shall be added to such costs as compensation for the cost of management, insurance, benefits, bond, profit, and any other expenses.

To the extent unanticipated circumstances arise, Contractor shall follow the procedures and processes set forth herein and, if applicable, the Dispute Resolution provisions of this Contract. Contractor agrees that its failure to follow the processes set forth herein and the Dispute Resolution process shall forever waive, release, and discharge the City from any claim of any kind whatsoever, damages, losses, lawsuits, or demands known or unknown. Additionally, the terms “detail” or “particularity” mean specificity, providing the exact basis and reason therefor with citations to the Contract or Contract Documents. Vague or ambiguous references such as “other matters” or “other costs” shall not be permitted and are not subject to any compensation method whatsoever.

A. Differing Site Conditions or Changed Conditions: A differing site condition or changed condition means subsurface, latent, or unknown physical site conditions that are materially different than that which is indicated in the contract and which is not ordinarily encountered and generally recognized in the work provided for in the Contract.

Contractor understands the City must be permitted the opportunity to timely investigate all differing site/changed condition matters; document conditions as they existed on the site at the time; take measurements, photographs, witness statements and the like; negotiate a compromise resolution with the Contractor and/or subcontractors; and avoid the cost, expense and delay of formal litigation.

Upon discovering a differing site condition, the Contractor shall not disturb the conditions and immediately contact the Project Manager. Within five days of discovering the condition, the Contractor shall provide written notice to the Project Manager of the condition. The written notice shall describe the condition with particularity; provide the precise material difference of the condition from the Contract, design plans, and/or other Contract Documents; describe, in detail, how the condition is not a condition that would be ordinarily encountered and generally recognized in the work provided for in the Contract; and provide a detailed explanation, including all accounting and other evidence supporting, Contractor's losses, costs, delays, and changes in time required for performing the work. Contractor agrees that any claim, loss, damage, delay, or change in time that is not supported by evidence shall be disallowed. Contractor waives and forever releases and discharges the City from any claim of whatsoever kind, loss, damages, demand, and/or request for equitable adjustment whether known or unknown by disturbing the condition before notifying the Project Manager and by failing to provide timely detailed written notice as required herein. Any issue which is not provided for, in detail, in the written notice shall also be waived and the City shall be forever released and discharged from any claim whatsoever, loss, damage, or request for equitable adjustment, or demand arising therefrom.

After Contractor fully complies with the provisions in this section and after receiving the written notice, the Project Manager shall promptly investigate the condition and determine whether such condition materially differs from that indicated in the Contract Documents and whether it is a condition that would not ordinarily be encountered and generally recognized in the work provided for in the Contract. If the Project Manager determines the condition is a "differing site condition," then a Change Order shall be issued describing the differing site condition and compensation method agreed to by the parties. By signing the Change Order, Contractor agrees the City shall be released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from the matters described in the Change Order. The parties shall also sign a document which describes in detail each condition and each claim, loss, damage, delay, or change in time related to that particular condition which was agreed to and fully resolved as well as any condition and each claim loss, damage, delay, or change in time related to that particular condition which is disputed.

If the Contractor disputes, disagrees with, or otherwise considers unfair any decision or ruling by the City, then Contractor shall, within 10 Calendar Days, provide the City with written notice of the dispute as set forth in the dispute section of this Contract and shall follow the dispute resolution process provided therein.

B. Defective or Deficient Construction Plans or Documents: A defective or deficient construction plan or document means a material error, mistake, oversight, or omission in the design plans or documents providing the specifications depicting the general and detail features of the work to be performed.

Upon discovering a defect or deficiency, the Contractor shall immediately contact the Project Manager. Within five days of initially advising the Project Manager of the defect or deficiency, the Contractor shall provide written notice to the Project Manager. The written notice shall describe the defect or deficiency with particularity explaining why it is a material defect or deficiency; provide precise detail explaining why the defect or deficiency is not something Contractor should know how to do or why the defect or deficiency is not a condition that would be ordinarily encountered and generally recognized in the work provided for in the Contract; and provide a detailed explanation, including all accounting and other evidence supporting, Contractor's losses, costs, delays, and changes in time required for performing the work. Contractor agrees that any claim, loss, damage, delay, or change in time that is not supported by evidence shall be disallowed. Contractor agrees that it shall waive and forever release and discharge the City from any claim of whatsoever kind, loss, damages, demand, and/or request for equitable adjustment whether known or unknown by failing to immediately notifying the Project Manager and by failing to provide timely detailed written notice as required herein. Any issue which is not provided for in the written notice shall also be waived and the City shall be forever released and discharged from any claim whatsoever, loss, damage, or request for equitable adjustment, or demand arising therefrom.

After Contractor fully complies with the provisions in this section and after receiving the written notice, the Project Manager shall promptly investigate the condition and determine whether such matter is a "defective or deficient design plan or document" as defined herein. If the Project Manager determines the matter is a "defective or deficient design plan or document," then a Change Order shall be issued describing the defective or deficient design plan or document, the correction and compensation method agreed to by the parties. By signing the Change Order, Contractor agrees the City shall be released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from the matters described in the change order. The parties shall also sign Form A of this Contract which describes in detail each condition and each claim, loss, damage, delay, or change in time related to that particular condition which was agreed to and fully resolved as well as any condition and each claim loss, damage, delay, or change in time related to that particular condition which is disputed.

If Contractor disputes, disagrees with, or otherwise considers unfair any decision or ruling by the City, then Contractor shall, within 10 Calendar Days, provide the City with written notice of the dispute as set forth in the Dispute Resolution section of this Contract and shall follow the dispute resolution process provided therein.

C. Changes in Work and Additional/Extra Work (fixed price contract): When additional information through excavation, testing, site investigation, differing site conditions, or otherwise is obtained the City shall have the right to alter, change the location, re-design, change the work, add to the work, accelerate work, or reduce work, change the method or manner of performance, change services, and/or change materials described in the Contract (collectively "Changed Work").

If the City changes work, then a Change Order shall be issued by the Project Manager. Contractor shall not be required to perform any Changed Work without a Change Order issued by the Project Manager. Such Changed Work shall be performed under the terms set forth in the original Contract and compensated as agreed in this section of the Contract.

If Contractor disputes any Changed Work or compensation method for such Changed Work requested by the City or set forth in a Change Order, Contractor shall, without delay, perform such

work. Within 10 Calendar Days of receiving the Change Order, Contractor shall provide the City with written notice of the dispute as set forth in the Dispute Resolution section of this Contract and shall follow the dispute resolution process provided therein. Contractor further agrees that any issue not provided for, in detail, in the written notice shall also be waived and the City shall be forever released and discharged from any claim whatsoever, loss, damage, or request for equitable adjustment, or demand arising therefrom. Any matter resolved through the Dispute Resolution process shall be set forth in Form A of this Contract which describes in detail each Changed Work, including the compensation method, which was agreed to and fully resolved. By signing Form A, Contractor agrees that the City shall be released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from the matters described in Form A.

If Contractor does not dispute any Changed Work or the compensation method for such work, then Contractor shall sign the Change Order and agrees that the City shall be released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from the matters described in the Change Order.

Contractor agrees that the Project Manager shall have the authority to make minor changes in the work which do not involve additional costs and are not inconsistent with the purpose and scope of the work.

If the City finds it necessary or advisable, the City may omit, increase, or decrease any items as it may deem necessary or desirable without changing the unit prices in the proposal, provided such increase or decrease does not exceed 15% of the total monetary value of the original Contract. If material or labor involved in such change is not included in the unit prices of the Contract, but forms an inseparable part of the work to be done under this Contract, and the delay involved in asking for the bids or proposals and the letting of a new contract therefore might result in damage, injury, or impairment of the plant, work system, or other property belonging to the City, the City may in its discretion declare an emergency and require Contractor to proceed with such alterations and additions. The Contract shall not be required to perform such work or furnish extra materials without a Change Order issued by the Project Manager.

## **107.28 DISPUTE RESOLUTION**

Mindful of the high cost of litigation, not only in dollars, but also in time and energy, the parties intend to and do hereby establish the following out-of-court alternate dispute resolution procedure to be followed in the event any dispute, claim of any kind, loss, damage, demand, request for equitable adjustment, or controversy should arise out of, or relating to this Contract or relating to any Change Order or other changes or addendums to this Contract. During the dispute resolution procedure provided in this section, Contractor shall continue to perform the work as provided for in this Contract as modified by any Change Order or Contract amendment. Nothing in this section precludes the parties from pursuing any other remedy afforded by the laws of the State of Colorado once the remedies afforded under this Contract have been complied with and exhausted.

A. Disputes Arising from Unanticipated Circumstances: If Contractor disputes, disagrees with, or considers any decision, order, ruling, demand, request, directive, Change Order, or Contract amendment, related to the Unanticipated Circumstances provision of this Contract, and issued by the City, whether verbally or in writing, then Contractor shall:

1. Within 10 days of the City issuing any written or verbal decision, order, ruling, demand, request, directive, Change Order, or Contract amendment, Contractor shall provide

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written notice to the Project Manager identifying, with specific detail, each disputed matter. Any Unanticipated Circumstance dispute or matter of any kind or nature whatsoever, which Contractor does not identify in detail shall be waived and the City is released and fully discharged from any claim whatsoever, loss, damage, request for equitable adjustment, or demand arising from any matter not explicitly set forth in the written notice and described in detail;

2. Contractor shall provide to the City all evidence of any claim of whatsoever kind, loss, damages, delay cost, or other costs, including, but not limited to payroll reports, daily logs, invoices, accounting file, receipts, email, or other relevant record or document. Any item claimed by Contractor shall be supported by verifiable evidence described herein. If Contractor requires additional time to obtain or compile such evidence, then the Contractor shall have an additional 30 days, but must identify the exact document(s) or other evidence needed, where it is maintained, and explain why it is not available. The City shall not be responsible for any delay or other damage arising from Contractor's request for additional time to obtain documents. Any item unsupported by verifiable evidence shall be waived and Contractor agrees to release and fully discharge the City from any claim of whatsoever kind, loss, damage, request for equitable adjustment, or demand related to such unsupported item.
3. Upon receipt of Contractor's written notice, the Project Manager will investigate the disputed matter(s) and issue a written decision, ruling, order, and/or directive to Contractor. If Contractor does not dispute the Project Manager's decision, ruling, order, or directive, or a compromise has been reached, then Contractor shall sign Form A. If Contractor disputes or disagrees with the Project Manager's Ruling, then within 20 days of receiving the Project Manager's decision, ruling, order, and/or directive, Contractor must file with the City a written request for review to the City Engineer or City's Manager of the Procurement Services Division. The written request for review shall (a) state in detail the exact issue raised to the Project Manager and the issue(s) related to those matters raised to be reviewed by the City Engineer or Procurement Services Manager; (b) provide an analysis, detailing the basis, reason therefor and the how and why Contractor disagrees with the Project Manager's decision, ruling, order, or directive; and (c) attach all evidence supporting Contractor's dispute. If Contractor fails to provide a timely written request for review to the City Engineer or Procurement Services Manager, then Contractor agrees that it waives, releases, and forever discharges the City from any claim of whatsoever kind, loss, damage, request for equitable adjustment, or demand arising from or related to the Project Manager's decision, ruling, order, or directive.
4. The City Engineer's or Procurement Services Manager's decision shall be final and conclusive for the City of Colorado Springs. If Contractor disputes, disagrees with, or considers such decision unfair, then Contractor shall be free to pursue any other remedy afforded by the laws of the State of Colorado. If Contractor does not dispute the City Engineer's or Procurement Services Manager's decision, ruling, order, or directive or a compromise is reached, then Contractor shall sign Form A.
5. Contractor shall pay the City reasonable attorney's fees and costs associated with its failure to comply with any part of this alternate dispute process.

B. All Other Claims: If a dispute, disagreement, or controversy of any kind, other than those covered in the Unanticipated Circumstances section of this Contract, arises from or is related to the Contract, shall be resolved under the Disputes section in the Contract.

#### **107.29 REMOVAL AND SUSPENSION FOR DEFECTIVE WORK**

All work or material which has been rejected shall be remedied or removed and replaced in an acceptable manner. Additional compensation will not be allowed for such removal and replacement. Any work done beyond the lines and grades shown on the drawings, except as herein provided, will be considered as unauthorized and will not be measured or paid for. Work so done may be ordered removed at the Contractor's expense. Should the Contractor fail to comply promptly with any order of the Project Manager made under the provisions of this paragraph, the Project Manager shall have the authority to cause said work to be removed and to deduct the cost from any money due, or to become due, from the Contractor. At any time during the course of construction of this project if the provisions of the Plans, Specifications, or Contract provisions are being violated by the Contractor or his employees, the Project Manager shall have the right and authority to order all construction to cease or material to be removed, until arrangements satisfactory to the Project Manager are made by the Contractor for resumption of the work in compliance with the provisions of the Contract.

The Contractor shall promptly remove from the premises all materials and work rejected by the Project Manager as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute Contractor's own work in accordance with the Contract and without expense to the City and shall bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement.

All removal and replacement work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected work and materials within ten (10) days' time thereafter, the City may, upon ten (10) days written notice, sell such materials at auction or at private sale and retain the proceeds without compensation to the Contractor.

#### **107.30 CLEANING UP AND FINAL INSPECTION**

The Contractor shall at the completion of the work, remove all rubbish from and about the work and all tools, equipment, scaffolding, and surplus materials and shall leave the work clean and ready for use. If not completed by Contractor, the City may remove the rubbish and surplus materials and charge the cost to the Contractor.

All sewers, conduits, pipes, and appurtenances and all tanks, pump wells, chambers, buildings, and other structures shall be kept clean during construction and as the work or any part thereof approaches completion, the Contractor shall systematically and thoroughly clean and make any needed repairs to them. Contractor shall furnish at Contractor's own expense, suitable tools and labor for removing all water and cleaning out all dirt, mortar, and foreign substances. Any undue leakage of water into the structures such as to make the work, in the opinion of the Project Manager, fall short of first class work, shall be promptly corrected by the Contractor at Contractor's own expense.

Cleaning and repairs shall be arranged, so far as practicable, to be completed upon finishing the construction work. Notice to begin the final cleaning, and repairing, if such is needed, will

be given by the Project Manager, who at the same time will make his final inspection of the work. The Project Manager will not approve the final estimate of any portion of the work until after the final inspection is made and the work is found to be satisfactory.

### **107.31 CUTTING AND PATCHING**

The Contractor shall do all cutting, fitting, or patching of work that may be required to make its several parts fit together or to receive the work of other contractors shown upon, or reasonably implied by the Plans and Specifications for the completed Project.

Cold or wet weather conditions that do not permit a permanent asphalt pavement replacement will require a minimum 2" bituminous pavement patch prior to opening the area to traffic as a temporary measure until the permanent asphalt pavement replacement can be installed. This item shall be incidental to any work requiring such removal of asphalt and will be considered to be included in the unit price of the related item of work.

Any cost caused by defective or ill-timed work shall be borne by the Contractor.

The Contractor shall not endanger any work by cutting, digging, or otherwise and shall not cut or alter the work of any other Contractor without the consent of the Project Manager.

### **107.32 FINAL TESTS**

After completion of the work, the Contractor shall make any and all tests required by the Specifications or by municipal, state, or federal regulations, and where so provided in said regulations shall furnish the City with certificates of inspection by the applicable regulatory bodies. The Contractor shall also make all tests required by the National Board of Fire Underwriters for the purpose of determining insurance rates or other protection of the City or the public.

### **107.33 CORRECTION OF WORK AFTER FINAL PAYMENT**

Neither the final payment nor any provision in the Contract Documents shall relieve the Contractor of the responsibility for negligence or faulty materials or workmanship within the extent and periods provided by law and by this Contract.

### **107.34 NO WAIVER OF LEGAL RIGHTS**

Upon written notice that the Contractor considers all work complete, the Project Manager will make a pre-final inspection with the Contractor and will notify the Contractor in writing of incomplete or defective work revealed by the inspection. The Contractor shall promptly remedy such deficiencies.

After the Contractor has remedied all deficiencies to the satisfaction of the Project Manager and delivered all construction records including record drawings, maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection and other documents (all as required by the Contract Documents), the Contractor will be promptly issued a Certificate of Completion by the Project Manager stating that the work is acceptable.

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Upon completion of the Contract, the City will make final inspection and notify the Contractor of acceptance. Final acceptance shall not preclude the City from correcting any measurement, estimate, or certificate made before or after completion of the Contract, nor from recovering from the Contractor or Surety, or both, overpayments sustained because the Contractor failed to fulfill the obligations under the Contract.

The Contractor shall be liable to the City for latent defects, fraud, or such mistakes as may amount to fraud, or as regards the City's rights under any warranty or guarantee.

For all non-federally funded projects, the following additional requirements shall apply:

- (a) All work shall be constructed in compliance with standard construction codes, and all materials and workmanship must be guaranteed for a period of two years from the date of final acceptance. If any defect in the work in violation of the foregoing warranty arises, Contractor shall, upon receipt of written notice of such defect, promptly furnish, at no cost to the City, design and engineering, labor, equipment, and materials necessary to correct such defect and cause the Work to comply fully with the foregoing warranty and Contract Documents. This obligation shall survive both final completion of and final payment for the Work. The City shall not be invoiced for any of costs of warranty work, and Contractor shall not be entitled to submit any claim for an increased fee arising therefrom. The Contractor guarantee period (two-year warranty period) will not begin until the Contract is 100 percent complete, as determined by the Project Manager. Acceptance of the 100 percent complete work shall be requested in writing by the Contractor. Any item requiring repair and/or replacement prior to expiration of the two-year warranty period shall be guaranteed for a period of one-year after the date of said correction or repair or for the remainder of the two-year warranty period, whichever is longer.
- (b) In placing orders for equipment, the Contractor shall purchase such equipment only under a written guarantee from the respective manufacturers that the equipment supplied will function satisfactorily as an integral part of the completed Project in accordance with the Plans and Specifications. Furthermore, the Contractor shall require that the manufacturer agree in writing at the time an order of equipment is placed that manufacturer will be responsible for the proper functioning of the equipment in cooperation with the Contractor, and that whenever necessary during the installation period or tuning up period following construction period, the manufacturer will supply without additional cost to the City, such superintendence and mechanical labor and any adjustments and additional parts and labor needed to make the equipment function satisfactorily, even if the same was not shown on approved shop drawings.

**107.35 ACCEPTANCE**

- (a) *Partial Acceptance.* If, during the performance of the project, the Contractor satisfactorily completes a unit or portion of the Project, such as a structure, an interchange, or a section of road or pavement that can be used advantageously for traffic, the Project Manager may make final inspection of that unit. If the Project Manager finds that the unit has been satisfactorily completed in compliance with the Contract, the Contractor may be relieved of further responsibility for that unit except as otherwise provided in these general provisions. Partial acceptance shall not void or alter any of the terms of the Contract.

- (b) *Final Acceptance.* Upon notice from the Contractor of presumptive completion of the entire Project, the Project Manager will make an inspection. If the work provided for by the Contract has been satisfactorily completed, that inspection shall constitute the final inspection and the Project Manager will notify the Contractor in writing of final acceptance indicating the date on which the Project was inspected and accepted.

If the inspection discloses any unsatisfactory work, the Project Manager will give the Contractor a written list of the work needing correction. Upon correction of the work, another inspection will be made. If the work has been satisfactorily completed, the Project Manager will notify the Contractor in writing of the date of final inspection and acceptance. Final acceptance under this subsection does not waive any legal rights contained in the No Waiver of Legal Rights section of this Contract.

## **SECTION 108 PAYMENTS AND ACCEPTANCE OF WORK**

### **108.00 PAYMENTS AND RETAINAGE**

Payments will be made, and required retainage withheld if applicable, in accordance with this section as the work progresses at the end of each month or as soon thereafter as practicable in compliance with C.R.S. Title 24, Article 91, on statements made and approved by the Project Manager. In preparing statements, only completed work will be taken into consideration. No payment will be made for materials in storage and/or delivered to the site, unless otherwise approved by the City.

Payment for work performed by the Contractor under the Contract Documents will be made at the approved unit price or lump sum price for each of the several items as listed in the proposal and measured as hereinafter specified. Such payment shall compensate the Contractor for all costs in connection with furnishing all labor, equipment and material required and performing the operations necessary to complete the item in accordance with the Contract Documents. All incidental work essential to the completion of the Project in a workmanlike manner, and including cleanup and disposal of waste or surplus material, shall be accomplished by the Contractor without additional cost to the City. The cleanup and disposal of waste or surplus material shall be performed during construction or as soon after as is reasonably possible in order to better maintain the aesthetics and safety of the construction area. Payment will be made for the actual quantities constructed or installed, unless otherwise noted in these Contract Documents. However, any changes to plan quantity must be approved through proper Change Order procedures, said quantities being measured as specified in the Contract Documents.

- (1) If the Contract exceeds one hundred fifty thousand dollars (\$150,000.00), and is for the construction, alteration, or repair of any highway, public work, or public improvement, structure, and the Contractor has provided Performance and Payment Bonds: the City shall authorize partial progress payments of the amount due under this Contract monthly, or as soon thereafter as practicable, to the Contractor, if the Contractor is satisfactorily performing the Contract. If the City finds that satisfactory progress is being achieved during any period for which progress is to be made, the City may authorize payment to be made in full without withholding retainage. However, if satisfactory progress has not been made, the City may retain a maximum of ten percent (10%) of the amount of the requested payment until satisfactory progress is achieved. When the

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work is substantially complete, the City may retain from the remaining unpaid balance that amount the City Procurement Services Manager, at the advice of the Project Manager, considers adequate for protection of the City, suppliers, subcontractors, laborers, vendors, etc., provided that such retainage shall not exceed five percent (5%) of the amount due, and shall release to the Contractor all the remaining funds associated with completed and acceptable work.

If satisfactory progress has not been made the withheld percentage of the Contract price of any such work, improvement, or construction shall be retained on an invoice-to-invoice basis and shall not be cumulative. In other words, if the Contractor is not performing satisfactorily the City will hold ten percent (10%) of what is actually due to the Contractor. For example, if the Contractor is behind schedule and has successfully completed fifty percent (50%) of the work, the City will only pay forty percent (40%) of the invoice, withholding ten percent (10%) of what is due until the Contractor gets back on schedule.

- (2) Whenever a Contractor receives payment pursuant to this section, the Contractor shall make payments to each of the subcontractors of any amount actually received which were included in the Contractor's request for payment to the City for such subcontracts. The Contractor shall make such payments within seven (7) Calendar Days of receipt of payments from the City in the same manner as the City is required to pay the Contractor under this section if the subcontractor is satisfactorily performing under the Contract with the Contractor. The subcontractor shall pay all suppliers, sub-subcontractors, laborers, and any other persons who provide goods, materials, labor, or equipment to the subcontractor any amounts actually received which were included in the subcontractor's request for payment to the Contractor for such persons, in the same manner set forth in this subsection (2) regarding payments by the Contractor to the subcontractor. If the subcontractor fails to make such payments in the required manner, the subcontractor shall pay those suppliers, sub-subcontractors, and laborers interest in the same manner set forth in this subsection (2) regarding payments by the Contractor to the subcontractor.

At the time a subcontractor submits a request for payment to the Contractor, the subcontractor shall also submit to the Contractor a list of the subcontractor's suppliers, sub-subcontractors and laborers. The Contractor shall be relieved of the requirements of this subsection (2) regarding payment in seven (7) days and interest payment until the subcontractor submits such list. If the Contractor fails to make timely payments to the subcontractor as required by this section, the Contractor shall pay the subcontractor interest as specified by Contract or at the rate of fifteen percent (15%) per annum, whichever is higher, on the amount of the payment which was not made in a timely manner. The interest shall accrue for the period from the required payment date to the date on which payment is made. Nothing in this subsection (2) shall be construed to affect the retention provisions of any Contract.

- (3) If the Contractor is not progressing in accordance with the Project Schedule or not performing quality work in accordance with the specifications, the City Procurement Services Manager, at the advice of the Project Manager may withholding retainage up to and including ten percent (10%) of the total contract amount.

**108.01 PAYMENTS WITHHELD PRIOR TO FINAL ACCEPTANCE OF WORK**

The City may withhold or nullify the whole or part of any certificate of payment to such extent as may be necessary to protect it from loss caused by:

- (a) Defective work not remedied.
- (b) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor.
- (c) Failure of the Contractor to make payments properly to subcontractors or for material or labor.
- (d) Damage to another contractor.

When the above grounds are removed, payment will be made for amounts withheld because of them.

**108.02 ACCEPTANCE OF FINAL PAYMENT**

If the work is finally accepted by Project Manager under the terms and conditions of the Contract the entire balance found by the Project Manager to be due the Contractor, including the retained percentage, less any retention based on; (1) the Project Manager's estimate of the fair value of the claims against the Contractor; and (2) the cost of completing the incomplete or unsatisfactory items of work with specified amounts for each incomplete or defective item of work; and (3) retentions required by law, shall be due and payable to the Contractor. The date of completion is the date as specified in the Certificate of Completion issued by the Project Manager.

Upon completion of the work under the Contract and before the Contractor will receive or be paid for the Project Manager's final statement, the City Procurement Services Division shall post a notice on the website [www.coloradosprings.gov](http://www.coloradosprings.gov) that the City has accepted such work as completed according to the Plans and Specifications and rules set forth in the Contract; that the Contractor is entitled to final settlement; that after the date specified in the Notice, the City will pay the full balance due under the Contract; and that persons having claims for labor or material furnished the Contractor must present their claim to the City Procurement Services Division prior to the date specified for such payment. Nothing herein shall be construed as relieving the Contractor and the Sureties on the Contractor's bonds from any claim or claims for work or labor done or materials or supplies furnished in the execution of the Contract.

The making and acceptance of the final payment shall constitute a waiver of all claims by the Contractor against the City.

If, after the work has been substantially completed, full completion thereof is materially delayed through no fault of the Contractor, and the Project Manager so certifies, the City may, upon Certificate of Completion by the Project Manager, and without terminating the Contract, make payment of the balance due for that portion of the work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, and acceptance of the payment shall constitute a waiver of all claims by the Contractor but acceptance of the work shall not constitute a waiver of City claims against the Contractor.

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Advertising for Final Payment and processing of the Final Pay Request shall not take place until after the Contractor has submitted Sales and Use Tax Forms to the City and said forms have been reviewed and approved by the City Sales Tax Office.

## SCHEDULE E

## TECHNICAL SPECIFICATIONS

The Technical Specifications for this project shall be the City of Colorado Springs; Engineering Division "Standard Specifications" (herein referenced as Standard Specifications) revised March 2005. The following Special Technical Specifications take precedence over, supplement, or modify the Standard Specifications.

## INDEX OF REVISIONS AND ADDITIONS

## SECTION REVISED OR ADDED

- 500 CONCRETE
- 630 STORM DRAINS AND CULVERTS
- 800 WORK ZONE TRAFFIC CONTROL
- 900 MOBILIZATION
- 900 SEEDING, FERTILIZER, BLANKET, AND MULCHING
- 910 EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION
- 920 WATER CONTROL AND DEWATERING
- 925 CLEARING AND GRUBBING
- 950 CONSTRUCTION SURVEYING

## REVISION OF SECTION 500, CONCRETE

1. Subsection 506, Testing of Concrete, is hereby revised by adding the following:

The Engineer shall have the authority to order concrete tests as required with the City responsible to pay an approved testing laboratory to perform the tests. Any failed tests shall require corrective action by the contractor and any corrective work and retesting will be at the expense of the Contractor. The Contractor shall provide access to the work and furnish labor and facilities to accommodate inspections and tests.

2. **Subsection 509.02**, Combination Curbs and Gutters, is hereby revised by adding the following:

M. Removal. Curb and gutter shall be removed to the nearest existing construction joint. Lengths of newly installed curb and gutter shall be equally spaced for the length of the removed sections. Where saw cutting is required, the work shall be performed with an approved cutting machine. The new asphalt pavement shall be laid adjacent to the gutter with the joint between the lip of gutter and asphalt pavement being filled to full depth of curb section with asphalt pavement.

3. **Subsection 509.03**, Sidewalk, is hereby revised by adding the following:

I. Removal. Where required for construction, concrete sidewalk shall be removed by making saw cuts in straight lines and at right angles to the alignment of the walk. The saw cut shall be made to a minimum depth of four (4) inches. If the saw cut would fall within thirty (30) inches of a construction joint, expansion joint, or edge, the concrete shall be removed to the joint or edge.

4. Revisions of Drawing No.D-10-R Inlet Details & Notes, Note 16) is hereby revised as follows:

16) Minimum concrete strength = 4000 psi @ 28 days, unless otherwise approved by the Engineer, and shall contain ASTM C 150, Type IA or IIA cement.

## ADDITION OF SECTION 510 – CONCRETE PAVEMENT FOR TRAIL SURFACING

## 511 GENERAL

- A. This section shall apply to construction of steel and fiber reinforced Portland Cement concrete pavement for trail surfacing

**512 CONCRETE MATERIALS**

**A. Cement**

Portland Cement shall conform to the specifications for Portland Cement 9 (ASTM C-150) and specifications for air-entrained Portland Cement (ASTM C-175 or C-595) and shall be Type IIA (Air-Entraining) cement, unless sulfate conditions allow otherwise. Table 2.2.3 in Chapter 2.2 of ACI 201 presents cement recommendations for sulfate resistances. In addition to the standard chemical requirements for Portland cement in ASTM C-150, the maximum percent of alkalis shall be as specified in Table 2 of ASTM C-150 for low alkali cement. Other types of cement or admixtures are only to be used upon approval by the Owner's Representative.

**B. Aggregates**

The amounts and proportions of fine and coarse aggregates shall be such as to produce a plastic, workable mix which can be readily placed into the corners and angles of the forms and around reinforcement and other embedded fixtures without undue accumulation of water or laitance on the surface, and such that there will be no honeycombing in the structure. Proportions of fine and coarse aggregates shall be such that the ratio of the coarse to the fine aggregate shall not be less than one (1) nor more than two (2).

If in the judgment of the Owner's Representative, based on laboratory tests, concrete aggregates from a given source are detrimentally reactive with alkalis in Portland Cement, they shall be used in concrete in combination with low-alkali cement only.

Concrete aggregates shall consist of sand-gravel, gravel, crushed stone, or limestone; the particles shall be clean, hard, tough, durable, of uniform quality, free of any soft, thin, or elongated pieces, disintegrated stone, dirt, organic or other injurious materials occurring either free or as a coating. All aggregate must be supplied from a source approved by the Owner's Representative. Aggregate shall be made of the following sub sections:

**Fine Aggregate:** Fine aggregate shall conform to ASTM C-33. Fine aggregate shall consist of sand or other inert materials, or combinations thereof approved by the Owner's Representative, and having hard, strong, durable particles, free from adherent coating. Fine aggregate shall be thoroughly washed to remove shale, coal, mica, clay, loam, alkali, organic matter or other deleterious matter.

1. Deleterious Substances: The amount of deleterious substances in the washed aggregate shall not exceed the following values:
 

a. Clay Lumps & Friable Particles, % by weight	3.0 MAX
b. Coal & Lignites, % by weight	1.0 MAX
c. Friable Particles, % by weight	1.0 MAX
d. Sand Equivalent	75 MAX
e. Fineness Modulus	2.3-3.1 MAX
f. Sodium Sulfate Soundness, % by weight	10 MAX
  
2. Grading: Fine aggregate shall be regularly graded from coarse to fine in two (2) sizes and when tested by means of the U.S. Standard, sieves shall conform to the following requirements expressed as percentages by weight:

Sieve Size or Test Procedure	Percent Passing or Test Requirement *(Concrete Sand)
3/8"	100
No. 4	95-00
No. 8	80-00
No. 16	50-85
No. 30	25-60
No. 50	5-30

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No. 100	0-10
No. 200	**0-3

\*\*The fine aggregate shall have not more than 45% passing any sieve and retained on the next consecutive sieve.

**Coarse Aggregate:** Gravel and crushed stone shall conform to ASTM C-33. Coarse aggregate shall consist of gravel, crushed stone, or other inert material or combinations thereof approved by the Owner's Representative, and having hard, strong, durable pieces free from adherent coating. Coarse aggregate shall be thoroughly washed of clay, loam, bark, sticks, alkali, organic matter, shale, coal, mica, or other deleterious material.

1. Deleterious Substances. The amount of deleterious substances in the washed aggregate shall not exceed the following values:
  - a. Clay Lumps & Friable Particles, % by weight 3.0 MAX
  - b. Coal & Lignites, % by weight 0.5 MAX
  - c. Sum of Clay Lumps, Friable Particles and Chert, % by weight 5.0 MAX
  - d. Abrasion, % by weight 50 MAX
  - e. Sodium Sulfate Soundness, % by weight 12 MAX
  
2. Grading. Coarse aggregate, when tested in conformity with ASTM C-136 shall conform to the NO. 57 gradation shown in the table below.

Sieve size or Test Procedure	Percent Passing (by weight)		
	No. 357	No. 467	No. 57
2 1/2"	100	---	---
2"	95-100	100	---
1 1/2"	---	95-100	100
1"	35-70	---	95-100
3/4"	---	35-70	---
1/2"	10-30	---	25-60
3/8"	---	10-30	---
No. 4	0-5	0-5	0-10
No. 8	---	---	0-5
No. 200	*1.0 MAX	*1.0 MAX	*1.0 MAX

**C. WATER**

Water used in concrete shall be potable, clean, and free from deleterious amounts of acids, alkalis, or any organic materials.

**D. ADMIIXTURES**

1. General: Admixtures certified by manufacturer to contain no more than 0.1 percent water-soluble chloride ions by mass of cement and to be compatible with other admixtures. Calcium Chloride shall not be used as an antifreeze agent. Calcium Chloride as an accelerating agent in amounts not to exceed 1.5% by weight of cement may be used upon the approval of the Owner's Representative.
2. Air-Entraining Admixture: ASTM C260.
3. Water-Reducing Admixture: ASTM C 494, Type A.
4. High-Range, Water-Reducing Admixture: ASTM C 494, Type F.
5. Water-Reducing and Accelerating Admixture: ASTM C 494, Type E.
6. Water-Reducing and Retarding Admixture: ASTM C 494, Type D.

**E. FIBER REINFORCEMENT**

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1. Synthetic Fiber: Fibrillated polypropylene fibers engineered and designed for use in concrete pavement, complying with ASTM C 1116, Type III ½ to 1-1/2 inches long.
2. Synthetic Fiber: Fibrillated or monofilament polypropylene fibers engineered and designed for use in concrete pavement, complying with ASTM C 1116, Type III, ½ to 1-1/2 inches long.
3. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Fibrillated Fibers:
    - Fibrasol F; Axim Concrete Technologies.
    - Fibermesh; Fibermesh, Div. Of Synthetic Technologies.
    - Forta; Forta Corporation.
    - Grace Fibers: W.R. Grace & Co., Construction Products Div.
  - b. Monofilament Fibers:
    - Fibrasol IIP; Axim Concrete Technologies.
    - Fiberstrand 100; Euelid Chemical Co.
    - Fibermix Stealth; Fibermesh, Div. Of Synthetic Industries.
    - Forta Mono; Forta Corporation.
    - Grace MicroFiber; W.R. Grace & Co., Construction Products Div.
    - Polystrand 1000; Metalcrete Industries.

### F. STEEL REINFORCEMENT

Reinforcement bars shall be in conformance with ASTM A-615 Grade 40

### G. CURING MATERIALS

- a. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. Dry.
- b. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- c. Clear Waterborne Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.
- d. White Waterborne Membrane-Forming Curing Compound: ASTM C 309, Type2, Class B.

### H. RELATED MATERIALS

- a. Expansion- and Isolation-Joint Filler Strips: ASTM D 1751, asphalt-saturated cellulose fiber.
- b. Chemical Surface Retarder: Water-soluble, liquid set retarder with color dye, for horizontal concrete surface application, capable of temporarily delaying final hardening of concrete to a depth of 1/8 to ¼ inch.

## 513 CONCRETE MIXES

- A. Prepare design mixes, proportioned according to ACI211.1 and ACI301, for each type and strength of normal-weight concrete determined by either laboratory trial mixes or field experience.
- B. Use a qualified independent testing agency for preparing and reporting proposed mix designs for the trial batch method.
  1. Do not use Owner's field quality-control testing agency as the independent testing agency.
- C. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at a point of placement having an air content of 4 to 6 percent.
- D. Synthetic Fiber: Uniformly disperse in concrete mix at manufacturer's recommended rate, but not less than 1.5 lb./cu. Yd.

## 514 QUALITY OF CONCRETE

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A. The quality of concrete shall meet or exceed the following:

Specified Compressive Strength at 28 Days 4000 psi	Maximum Water/Cement Ratio by Weight 0.45
Minimum Cement Content per Cubic Yard of Concrete 564 lbs.	

B. The proportioning of aggregate to cement shall be such as to produce a good workable mix and the slump shall be a maximum of four inches (4") as per ASTM C-143. The equipment for batching of the aggregates, cement, water, and air-entraining agent shall be such that accurate control can be held over the various constituents.

C. Ready-mixed concrete shall comply with ASTM C-94 for ready-mixed concrete and the following specifications:

- a. Time of Haul: Concrete transportation in truck mixers or truck agitators shall be delivered to the site of work and completely discharged within a period of ninety (90) minutes after the cement comes in contact with the mixing water or with the combined aggregates when the combined aggregates contain free moisture in excess of 2% by weight. If hot weather exists causing the temperature of the concrete to rise above 90 degrees Fahrenheit, then the time of haul shall be within a period of sixty (60) minutes.
- b. Production and Delivery: The production and the delivery of ready-mixed concrete shall be such that placing and finishing shall be continuous in so far as the operations require.

**515. CONSTRUCTION**

**515.1 EDGE FORMS AND SCREED**

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces. Use flexible or curved forms for curves of a radius 100 feet or less.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
- C. Forms shall be cleaned and oiled before concrete is placed against them. The alignment and grade of forms shall be checked and approved immediately before placing the concrete.
- D. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.

**515.2 STEEL REINFORCEMENT**

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating reinforcement and with recommendations in CRSI's "Placing Reinforcing Bars" for placing and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover of 2" to reinforcement.
- D. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 2-inch overlap to adjacent mats.

**515.3 JOINTS**

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- A. General: Construct construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
1. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour, unless pavement terminates at isolation joints.
1. Continue reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
  2. Provide tie bars at sides of pavement strips where indicated.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
1. Locate expansion joints at intervals of 50 feet, unless otherwise indicated.
  2. Extend joint fillers full width and depth of joint.
  3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
  4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
  5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
  6. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- D. Install dowel bars and support assemblies at joints where indicated. Use 5/8 inch cardboard tube or PVC. Lubricate or asphalt-coat one-half of dowel length to prevent concrete bonding to one side of joint.
- E. Contraction Control Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to a least one fourth of the concrete thickness at 10 foot spacing as follows:
1. Grooved Joints: Form contraction joints after floating by grooving and finishing each edge of joint with groover tool with a 1/2 inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover marks on concrete surfaces.
  2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8 inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks. Within 24 hours of initial pour.
- F. Edging: Tool edges of pavement, gutters, curbs and joints in concrete after initial floating with an edging tool to a 1/2 inch radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.

#### 515.4 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcement steel, and items to be embedded or cast in. Notify other trades to permit installation of their work. Owner's Representative needs to be notified 24 hours to inspect forms prior to pouring concrete.

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- B. Remove snow, ice, or frost from sub-base surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten sub-base to provide a uniform dampened condition at the time concrete is placed. Do not place concrete around manholes or other structures until they are at the required finish elevation and alignment.
- D. Comply with requirements and with recommendations in ACI 304R for measuring, mixing, transporting, and placing concrete.
- E. Do not add water to concrete during delivery, at Project site, or during placement.
- F. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- G. Consolidate concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures to consolidate concrete according to recommendations in ACI309R.
  - 1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.
- H. Base course is to be placed if indicated on drawings and is to be 3/8 +/- crusher waste or gravel to Standard Class 6.
- I. Any sleeving under concrete surfaces shall be stamped into surfaced with an "S" on each end of the sleeve.
- J. Screed pavement surfaces with a straightedge and strike off. Commence initial floating using bull floats or darbies to form an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing
- K. Cold-Weather Placement: Comply with ACI306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
  - 1. Concrete shall not be placed in cold weather unless the ambient temperature has reached 40 degrees Fahrenheit by 9:00 a.m., and the temperature is rising. In freezing weather, suitable means must be provided to maintain the temperature of the concrete at 50 degrees Fahrenheit or above for 7 days after placement. Uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F and not more than 80 deg F at point of placement.
  - 2. Do not use frozen materials or materials containing ice or snow. All reinforcement, forms, fillers, and ground that the concrete will come in contact with shall be free of ice and snow.
  - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix designs.
- L. Hot-Weather Placement: Place concrete according to recommendations in ACI305R and as follows when hot-weather conditions exist:
  - 1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
  - 2. Cover reinforcement steel with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
  - 3. Fog-spray forms, reinforcement steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

**515.5 CONCRETE FINISHING**

- A. General: Wetting of concrete surfaces during screeding, initial floating, or finishing operations is prohibited.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and the concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots, and fill low spots. Refloat surface immediately to uniform granular texture.
- C. Medium-to-Fine-Textured Broom Finish: Draw a soft bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture. Or as otherwise indicated on drawings.

**515.6 CONCRETE PROTECTION AND CURING**

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI306.1 for cold-weather protection and follow recommendations in ACI305R for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb./sq. ft x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Begin curing after finishing concrete, but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination to these as follows:
  - 1. Keep surfaces continuously moist for not less than seven days with the following materials and methods:
    - a. Continuous water-fog spray.
    - b. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
    - c. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
    - d. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

**515.7 PAVEMENT TOLERANCES**

- A. Comply with tolerances of ACI 117 and as follows:
  - 1. Elevation: 1/4 inch
  - 2. Thickness: Plus 3/8 inch minus 1/4 inch.
  - 3. Surface: Gap below 10-foot-long, unlevelled straightedge not to exceed 1/4 inch.
  - 4. Lateral Alignment and Spacing of Tie Bars and Dowels; 1 inch.
  - 5. Vertical Alignment of Tie-Bars and Dowels: 1/4 inch.

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6. Alignment of Tie-Bar End Relative to Line Perpendicular to Pavement Edge: 1/2 inch.
7. Alignment of Dowel-Bar End Relative to Line Perpendicular to Pavement Edge: Length of dowel 1/4 inch per 12 inches.
8. Joint Spacing: 3 inches.
9. Contraction Joint Depth: Plus 1/4 inch, no minus.
10. Joint Width: Plus 1/8 inch, no minus.

**516 FIELD QUALITY CONTROL**

- A. Testing Agency: Owner will engage a qualified testing and inspection agency to sample materials, perform tests, and submit test reports during concrete placement. Sampling and testing for quality control may include those specified in this Article.
- B. Testing Services: Testing shall be performed according to the following requirements:
  1. Sampling Fresh Concrete: Representative samples of fresh concrete shall be obtained according to ASTM C172, except modified for slump to comply with ASTM C94.
  2. Slump: ASTM C 143; one test at point of placement for each compressive-strength test, but not less than one test for each day's pour of each type of concrete. Additional tests will be required when concrete consistency changes.
  3. Air Content: ASTM C231, pressure method; one test for each compressive-strength test, but not less than one test for each day's pour of each type of air-entrained concrete.
  4. Concrete Temperature: ASTM C1064; one test hourly when air temperature is 40 degrees F and below and 80 degrees F and above, and one test for each set of compressive-strength specimens.
  5. Compression Test Specimens: ASTM C31/C 31M; one set of four standard cylinders for each compressive-strength test, unless otherwise indicated. Cylinders shall be molded and stored for laboratory-cured test specimens unless field-cured test specimens are required.
  6. Compressive-Strength Tests: ASTM C39; one set for each day's pour of each concrete class exceeding 5 cu. Yd, but less than 25 cu. Yd., plus one set for each additional 50 cu. Yd. One specimen shall be tested at 7 days and two specimens at 28 days; one specimen shall be retained in reserve for later testing if required.
  7. When frequency of testing will provide fewer than five compressive-strength tests for a given class of concrete, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
  8. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, current operations shall be evaluated and corrective procedures shall be provided for protecting and curing in-place concrete.
  9. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive compressive-strength test results equal or exceed specified compressive strength and no individual compressive-strength test result falls below specified compressive-strength by more than 500 psi
  10. In the event the initial 28 day cylinder should fail, the remaining two cylinders should be strength tested after 45 days of curing time.
  11. Samples for slump and air-content testing should be taken for each truck delivery or not less than each 12 cubic

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yards where site batching is performed. The Owner's Representative may vary the frequency of sampling and testing depending on site conditions. The preparation, handling, storage and testing procedures of all samples shall be in conformance with the applicable ASTM and AASHTO standards.

12. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mix type, mix time, quantity, and amount of water added.
- C. Test results shall be reported in writing to Owner's Representative, concrete manufacturer, and Contractor within 24 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing agency, concrete type and class, location of concrete batch in pavement, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7- and 14- day tests.
- D. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Owner's Representative but will not be used as the sole basis for approval or rejection.
- E. Additional Tests: Testing agency shall make additional tests of the concrete when test results indicate slump, air entrainment, concrete strengths, or other requirements have not been met, as directed by Owner's Representative. Testing agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed.

### 517 REPAIRS AND PROTECTION

- A. The Contractor is to remove and replace concrete pavement that is broken, damaged, or defective, or otherwise does not meet requirements in this Section. Contractor is required to repair or replace any defects that occur during the contract period as set forth in the contract documents.
- B. Work showing: a patch, chips, cracking appearance, spalling, significant settling, or other finish blemishes or apparent "lap" marks of improper troweling will be rejected, removed and replaced at the Contractor's expense.
- C. The Contractor shall erect barricades, snow fencing, or take appropriate measures to totally protect concrete until it has gained enough strength that it is not easily damaged or defaced. Any area marked or defaced in any manner shall be removed to the nearest expansion or contraction joint and be replaced at no additional costs to the Owner.
- D. No patched or cover materials will be accepted on a new pour, to hide any defects in original surface. Only with prior approval from Owner's Representative.
- E. Drill test cores where directed by Owner's Representative when necessary to determine magnitude of cracks of defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
- F. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- G. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

### 518 REQUIRED SUBMITTALS

- A. Product Data: For each type of manufactured material and product indicated.
- B. Design Mixes: For each concrete pavement mix. Include alternate mix designs when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.

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C. Material Certificates: Signed by manufacturers certifying that each of the following materials complies with the project requirements for the following materials:

1. Cementitious materials and aggregates.
2. Steel reinforcement and reinforcement accessories.
3. Fiber reinforcement.
4. Admixtures.
5. Curing Compounds.
6. Joint fillers.

**REVISION OF SECTION 620 DRAINAGE CHANNELS**

Section 620 of the Standard Specifications is hereby revised as follows:

In Subsection 621.02, delete the Surface Tolerance Table and replace with the following:

<u>Surfaces</u>	<u>Tolerance</u>
Side Slopes	± 5%
Profile of invert of channel	± 0.3 foot

Revise Subsection 621.04 to delete the words “at no additional cost to the owner” and replace with “all of the costs for dewatering shall be included in the Lump Sum bid price for Water Control and Dewatering”.

Under Subsection 621.05 Add the Following:

Excavation and Trench Construction

Excavations into the on-site soils will likely encounter relatively shallow groundwater and caving soils. The contractor is responsible for designing and constructing stable, temporary excavations as required to maintain stability of both the excavation sides and bottom. All excavations should be sloped or shored in the interest of safety following local, and federal regulations, including current OSHA excavation and trench safety standards.

Under Subsection 621.05 Modify the Following:

In Paragraph B modify the compaction standard for cohesionless soils to be 95% maximum Standard Proctor dry density (ASTM D698) at +-3% optimum moisture content.

Add Subsection 621.055 “**Muck Excavation and Replacement**”

Where excavation to the finished grade or subgrade results in a subgrade consisting of unsuitable saturated soil, the **Engineer** may require the **Contractor** to remove and replace the unsuitable material with approved material compacted in a maximum of 8 inch loose lifts to a minimum of 95% maximum dry density Standard Proctor (ASTM D698) at +3 optimum moisture content to re-establish the finished grade or sub-grade. Unstable/unstable material shall be removed from the project site and disposed of by the **Contractor**. Removal and replacement of unstable material shall only be completed at the direction of the **Engineer** and shall be paid for under Muck Excavation and Replacement only if approved by the **Engineer** in writing prior to the work taking place.

The contractor shall not be paid for Muck Excavation that is required due to inadequate dewatering or excavation practices.

Under Subsection 622.03 Add the Following:

When embankment is to be placed and compacted on side slopes, or when new embankment is to be compacted against existing embankments, or when embankment is built 1/2 width at a time, the slopes that are steeper than

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4:1 when measured longitudinally or at right angles to the adjacent ground shall be continuously benched over those areas where it is required as the work is brought up in layers. Benching shall be well keyed and where practical a minimum of 8 feet wide. Each horizontal cut shall begin at the intersection of the original ground and the vertical sides of the previous cuts. Material thus cut out shall be re-compacted along with the new embankment material at **Contractor's** expense. An exception to this provision will be made for areas where the total depth of embankment will be less than 6" thick. In these areas, the embankment can be compacted on the slope provided that the foundation material is roughened and moisture conditioned prior to placement of the embankment material and the compaction standards are met.

Frozen materials shall not be used in construction of embankments.

Excavation or Embankment (Fill) work either completed or in a stage of completion that is either eroded or washed away or becomes unstable due to either rains, snow, snow melt, channel flows or lack of proper water control shall be either removed and replaced, re-compacted or reshaped as directed by the **Engineer** and in accordance with the Drawings and Specifications at **Contractor's** sole expense. Removed unsuitable materials shall be hauled away and disposed of at **Contractor's** expense. Placing of replacement materials for removed unsuitable materials shall be purchased, placed and compacted at **Contractor's** expense. All embankment fill material shall be compacted in a maximum of 8 inch loose lifts to a minimum of 95% maximum dry density standard proctor per ASTM D698. Moisture content shall be within a range of  $\pm 3\%$  optimum moisture content.

Proof rolling with a heavy rubber tired roller or probing with a steel rod will be required to verify stable foundations material, if designated on the Drawings or when ordered by the **Engineer**. Proof rolling shall be done after specified compaction has been obtained. Areas found to be weak and those areas which failed shall be ripped, scarified, wetted if necessary, and re-compacted to the requirements for density and moisture at **Contractor's** expense.

Proof rolling or probing shall be done with equipment and in a manner acceptable to the **Engineer**. Proof rolling and probing as shown on the Drawings or as ordered by the **Engineer** shall not be measured and paid for separately, but shall be included in the unit prices bid for the work.

#### Modify Subsection 624.01 "Riprap Channel"

Rubble concrete shall not be used as riprap on this project.

#### Add Subsection 624.015 "Soil Rip Rap"

##### Material

1. Rock requirements are to comply with the standard specifications section 624.01 except that concrete rubble is not allowed to be used.
2. The soil material shall be native or topsoil and mixed with sixty-five percent (65%) riprap and thirty five percent (35%) soil by volume.
3. Soil riprap shall consist of a uniform mixture of soil and riprap without voids.

##### Construction

1. Adjacent stockpiles of riprap and soil shall be created and mixing done at the stockpile location, not at the location where soil riprap is to be placed.
2. Mix thirty-five percent (35%) soil by volume with stockpiled riprap, using additional moisture and control procedures that ensure a homogenous mixture; where the soil fills the inherent voids in the riprap without displacing riprap.
3. With prior approval of ENGINEER, layering the riprap and soil instead of premixing may be allowed if the native soil is granular.

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4. Place a first layer of smaller soil riprap of approximate  $d_{50}$  thickness. Then place the top layer with surface rocks that are largely  $d_{50}$  or greater, filling voids as necessary with smaller planted riprap. The top layer shall be placed in a manner that creates a smooth plane surface.
5. The mixture shall be consolidated by large vibratory equipment or backhoe bucket to create a tight, dense interlocking mass.
6. The soil shall be further wetted to encourage void filling with soil.
7. Any large voids shall be filled with rock and small voids filled with soil.
8. Excessively thick zones of soil prone to washing away shall not be created (for example, no thicknesses greater than six (6) inches).
9. For buried soil riprap, the top surface shall be covered with four (4) inches of topsoil such that no rock points are protruding.
10. The final surface shall be thoroughly wetted for good compaction, smoothed and compacted by vibrating equipment; the surface shall then be hand raked to receive planting or seeding.

#### **ADDITION OF SECTION 627 - MOBILIZATION**

Section 627 is hereby added to the Standard Specifications and shall include the following:

##### ***627.01 Description***

Mobilization shall consist of the preparatory work and operations in mobilizing for beginning work on the Project. This work shall include, but not be limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to the Project Site, and for the establishment of temporary offices, building facilities, utilities, testing laboratories, safety equipment and first aid supplies, sanitary and other facilities, as required by these Specifications, and State and local laws and regulations. The costs of bonds, permits and any required insurance and other pre-construction expense necessary for the start of the work, excluding the cost of construction materials, shall also be included in this item.

**635.04 Thermoplastic Pipe**

The following types of thermoplastic pipes shall conform to AASHTO Interim Specifications Bridges Section 18, soil - thermoplastic pipe interaction systems.

ASTM F-894 "Polyethylene Large Diameter Profile Wall Sewer and Drain Pipe". The minimum allowable pipe wall thickness shall be ring stiffness constant Class 100 for pipe sizes 18 through 30 inch diameter and Class 160 for pipe sizes 33 through 48 inch diameter. Maximum allowable size shall be 48 inch.

AASHTO M-294 "Corrugated Polyethylene Pipe 12 to 36 inch Diameter" with allowable sizes of 15 through 36 inch diameter maximum. Allowable pipe classification shall be Type S - full circular cross-section with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be annular or Helical. Joints for ASTM F-794, ASTM F-894 and AASHTO M-278 pipe shall be gasketed type integral Bell and Spigot.

Joints for AASHTO M-294 pipe shall be a coupling type with gasketed joints. Coupling shall be bell and spigot. Split collar couplings to be used only if specifically approved in writing by the City Engineer.

**635.07 Joint Material - Thermoplastic Pipe**

All pipe joints shall be watertight. Split collar joints are not allowed unless project Engineer approves.

The following specifications apply to pipe provided under ASTM F-794, ASTM F-894 and AASHTO M-278; ASTM D-3212 "Specification for Drain and Sewer Plastic Pipes using Flexible Elastomeric Seals" and ASTM F-477 "Specifications for Elastomeric Seals (gaskets) for Joining Plastic Pipe".

The following specification applies to pipe provided under AASHTO M-294; ASTM D-1056 "Flexible Cellular Material - Sponge or Expanded Rubber" closed cell sponge rubber or mastic sealants conforming to Federal Specifications SS-S-210A "Sealing Compound, Preformed Plastic, for Expansion Joints and Pipe Joints" when using Split Collar Joints. Also, ASTM F-477 "Specification for Elastomeric Seals (gaskets) for Joining Plastic Pipe when using Bell and Spigot Joints".

**635.14 Bedding Material - Granular**

Where called for on plans or otherwise specified by bedding class, bedding material for pipe and culvert shall consist of clean, granular material meeting the requirements for structural backfill. Material shall be:

- a. Clean, Crushed gravel or crushed rock
- b. Unfrozen, friable, free of clay balls, organic matter and other deleterious materials
- c.  $\frac{3}{4}$  -Inch maximum particle size
- d. Well graded from coarse to fine, containing sufficient fines to bind materials when compacting, but with a maximum of 8 percent by weight passing the No. 200 sieve, as determined by ASTM C117.

The material shall have a liquid limit not exceeding 35 and a plasticity index not over 6 when tested in accordance with AASHTO T-89 and T-90 respectively.

**637.06 Bedding**

FOUNDATION PREPARATIONS. The pipe and culvert installation shall be founded on suitable supporting material to assure that the conduit will maintain its alignment and integrity at the joints. For corrugated metal pipe and thermoplastic pipe, the foundation material should be somewhat yielding to be compatible with the characteristics of flexible conduits.

The conduit shall not be installed directly on muck, rock, large stones, uncontrolled fill, debris or other unsuitable materials as determined by the Engineer. Where these conditions exist the trench shall be overexcavated below and either side of the conduit to a dimension as directed by the Engineer and suitable granular backfill material shall be installed as specified. If over-excavation occurs below the established grade, the area so excavated shall be backfilled with granular material and compacted to a minimum of 90% modified Proctor (AASHTO T-180) or 95% standard Proctor (AASHTO T-99) at 2%+ optimum moisture content. The minimum over-excavation below the conduit shall be 6 inches in rock and all other unsuitable materials.

Where free flowing ground water is encountered in the trench, a subdrain may be required to prevent "piping" along the conduit. The subdrain requirements shall be as determined by the Engineer. For thermoplastic pipe, installation methods recommended by the pipe manufacturer shall be employed to prevent floatation of the pipe.

**Initial Backfill (Shading) for HDPE:**

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The pipe shall be completely bedded and shaded in granular material with a minimum cover over the pipe of 12 inches. Granular bedding material shall be provided as noted in this contract. All Initial Backfill against the pipe shall be free from stones with a dimension no greater than 1- ½ inches for flexible pipe. Allowable granular material for shading of thermoplastic pipe and in direct contact with the pipe shall be as defined in ASTM D-2321:

### CLASS I

Angular Graded Stone, 1/4" to 1-1/2"

### CLASS II

Coarse sands and gravels with maximum particle size of 1-1/2", including variously graded sands and gravels containing small percentages of fines, generally granular and non-cohesive.

Material shall be compacted to a minimum of 95% Standard Proctor Density. Material placed from bottom of pipe up to springline shall be firmly tamped under the haunches of the pipe. The remainder of the material shall be compacted by hand or mechanical tamping equipment in lifts of approximately 6 inches thick and brought up uniformly on both sides of the pipe to the cover noted above. The placement and compaction of backfill should be continuously supervised to assure that the required conditions are maintained for pipe integrity, support and dimensional tolerance.

### 637.07 Backfilling

Where a sheepsfoot or vibratory roller is employed, a minimum of 3 feet of material must be provided over the pipe. No stones larger than 6 inches shall be allowed within 2 feet of the pipe. A hydro hammer shall not be utilized for trench compaction over flexible storm drain pipe.

Jetting or ponding shall not be allowed for cohesive soils but may be allowed for non-cohesive soils if approved by the Engineer.

Unless otherwise specified by the Engineer, trench backfill may consist of unclassified material extending from a point 12 inches above the pipe to the finish grade or roadway subgrade. Backfill material shall be placed in the trench in lifts of a maximum 8 inch uncompacted thickness within the right-of-way or under roadway surfaces. Each lift shall be compacted not less than:

- A. For cohesive soils, 90% Modified Proctor at +2% of optimum moisture content or 95% Standard Proctor at + 2% of optimum moisture content.
- B. For non-cohesive soils, 92% Modified Proctor at + 2% of optimum moisture content or 97% Standard Proctor at + 2% of optimum moisture content.
- C. For expansive soils, 88% Modified Proctor at 3% above optimum moisture content or 93% Standard Proctor at 1% above optimum moisture content. In areas other than roadway surfaces, areas unaffected by settlement, or as otherwise specified by the Engineer, the backfill shall be placed in lifts as required to achieve a minimum density of 85% Standard or 90% Modified Proctor.

Frequency of density testing for trenches shall be as established by Section 206 "Compaction of Utility Trenches." The depth and location of compaction tests shall be determined by the Project Engineer to assure conformance of these specifications throughout the work.

Settlement of trench backfill, or facilities constructed over trench backfill will be considered a result of defective compaction of trench backfill.

### 638 MEASUREMENT AND PAYMENT

The contract price for each item of work noted in the Bid Proposal shall be full compensation for furnishing all materials, tools, equipment, installation and labor necessary to construct the storm drain, culvert and appurtenances in accordance with the plans and the specifications.

The work will include but is not limited to testing of soils, materials, and in-place construction, dewatering, protection of utilities, bracing and shoring, traffic control, disposal of surplus excavated materials, storage, delivery, hauling, cleaning of the pipeline and construction site and all other requirements of the General Provisions of these Specifications or as otherwise noted in the Special Provisions. Where noted, surface restoration, pavement replacement, and utility relocation will be separate pay items.

The following pay units as noted in the Bid Proposal or As-Built field measurement shall include the method of measurement as described below and shall be U.S. Standard

**B16-149 NS PIKES PEAK IMPROVEMENTS STORM DRAIN AND POTABLE WATER**

Measure.

**Storm Drain Pipe and Culvert Pipe. (Linear Foot)**

**Measurement**

Shall be measured on the horizontal plane along the center line of the pipeline. Measurement of pipeline lengths shall be from the inside face of the junction box or inlet. Linear foot measurement shall include elbows, bends, tees and special fittings. Measurement shall include gaskets, sealants, couplings, coatings and linings, bedding materials, excavation and trench backfill to finished surface or pavement subgrade. Special fittings, connectors or prefabricated bends, shall be as noted in the Bid Proposal. Boring, jacking or tunneling of pipe along with boring pits and all associated work shall be measured separately.

**Manholes, Precast Concrete. (each)**

Where vertical dimensions are noted on the Bid Proposal or where field measured, heights shall be from the lowest invert to the top of frame and cover. Measurement shall include the base, invert paving, eccentric cone or flat slab, adjusting rings, frame and cover, steps and sealants. Included is excavation and backfill.

**Box Manhole or Junction Box, Cast in Place. (each)**

Measurement shall include all concrete, steel reinforcement, invert paving, precast risers and cone, adjusting rings, frame and cover, steps and sealants. Included is excavation and backfill and formwork.

**Inlets. (each)**

Measurement for cast in place construction shall include all materials indicated on the Standard Detail including the transition gutters and frame and cover. Included is any granular bedding material specified. Included is excavation, backfill and formwork.

Unclassified Excavation. No separate measurement for unclassified excavation will be made for work associated with pipeline and appurtenant structures. The cost of this item will be included with the Bid Proposal price of the work item unless otherwise noted.

**REVISIONS TO SECTION 800 – WORK ZONE TRAFFIC CONTROL**

Delete section 804 – Construction Staging, and replace with the following:

The Contractor shall submit Traffic Control Plans for approval by the City Traffic Engineering Division. The Traffic Control Plans shall be approved by the City Traffic Engineering Division prior to the commencement of any construction for this project. The contractor shall schedule work in such a manner to comply with the requirements contained in the approved plan.

**REVISION OF SECTION 900 - SEEDING, FERTILIZER, BLANKET AND MULCHING**

Section 900 of the Standard Specifications are hereby amended as follows:

***Subsection 900.01 is revised as follows:***

Delete the first paragraph and replace with the following:

"This work shall consist of furnishing and spreading fertilizers; soil preparation; furnishing and drilling or sowing seed; mulching or blanket the seeded areas in accordance with these specifications, accepted horticultural practice, and in reasonably close conformity with the locations and details shown on the plans or as designated. The seeded areas shall be all areas that have been disturbed during construction."

**Add the following to Section 900.01 – Description:**

Existing irrigation systems may be present in the project area. The Contractor is responsible for locating and identifying any and all irrigation facilities affected by the project. The Contractor shall adjust, by either relocating and/or replacing, any and all features affected by the project. Discovered features are to be reported to the Engineer. Relocation and/or replacement shall include adjusting irrigation spray, volume, spread and pressure to match existing irrigation coverage. Replacement parts and features are to be new, meeting or exceeding the function of the part it is replacing. All adjusted systems are to be pressure tested by the Contractor prior to backfilling and approved by the Engineer. The Contractor shall provide all material, labor and equipment necessary in relocating and/or replacing affected irrigation systems.

The Contractor shall furnish all labor materials, supplies, equipment, tools and perform all operations in connection with and reasonably incidental to complete the installation of rock mulch as indicated on the drawings. The rock mulch shall be 1 ½" screened Horizon River Rock laid atop landscape filter fabric to a depth of 3-inches.

***Subsection 900.02 is revised as follows:***

**Section A:** Remove any reference to the seed mixture and replace with the following:

The seed mix for this project is a High Plains/Foothills Seed Mix which includes the following:

- 20% Annual Rye
- 15% Slender Wheatgrass
- 10% Mountain Brome
- 10% Pubescent Wheatgrass
- 10% Hard Fescue
- 10% Canada Bluegrass
- 8% Indiangrass
- 7% Sideoats Grama
- 5% Blue Grama
- 5% Switchgrass

Seed shall be broadcast at a rate of 35 lbs. per acre.

Fertilizer should be applied immediately after seeding at a rate of 50 pounds of available nitrogen per acre and 40 pounds of available phosphate per acre.

A minimum 2" thick layer of top soil shall be placed in areas to receive native seeding where topsoil is absent at the completion of grading operations. Top soil shall be placed and uniformly spread prior to seeding.

In Subsection 900.03, add the following:

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Erosion blanket (North American Green SC150 BN or approved equal) shall be installed on all areas to be seeded with slopes that are 4:1 or steeper. Disturbed areas flatter than 4:1 shall be mulched per Subsection 900.02 C after seeding.

**Delete section 900.03 – Erosion Matting, and replace with the following:**

900.03 – Erosion Control

The Contractor shall be responsible for determining the erosion control needs for this project. Erosion control methods and material shall meet the requirements as specified in The Colorado Department of Transportation, Standard Specifications for Road and Bridge Construction, latest edition, Section 208 – Erosion Control, the Colorado Department of Transportation, M & S Standards, latest edition, Standard Plan No M-208-1, and as determined by the Engineer.

**Add the following to Section 900.04 – Method of Measurement:**

Erosion Control shall include all material, labor and equipment and shall be measured and paid for per lump sum. An Erosion Control Supervisor will not be measured, but will be considered incidental to the Erosion Control pay item. Any excavation required for removal of accumulated sediment from traps, basins, areas adjacent to silt fences and erosion bales, and any other clean out excavation of accumulated sediment, and the disposal of such sediment, will not be paid for separately but will be included with the work.

Measurement and payment for resetting of Irrigation System will be delineated by each property affected. Each Irrigation System is defined by all material, labor and equipment necessary to reset the irrigation system within each property.

Rock Mulch shall be measured by the square foot and shall include all labor material and equipment, including landscape filter fabric, for placement of the rock mulch complete in place.

**Delete section 900.05 - Basis of Payment, and replace with the following:**

The accepted quantities will be paid for at the contract price per unit of measurement for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

Pay Item	Pay Unit
Reset Irrigation System	EA.
Erosion Control	L.S.
Seeding (Native)	S.F.
Sod	S.F.

Soil preparation, seed, fertilizer, mulching and erosion matting will not be paid for separately but shall be included in the work.

Cost for adjusting or re-adjusting the seeding or fertilizing equipment will not be paid for separately but shall be included in the work.

Water for seeding, mulching, hydraulic mulching, and sodding will not be paid for separately but shall be included in the work.

Mulch stockpiling and reapplication shall not be paid for separately but shall be included in the work.

The payment for Erosion Control Lump Sum shall be paid in an amount divided by the total number of contract days as stated in the bid documents multiplied by the number of days in which erosion control measures are in place and in conformance with the Erosion Control Plan. 10-percent of the Lump Sum Bid will be retained until completion of the project or when permanent stabilization has been obtained.

**Subsection 900.3 is to include the following:**

**Maintenance and Acceptance**

Inspection and Acceptance:

Re-vegetation: The Contractor will inspect existing site conditions and note irregularities affecting work of this section. Verify that grading operations have been satisfactorily completed and that topsoil of adequate quantity and quality has been replaced in all disturbed areas as specified. Verify that the area to be re-vegetated is protected from concentrated runoff and sediment from adjacent areas. Note any previous treatments to the area such as temporary seeding or mulching and discuss how these treatments will effect permanent re-vegetation with the Engineer. Report all irregularities affecting work of this section to the Engineer before beginning work. Beginning work of this section implies acceptance of existing conditions.

Conditional Acceptance: Upon completion of the seeding and planting operations, the Contractor shall notify the Engineer to review the work. Seeded and planted areas shall meet the required coverage for seeding and planting. After the inspection it is the Contractor's responsibility to perform any required corrective measures or maintenance within one week. The contractor shall be responsible to maintain the seeded and planted areas until final acceptance of all work associated with the project has been granted by the Engineer.

Maintenance Requirements:

Weed Control: Apply appropriate herbicide(s) in accordance with manufacturers suggested rate(s) to control weeds. Herbicide application must comply with all requirements of herbicide/pesticide applicators license, including suitable warning/signing following application.

Disease and Insect Control: Apply fungicides and insecticides as required to control diseases and insects by a licensed applicator in accordance with state law requirements.

Watering: The Contractor shall be responsible for watering of seeded areas if he deems it necessary to insure performance under this Section. Apply only the amount of water necessary to maintain seeded areas in a healthy condition until the work has been accepted. Reduce amount of water after seed is established. Avoid standing water, surface wash, or erosion from over-watering.

Protection: Provide sufficient barriers and signage notifying the public to keep off newly seeded areas.

Repair: Re-seed or plant areas that have washed out or are eroded or otherwise do not have adequate coverage of vegetation.

Inspection: The Contractor shall notify the Engineer prior to watering, mowing, fertilizing, and spraying operations.

## SECTION 910 - EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION

Section 910 is hereby added to the Standard Specifications and shall include the following:

### 910.1 GENERAL

#### 910.1.1 Scope of Work:

- A. This work shall consist of temporary measures needed to control erosion and water pollution. These temporary measures shall include, but not be limited to, berms, dikes, coffer dams, sediment basins, fiber mats, waddles, netting, gravel, mulches, grasses, slope drains and other erosion control devices or methods. These temporary measures shall be installed at the locations where needed to control erosion and water pollution during the construction of the project, and as directed by the **Engineer**, and as shown on the Drawings.
- B. The Erosion Control Plan presented in the Drawings serves as a concept plan and base sheet for erosion and sediment control during construction. **Contractor** has the ultimate responsibility for providing adequate sediment and erosion control and water quality throughout the duration of the project. Therefore, the **Contractor** shall develop a plan and provide whatever measures are needed to achieve the required protection of areas that will be disturbed during the contractors work on the project consistent

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with the Contractors work plan for the project. **Contractor** shall include in his bid price for erosion and sediment control all items that may be needed to control erosion, sediment and water pollution.

910.1.2 Submittals: The erosion and sediment control facilities shown on the Drawings are conceptual. The **Contractor** shall develop a detailed Storm Water Management Plan (SWMP), consistent with the **Contractor's plan to accomplish the work**, retain an updated copy on the site, submit an application to the **State**, and submit the SWMP to the **State** at their request. The **Contractor** shall obtain a Storm Water Construction Permit from the State. The **Contractor** shall also submit the SWMP (referred to as the Erosion and Sediment Control Plan by the **City**) with the required signature blocks and signatures to the **Engineer** for approval. The SWMP shall indicate that it has been prepared for the **City** and the **State**. **Permits/approvals must be obtained prior to construction.** The **Contractor** is responsible for implementing the SWMP and compliance with the conditions of the Storm Water Construction Permit. The **State** or the **Engineer** may direct the **Contractor** to modify the SWMP during construction as conditions warrant. The **Contractor** shall note changes on the SWMP immediately as it most reflect current site conditions.

910.1.3 Materials:

A. Materials may include hay bales, straw, fiber mats, fiber netting, wood cellulose, fiber fabric, manufactured waddles, gravel, riprap, pre-cast concrete barriers, and other suitable materials, and shall be reasonably clean, free of deleterious materials, and certified weed free. All materials shall be submitted to the **Engineer** for approval prior to installation.

B. Temporary grass cover (if required) shall be a quick growing species suitable to the area, which will provide temporary cover and will not later compete with the grasses sown for permanent cover. All grass seed shall be approved by the **Owner** prior to installation.

C. Fertilizer and soil conditioners shall be approved by the **Owner** prior to installation.

D. Miscellaneous: All other material used by the Contractor for water diversion and erosion control shall be specified on a detailed Erosion and Sediment Control Plan to be completed by the Contractor and reviewed by the **Engineer** prior to starting work.

910.1.4 Construction Requirements: All materials for erosion and sediment control shall be installed in accordance with these Specifications. To the extent possible, movement of construction equipment within the flowing portions of waterways should be minimized. Frequent fording of the channel should be avoided unless an adequate temporary stream crossing has been approved by the USACE and constructed by the contractor. The Contractor shall divert flows so construction equipment, materials, and earthwork are not exposed to flow.

The erosion and sediment control facilities shall be installed prior to construction and shall remain in place throughout. The Contractor will be required to clean sediment from upstream sediment traps and provide other maintenance as required to the erosion and sediment control facilities during construction.

## 910.2 PERMITS AND COMPLIANCE

A. **Contractor** must apply for and obtain a Construction Dewatering Permit (Colorado Wastewater Discharge Permit), a Stormwater Construction Permit from the Colorado Department of Health and Environment, and an Erosion and Stormwater Quality Control Permit from El Paso County. All costs for these permits shall be the responsibility of **Contractor**. These permits require that specific actions be performed at designated times. **Contractor** is legally obligated to comply with all terms and conditions of the permits including testing for effluent limitations if required by the terms of the permits.

**CONTRACTOR** shall allow the Colorado Department of Health or other representatives to enter the site to test for compliance with the permit. Non compliance with the permit can result in stoppage of all work.

In addition to permit requirements, **Engineer** shall also monitor **Contractor's** erosion control and work methods. If the overall function and intent of erosion control is not being met, then **Engineer** shall require **Contractor** to provide additional measures as required to obtain the desired results. Costs for any additional erosion control measures shall be the responsibility of **Contractor**, since he has the ultimate responsibility for providing adequate erosion control and water quality for the duration of the project.

**910.3 STABILIZATION OF DISTURBED AREAS**

- A. Temporary sediment control measures shall be established within 5 days from time of exposure/disturbance. Permanent erosion protection measures shall be established within 21 days after final grading of areas.

**910.4 PROTECTION OF ADJACENT PROPERTIES**

- A. Properties adjacent to the site of a land disturbance shall be protected from sediment deposition. In addition to the erosion control measures required on the Drawings, perimeter controls may be required if damage to adjacent properties is likely. Perimeter controls include, but are not limited to, a vegetated buffer strip around the lower perimeter of the land disturbance, sediment barriers such as straw bales and silt fences; sediment basins; or a combination of such measures. Vegetated buffer strips may be used only where runoff in sheet flow is expected and should be at least 20 feet in width.

**910.5 TIMING AND STABILIZATION OF SEDIMENT AND EROSION CONTROL MEASURES**

- A. Sediment barriers, perimeter dikes, and other measures intended to either trap sediment or prevent runoff from flowing over disturbed areas must be constructed as a first step in grading and be made functional before land disturbance takes place. Earthen structures such as dams, dikes, and diversions must be stabilized within 5 days of installation. Stormwater outlets must also be stabilized prior to any upstream land disturbing activities.

**910.6 WORKING IN OR CROSSING WATERCOURSES**

- A. Construction vehicles should be kept out of watercourses to the extent possible. Where in-channel work is necessary, precautions must be taken to stabilize the work area during construction to minimize erosion. The channel (including bed and banks) must always be re-stabilized immediately after in-channel work is completed.
- B. Where a live (wet) watercourse must be crossed by construction vehicles during construction, a Temporary Stream Crossing must be provided for this purpose. If the contractor proposes to use such crossings, they will be required to request and obtain prior approval from USACE. Temporary crossings will be required to be removed and the areas impacted by them shall be restored at the completion of construction of the project.

**910.7 CONSTRUCTION ACCESS ROUTES**

- A. Wherever construction vehicles enter or leave a construction site, a Stabilized Construction Entrance is required. Where sediment is transported onto a public road or parking lot surface, the pavement shall be cleaned thoroughly at the end of each day. Sediment shall be removed from roads or parking lots by shoveling or sweeping and be transported to a sediment controlled disposal area. Street washing shall be allowed only after sediment is removed in this manner.

**910.8 DISPOSITION OF TEMPORARY MEASURES**

- A. All temporary erosion and sediment control measures shall be disposed of within 30 days after final site stabilization is achieved or after the temporary measures are no longer needed as determined by **Engineer**. Trapped sediment and other disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion.

**910.9 MAINTENANCE**

- A. All temporary and permanent erosion and sediment control practices must be maintained and repaired as needed to assure continued performance of their intended function.

**SECTION 920 – PROPERTY RESTORATION**

Section 900 of the City of Colorado Springs Engineering Division Standard Specifications is revised to include the addition of Property Restoration.

**920.01 Description**

This work includes restoration of adjacent property affected by construction activities. The work includes all materials, labor, and equipment required to restore the property to a condition equal to, or better than it was at the beginning of construction. Included are (but not limited to): removals, resets, spreading of topsoil, seeding, sodding, mulching, fencing, edging, rocks, bushes, trees (and tree trimming), sprinkler system modification/repair, and any other work required to restore the property to a condition equal to or better than its original condition. All

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work completed shall be documented to the satisfaction of the Engineer. Specific requirements known prior to construction are listed in Subsection 920.03.

### 920.02 Coordination Requirements

The Contractor shall coordinate with the property owner prior to starting work. The property must be evaluated jointly by the Contractor and the owner prior to beginning work. A written agreement on the work activities to be performed shall be developed and agreed upon prior to beginning work. Two copies of the written agreement shall be provided to the Engineer.

The Contractor shall establish the state of the property by taking before and after photographs (or video) of the work at each location, and making sketches if necessary. A complete set of pictures, video, and sketches for each property shall be provided to the Engineer. The Contractor shall maintain a set of pictures, video and sketches for job site use.

### 920.03 Property Restoration Requirements

Specific property restoration requirements to be performed by the Contractor, in addition to the typical restoration described in Section 920.01 are shown on the plan sheets. These requirements are intended to outline the major items/issues identified as part of right-of-way agreements and/or permits, and should not be considered the minimum requirements.

### 920.04 Construction Requirements

The Contractor shall coordinate with the property owner at least two weeks prior to beginning work on the property. Notification of the coordination will be provided to the Engineer.

The Contractor shall remove and reset or replace all existing items as necessary to perform the work. The Contractor shall be responsible for the costs or replacement, with equal or better items, for any items damaged by the Contractor during the work.

The Contractor shall salvage, and deliver to the property owner, any materials that the property owner has requested during or after the coordination efforts.

All landscaping work shall meet the requirements of Section 900 of the City of Colorado Springs, Engineering Division, Standard Specifications and any revision contained herein.

The Contractor may recover and store removed materials from the property for reuse as long as the condition of materials does not degrade.

All trees shall be 1-1/4" caliper or larger. The species shall be the same as the existing trees. Species substitution will be acceptable if approved, in writing, by the property owner.

All bushes shall be 5 gallon or larger. The species shall be the same as the existing bushes. Species substitution will be acceptable if approved, in writing, by the property owner.

The Contractor shall be responsible for watering all trees, bushes and sod for a minimum of 21 days after installation.

The Contractor shall provide all materials, equipment and labor necessary to complete the work.

Resetting of an irrigation system shall include all work necessary to remove the items from their existing location and to relocate them to the new location, and shall include all irrigation system equipment, pipe, fittings, valve boxes and all other work necessary to complete the reset item.

Installation of new landscape rocks or resetting of existing rocks shall include all labor, materials, and equipment required for placing landscape rocks.

### 920.05 Construction Certification Requirements

The Contractor shall obtain, upon completion of the work, and prior to acceptance by the City, written approval of the Property Restoration work from the property owner. A copy of the written approval shall be provided to the Engineer

## SECTION 920 - WATER CONTROL AND DEWATERING

Section 920 is hereby added to the Standard Specifications and shall include the following:

### **920.1 General**

#### **920.1.01 Scope of Work:**

The work of this section consists of controlling groundwater, channel low flows, and higher storm flows during construction.

#### **920.1.02 Materials:**

Onsite materials may be used within the limits of construction to construct temporary dams and berms. Other materials such as plastic sheeting, sandbags, pre-cast concrete barriers, riprap and storm sewer pipe may also be used if desired by the **Contractor**.

#### **920.1.03 Submittals**

The **Contractor** is required to submit a detailed water control and dewatering plan for review prior to installing any components of the plan.

#### **920.1.04 Construction Requirements:**

- A. General:** For all excavation, the **Contractor** shall provide suitable equipment and labor to remove water and ice and keep the excavation dewatered so that construction can be completed in dry conditions where required by the Drawings and Specifications. Water control shall be accomplished such that no damage is done to adjacent channel banks or structures. The **Contractor** is responsible for investigating and familiarizing himself with all site conditions that may affect the work including surface water; level of groundwater and the time of year the work is to be done. All excavations made as part of dewatering operations shall be backfilled with the same type material as was removed and compacted to a minimum of 95% of the maximum dry density standard proctor (ASTM D698) except where replacement by other materials and/or methods are required.
- B. Surface Water Control:** Surface water control generally falls in to the following categories:
1. Normal low flows along Fountain Creek
  2. Storm/flood flows along Fountain Creek and
  3. Local surface flows

The **Contractor** shall coordinate, evaluate, design, construct, and maintain temporary water control systems. These systems shall not worsen flooding, alter major flow paths, or worsen flow characteristics during construction. The **Contractor** is responsible to ensure that any such worsening of flooding does not occur.

At a minimum, the **Contractor** will be responsible for diverting the quantity of surface flow around the construction area so that the excavation the placement of embankment, riprap and beddings can remain free of surface water and ice for the time it takes to install these materials. The **Contractor** is cautioned that the minimum quantity of water to be diverted is for erosion control and construction purposes and not for general protection of the construction site. ***It shall be the Contractor's responsibility to determine the quantity of water which shall be diverted to protect all work from damage caused by stormwater. The Contractor will be responsible for all repairs required due to flood damage.***

***The Contractor shall, at all times, maintain a flow path for the Fountain Creek Channel flow.*** Temporary structures such as berms, sandbags, pre-cast concrete barriers, etc. may be permitted for the control of channel flow, as long as such measures are not a major obstruction to flood flows, do not worsen flooding, or alter historic flow routes.

**C. Groundwater Control:** Groundwater may be encountered in excavation activities within the project and will need to be temporarily lowered to construct portions of the improvements. The **Contractor** shall install adequate measures to maintain the level of groundwater below the foundation subgrade elevation and maintain sufficient bearing capacity for the earthwork, and rockwork. Such measures may include, but are not limited to, installation of perimeter sub drains, pumping from drilled holes or by pumping from sumps excavated below the subgrade elevation. The foundation bearing surfaces are to be kept dewatered and stable until the earthwork, rockwork or other types of work are complete and backfilled. Disturbance of foundation subgrade by **Contractor** operations shall not be considered as originally unsuitable foundation subgrade and shall be repaired at **Contractor's** expense. Any temporary dewatering trenches or well points shall be restored following dewatering operations to reduce permeability in those areas as approved by the **Owner**.

## SECTION 925 – CLEARING AND GRUBBING

Section 925 is hereby added to the Standard Specifications and shall include the following:

### **925.01 Description**

This work consists of clearing, grubbing, removing, and disposing of vegetation and debris within the limits of the project site as shown on the Drawings and as required by the Work. Vegetation and objects designated to remain shall be preserved free from injury or defacement.

### **925.02 Construction Requirements**

All trees shrub, grass, weeds and debris located within approximate limits of grading as shown on the plans are to be removed and properly disposed of offsite, unless otherwise specified on the plans or by the owner. Trees to be removed shall be marked by the contractor and approved by the owner prior to removal. Any object including trees, shrubs, plants, not designated for removal by the **Owner**, that are damaged shall be repaired or replaced as directed by the **Owner**, at the **Contractor's** expense.

**Clearing and grubbing shall extend** to the approximate limit of grading as shown on the plans. All surface objects, trees, stumps, roots, and other protruding obstructions not designated to remain shall be cleared and grubbed, including mowing, as required. Undisturbed stumps, roots, and nonperishable solid objects located two feet or more below sub grade or embankment slope may remain in place. In areas to be rounded at the tops of back slopes, stumps shall be removed to at least two feet below the surface of the final slope line.

Except in areas to be excavated, all holes resulting from the removal of obstructions shall be backfilled with suitable material and compacted in accordance with the Standard Specifications.

All cleared timber shall be removed from the project and shall become the property of the **Contractor**. Branches on trees or shrubs shall be removed as directed. All trimming shall be done in accordance with good tree surgery practices as recommended by **City Parks and Recreation Department**.

The **Contractor** shall scalp the areas within the excavation or embankment grading limits. Scalping shall include the removal from the ground surface of sawdust, and other vegetation matter.

## SECTION 950 - CONSTRUCTION SURVEYING

Section 950 is hereby added to the Standard Specifications and shall include the following:

### **950.01 General**

- A. Surveying: It shall be the responsibility of the **Contractor** to provide construction staking for as needed to control horizontal and vertical locations of the proposed work items including all offset lines necessary for construction.
- B. All construction surveying provided by the **Contractor** shall be completed under the Supervision of a Colorado Registered Land Surveyor.
- C. The construction plans for the project provide the elevations and descriptions of permanent and temporary project monuments. The **Contractor** shall check all control points provided by the **Engineer** and verify and document their accuracy, prior to using them for construction surveying.
- D. Supervision: The **Contractor** shall have supervision, knowledge of the project requirements and proper installation, and construction procedures, available in the field at all times that work is progressing.

**SCHEDULE F  
PROJECT SPECIFIC SPECIAL PROVISIONS AND MEASUREMENT AND PAYMENT**

The **Project Specific Special Provisions** amend or supplement the **General Provisions** of the Construction Contract and other provisions of the Contract Documents as indicated below. All Provisions, which are not so amended or supplemented, remain in full force and effect.

**1.0 STANDARD SPECIFICATIONS**

**1.01 STANDARD SPECIFICATIONS**

The Standard Specifications for this project shall be the most recent version of the "CITY OF COLORADO SPRINGS ENGINEERING DIVISIONS STANDARD SPECIFICATIONS", except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety.

All Contractors on this project are required to have on the job site and utilize the current updated copy of the City of Colorado Springs Engineering Divisions Standard Specification.

Copies are available on line through the City of Colorado Springs internet site or for purchase from the City of Colorado Springs,– Office Services Unit, 30. South Nevada Avenue, Suite L01, Colorado Springs, during regular business hours.

**1.02 UTILITY SPECIFICATIONS**

Listed below are utility department specifications that should be utilized (current issue or revision) in the construction and/or protection of the respective utility lines. No work involving water, wastewater, electric, or gas lines is planned to be executed with this project.

Hard copies of these specifications are available at Colorado Springs Utilities Development Services, 111 S. Cascade Avenue, Suite 105, Colorado Springs, Colorado 80903. The specifications can also be accessed online at [www.csu.org/pages/standards-bulletins.aspx](http://www.csu.org/pages/standards-bulletins.aspx).

**UTILITY SPECIFICATIONS**

Colorado Springs Utilities  
Wastewater Line Extension  
And Service Standards

Colorado Springs Utilities  
Water Line Extension  
And Service Standards

Colorado Springs Utilities  
Natural Gas Line Extension  
And Service Standards

Colorado Springs Utilities  
Electric Line Extension  
And Service Standards

## 2.0 PROJECT SPECIFIC SPECIAL CONDITIONS

### 2.01 GENERAL

Work to be completed under this contract consists of furnishing all labor, materials, equipment, accessories, and performing all operations to complete the project work in accordance with the Drawings and Specifications.

All work shall be completed in accordance with the most recent version of the “**City of Colorado Springs Engineering Divisions Standard Specifications**,” referred to hereinafter as “**Standard Specifications**”, except as modified in these **Special Conditions** and the following **Special Technical Specifications** contained in Schedule F of this document.

The **Contractor** shall visit the jobsite to carefully examine the proposed work. The **Contractor** shall also thoroughly review the Drawings and Specifications. The **Contractor** shall satisfy himself as to the character, quality, and quantities of work to be performed, materials to be furnished, and as to the requirements of these Specifications.

The **Contractor** shall take every precaution against damage to any part of the project including but not limited to the existing trail surfaces, nearby concrete walls, riprap bank armoring, landscaping and facilities, and roadway bridges. Specific attention shall be given to the protection of the private land, adjacent facilities, and existing utilities. These items shall be protected from damage from any cause, including all surface and subsurface water, whether arising from the execution of work or any other cause. The **Contractor** shall rebuild, repair, restore, and make good all damages to any portion of the work due to causes beyond the control of and without the fault of negligence of the **Contractor**, including but not restricted to, acts of God, of the public enemy, or of governmental authorities.

### 2.02 PROJECT DESCRIPTION

#### General

The project primarily consists of installation of new HDPE and concrete storm drain pipe, storm inlets, storm drain manholes, new water main, sewer main and sewer manholes. Existing storm sewer will be abandoned in place. Some existing water main will be removed, but most will be abandoned in place. The project is located on Pikes Peak Avenue between Nevada Avenue and Shooks Run.

### 2.03 CONTROL OF WORK

In case of any discrepancies in any of the Drawings, Specifications, Special Conditions, and Technical Specifications, the order of precedence is as follows:

- a) Project Specific Special Conditions
- b) Special Technical Specifications
- c) Plans
  - i) Detailed Plans
  - ii) Standard Plans  
(Figure dimensions will govern over scaled dimensions on all plans)
- d) General Provisions
- e) City of Colorado Springs Engineering Division Standard Specifications
- f) Colorado Springs Utilities Specifications

## 2.04 OWNER

The City of Colorado Springs (hereinafter referred to as **Owner**) shall administer this project including the finalization of any change orders, pay estimates and payments of such, acceptance of work, and other matters as stipulated in these Contract Documents.

## 2.05 ENGINEER

**Engineer** refers to the City Engineer of Colorado Springs or designated representative.

## 2.06 DRAWINGS

The drawings for this project are separate from the Contract Documents book and are entitled **"Pikes Peak Roadway and Stormwater Improvements"** (hereinafter referred to as ***The Construction Plans or The Plans***).

## CONSTRUCTION LIMITS

The **Contractor** shall limit all construction activities to within the "Limits of Disturbance" as shown in ***The Construction Plans*** and areas for which construction access and construction staging has been obtained and permitted by the **Contractor**.

If the disturbance does not conform to the 404 permit acquired by the **Owner**, approval of the additional disturbance by the USACOE will be required if the disturbance is within the "Waters of the U.S." or adjacent wetland areas. Disturbance to vegetated areas outside the Limits of Disturbance will require **Owner** approval. All required approvals shall be obtained prior to any vegetated disturbance outside the limits of disturbance.

In areas where access to the construction site is not limited by existing fences, the **Contractor** shall install a 48-inch high construction fence to limit access to the construction site at the direction of the **Owner**. Maintenance of the fence and its removal at the completion of the project will be the responsibility of the **Contractor**. All material associated with the installation and maintenance of this fence will be considered incidental to the other unit prices bid for this project.

## 2.07 INSPECTION

At all times, representatives of the **Owner or Owner's Representative** and representatives of other agencies affected by the construction work, and the **Owner or Owner's Representative** shall have the right to enter and inspect any and all parts of the work for compliance with the Drawings and Specifications.

The **Owner or Owner's Representative** shall decide any and all questions that may arise as to the quality and acceptability of the materials furnished, the work performed, the manner of performance, and the progress of the work. He shall decide all questions that may arise as to the acceptable fulfillment of the contract. The decision of the **Owner or Owner's Representative** shall be final.

The **Contractor** shall give inspection personnel a minimum of forty-eight (48) hours notice prior to needing inspection.

## 2.08 MATERIAL TESTING

The **Contractor** shall give the **Owner or Owner's Representative** two (2) days notice before placing concrete, grout or earthen fill so that the **Owner or Owner's Representative** may arrange for material tests. The **Owner or Owner's Representative** reserves the right to reject any request for placing concrete, grout or fill with less than two (2) days notice. The **Contractor** agrees to pay any minimum call-out charges or standby time for the tester due to his failure to pour or place on schedule for any reason except by the action of the **Owner or Owner's Representative**. **The Owner or Owner's Representative shall pay for all materials tests taken with the exception of retesting and as specified in the City General Provisions, Section 108.22**

## 2.09 EXISTING UTILITIES

No underground utility locating or utility potholing was performed in the design of this project. The **Contractor** shall field verify the existence and location of all existing utilities which might affect the work and shall notify the **Owner or Owner's Representative** of any utilities not shown on the construction plans. The utilities shown on the Drawings are noted for informational purposes only and are believed to be correct. However, additional utilities may be present in the area. The **Contractor** must take sole responsibility for damage to any utility line encountered whether or not shown on the Drawings and whether or not actually located in the field as shown on the Drawings. The **Contractor** shall notify the utility

companies for field locations prior to the start of construction. This section is supplemental to the **City General Provisions, Section 108.09**.

If the exact location and depth of existing underground utilities are unknown, the **Contractor** shall perform all necessary exploratory excavation at his expense to locate these facilities which may affect the work prior to beginning construction. The **Contractor** shall notify the **Engineer** immediately of any utility discrepancies or conflicts.

The **Contractor** shall inform the **Owner or Owner's Representative** of existing utilities that may need to be relocated. The **Contractor** shall be responsible for contacting, coordinating, and requesting relocations from affected utility owners, and scheduling any relocation in his Work Sequence Plan to meet the Contract Time of Performance.

If the **Contractor** requests that utility companies relocate their utilities for his convenience in construction of any portion of the work, the cost of such shall be at the **Contractor's** expense.

Contract time will not be extended to account for repair of utilities that are damaged by the **Contractor** due to his negligence.

The **Contractor** will be required to contact all Utility Owners 72 hours prior to beginning excavation and/or grading.

Full compensation for compliance and cooperation, as required by this section, shall be considered to be included in the prices bid for items included on the contract bid schedule and no additional compensation will be provided.

## 2.10 FEES AND PERMITS

Except as noted below, the **Contractor**, prior to commencing any work, shall secure at his own expense (including fees) all of the permits required for the performance of the work. Full compensation for compliance and cooperation, as required by this section, shall be considered to be included in the prices bid for items included on the contract bid schedule and no additional compensation will be provided.

The **Owner** is in the process of obtaining an Army Corps of Engineers 404 permit and a Floodplain Development Permit for this project. Full compliance with the terms of these permits is required. The **Owner** will not award a contract for the project until the 404 permit and Floodplain Development Permit have been obtained.

The **Contractor** shall obtain at a minimum a **an Erosion and Stormwater Quality Control Permit (ESQCP) from the City of Colorado Springs, and a Construction Dewatering Permit from the Colorado Department of Public Health and Environment**. Due to locations of construction access the contractor may be required to obtain a **Traffic Control/Access Permit from the City**. If the total estimated area of construction activity for the project will exceed one (1) acre, the contractor will be required to obtain a **Stormwater Construction Permit from the Colorado Department of Public Health and Environment**. Areas of construction activity includes, but is not limited to clearing, grading, excavation, demolition, installation of new or improved haul and access roads, staging areas, stockpiling of fill materials, and borrow areas.

The **Contractor** shall comply with all requirements of the permits.

The **Contractor** shall submit required permits to the **Owner** for approval at or prior to the preconstruction meeting. The **Contractor** shall also submit a traffic control plan and agreement(s) with property owners for access and staging and plan showing the same at the preconstruction meeting for approval by the **Owner**. The **Contractor** shall obtain any additional permits required for the construction of the project. The **Contractor** shall comply with all conditions of all the required permits.

## 2.11 WASTE MATERIALS

The **Contractor** shall clean up any debris created by his construction activities and shall dispose of the same in suitable trash containers on a daily basis. All debris shall be disposed of off-site at a disposal site approved by the **Owner**. Should the **Contractor** fail to maintain the construction area in a suitable manner, the **Owner** will have the right to contract with a third party and withhold any amounts incurred from the **Contractor's** payment.

## 2.12 OPERATIONS WITH OTHERS

The **Owner** reserves the right to have other work performed by other contractors and to permit the public utility companies and others to do work adjacent to or within the site. The **Contractor** shall conduct his operations and shall cooperate with the other parties so as to minimize interference with this other work.

## 2.13 CONSTRUCTION STAGING AND ACCESS

It is anticipated that the **Contractor** will need to secure a staging area and access to the site from outside of the **Land owned by the Owner**. Securing of such a staging area and access and all costs associated with the same shall be considered to be included in the bid prices for items included in the contract Bid Schedule and no additional compensation will be provided.

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Prior to beginning work, the contractor shall submit a copy of all agreements between the **Contractor** and private parties providing the **Contractor** with a staging area or access to the site. All agreements between the **Contractor** and private parties regarding the use of private property for staging areas or construction access shall indemnify and hold harmless the **Owner** for any damage, failure to make payment, or any other harm incurred by the **Contractor** as a result of the **Contractor's** use of the private property.

The **Contractor** will be responsible for protecting all existing streets, sidewalks, drainage facilities, utilities, and other facilities at and along all utilized access roads.

All areas affected by construction shall be cleaned, and restored to the pre-project condition or better at the completion of the project work. All work and costs associated with the use and restoration of staging and access areas that are located outside of the Limits of Disturbance shown on the plans shall be considered to be included in the prices bid for items included on the contract bid schedule and no additional compensation will be provided.

### 2.14 SANITARY FACILITIES

The **Contractor** shall provide suitable temporary sanitary restroom facilities for use by the construction personnel. Wastes collected in the temporary facilities shall be removed and disposed of in a timely and satisfactory manner, as required to maintain the facilities in a sanitary usable condition.

The **Contractor** shall maintain the facilities so that any offensive odor is controlled. The construction personnel **will not** be permitted to use the facilities provided for by the adjacent businesses.

Full compensation for compliance and cooperation, as required by this section, shall be considered to be included in the prices bid for items included on the contract bid schedule and no additional compensation will be provided.

### 2.15 CONTRACTOR'S AND OWNERS REPRESENTATIVES

The **Contractor** shall have on the job at all times as his agent, a competent superintendent capable of reading and thoroughly understanding the **Drawings and Specifications** and being thoroughly experienced in the type of work being performed. The **Owner** will have a representative on the job site periodically to observe work for conformance with the **Drawings and Specifications**, and clarify questions the **Contractor** has relative to the job. The **Contractor** shall provide accurate records of any field changes made during construction.

### 2.16 DUST AND EROSION CONTROL

The **Contractor** shall be responsible to install sufficient temporary erosion control facilities in order to minimize erosion in areas impacted by access, staging, and construction activities. The **Contractor** shall repair, at no additional cost to the project, any erosion and washouts that may occur due to the lack of proper erosion control facilities.

The **Contractor** shall use measures to prevent and control dust and mud within the area affected by the project. No additional compensation will be paid to the **Contractor** for general dust control. **Vehicle-tracking control mats will be required at the access points to the public roadways. Removal of vehicle-tracking mats will be accomplished prior to re-vegetation.**

The **Contractor** shall clean off any soil, dirt, or debris tracked onto any adjacent streets. When notified by the **Owner** that the adjacent streets require cleaning, the **Contractor** shall clean the streets within 24 hours of such notification, or the **Owner** shall arrange to have the streets cleaned and shall deduct the cost of such cleaning from the **Contractor's** payments.

All work and materials associated with installation and maintenance of temporary erosion control facilities until permanent stabilization is achieved will be paid for in the lump sum price bid for Temporary Erosion and Sediment Control.

### 2.17 TRAFFIC CONTROL AND PEDESTRIAN BARRICADES

The **Contractor** shall furnish all necessary flag persons; erect and maintain warning lights, advance warning signs, detour signs, barricades, temporary fence, and sufficient safeguards around all excavations, embankments, obstructions; and any other work for this project for the protection of all work being performed and for the safety of the public and pedestrian traffic, as well as motor vehicles. All signs and barricades shall conform to the **Manual of Uniform Traffic Control Devices** and meet the requirements of the **General Provisions and Section 800 of the Standard Specifications**. The **Contractor** shall submit three (3) copies of a **Traffic Control Plan**, acceptable to the **Owner**, for review **at or before the Preconstruction Conference**. This plan must provide traffic control at all access points, and when loading and

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unloading equipment and material in public street right-of -ways. All material and labor associated with traffic control, fencing, signs, access, and staging shall be considered an incidental to other bid items for the project.

### 2.18 WATER CONTROL

Until the **Owner** issues final written acceptance of the project, the **Contractor** shall take every precaution against damage to any part of the project including the adjacent land, utilities, paving and structures from any cause, including all surface and subsurface water, whether arising from the execution of work or any other cause. The **Contractor** shall rebuild, repair, restore, and make good all damages to any portion of the work due to causes beyond the control of and without the fault of negligence of the **Contractor**, including but not restricted to, acts of God, of the public enemy, or of governmental authorities.

The **Contractor** shall be responsible for the project and shall take such precautions as may be necessary to construct the project in a dry condition and provide for drainage, dewatering, and control of all surface and subsurface water. The **Contractor** shall erect any necessary temporary structures or other facilities at his expense to control surface water and groundwater. **The Contractor is advised that he is working in a drainage course subject to continuous low flow and intermittent flow of significant magnitude. As such, proper management and control of water through the project area will be required to avoid localized flooding, damage to adjacent facilities, damage to adjacent properties and/or extensive soil erosion.**

At or prior to the Preconstruction Conference and prior to beginning any work, the **Contractor** shall submit three (3) copies of a plan for **Water Control and Dewatering** to the **Owner** for review. The **Owner**, at his option, may require the **Contractor** to update the **Water Control Plan** as conditions warrant.

The **Contractor** shall carefully evaluate and plan the work and develop a water control plan that is compatible with the work plan and minimizes risks to adjacent properties, facilities and completed and in-progress work.

The **Contractor**, at his expense, shall furnish all necessary equipment and materials required to control the surface and subsurface water in all the areas from start of work through the completion of the total project work. The **Contractor** shall perform all work associated with "Project Water Control" in accordance with the **Section 920 "Water Control and Dewatering"** included in the special technical specifications.

### 2.19 PROGRESS

If the completion of any part of the work or the delivery of materials is behind the approved schedule, the **Contractor** must submit a plan acceptable to the **Owner** for bringing the work up to schedule. The **Owner** shall have the right to withhold progress payments for the work if the **Contractor** fails to update and submit the progress/manpower schedule and reports as specified.

### 2.20 CLEARING AND GRUBBING

**Clearing and Grubbing** shall include **all trees and shrubs** located within the grading limits unless otherwise indicated on the plans.

**Clearing and Grubbing** shall be phased as to reduce the amount of exposed soil within the channel at one time. All work associated with **Clearing and Grubbing** will be accomplished in accordance with **Section 925 "Clearing and Grubbing"** of the special technical specifications.

### 2.21 PRE-CONSTRUCTION CONFERENCE RESPONSIBILITIES

The **Contractor** will attend a **pre-construction meeting** before beginning construction. The purpose of the meeting will be to discuss project issues, scheduling, phasing, environmental concerns, water control, private property issues, pedestrian issues, storm water clean water act, safety, etc., the **Contractor's** designated Superintendent or Supervisor assigned to the project shall attend this meeting. The **Contractor shall**, at a minimum, provide the following materials at or prior to the **Pre-Construction Conference**:

Traffic Control and Pedestrian Safety Plan

Water Control and Dewatering Plan

Erosion and Stormwater Quality Control Plan

SWMP report and Stormwater Construction Permit application (if required)

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Construction Dewatering Permit  
Construction Schedule and Manpower Report  
Detailed Construction Method and Phasing Plan for Construction  
Access and Staging Area Plan

The plans are to be reviewed by the **Owner** prior to construction. All issues are to be resolved prior to beginning construction.

## 2.22 SHOP DRAWINGS AND OTHER SUBMITTALS

**Contractor** shall submit all required **Shop Drawings (3 copies)** to the **Owner or Owner's Representative** for review. These include, at a minimum, the following:

Test results for any bedding, riprap, and boulders.  
Concrete Mix Designs for grout  
Sheet Piling  
Seeding, fertilizer, and mulching material

## 2.23 COORDINATION WITH PRIVATE PROPERTY OWNERS

The **Contractor** is not to enter **private property** unless written access permission from the owner of property is obtained by the **Contractor** and approved by the **Owner**. All damages to private property shall be immediately repaired to as good or better conditions at no additional cost to the project. The **Contractor** will notify the **Owner** immediately if damages occur to private property. **Contractor** shall provide documentation of written access permission to **Owner** prior to accessing private property.

## 2.24 MOBILIZATION

The Bid Schedule has an item for mobilization, which may include such items as administration, bonding, and insurance. **Mobilization shall be paid as shown in Section 627 of the Special Technical Specifications.**

## 2.25 DISPOSAL SITE

The **Contractor** is responsible for the removal of all debris, unsuitable material, asphalt, concrete, trees, stumps, remains from clearing and grubbing, and all other materials not used for the construction of the improvements. Disposal of these materials shall not be measured separately but included in the unit price bid for each applicable item on the bid schedule. The **Contractor** shall designate in writing a disposal site acceptable to the **Owner**. Further, the **Contractor** shall consider the following for hauling suitable or disposing of unsuitable materials:

Access to the project beyond the immediate confines of the work area shall be over suitable roadways without violation of any City, County, State, or Federal restrictions for vehicle and truck weights or any other limitation on movement of heavy equipment hauling materials to and from the site.

**Violation costs, including fines and repairs to either public or private roadways or appurtenance structures, above or below ground level, shall be at the Contractor's expense.**

Unless otherwise presented in the Bid Schedule, the **Contractor's** cost for loading, hauling, daily cleaning of streets, the disposal of material that must be removed from the site, together with the construction, maintaining and altering of haul roads, dump fees and permits, shall not be paid for separately.

Reinforced concrete rubble from damaged cutoff wall to be demolished with the project is to be taken by the **Contractor** for recycle to Rapco Recycled Aggregated Products Co., 2255 E. Las Vegas St. Colorado Springs CO 80906.

## 2.26 EXCAVATION AND REPLACEMENT OF UNSUITABLE MATERIAL

Excavation and Replacement of Unsuitable Material is defined in the Technical Specifications. The **Contractor** shall not complete any excavation and replacement of unsuitable material without written approval from the **Owner**. Excavation and replacement of unsuitable material shall not be used in lieu of proper dewatering.

## 2.27 WORK HOURS

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Normal work hours are 7:30 AM to 5:30 PM Monday through Friday. Work outside normal hours must be approved in advance in writing by the **Owner**.

### 2.28 ARCHAEOLOGICAL AND HISTORICAL DISCOVERIES

The **Contractor** is required to inform the **Owner** of any evidence which might suggest to a lay person that archaeological or historic materials may be present in the work area. Upon making such a discovery, the **Contractor** shall do whatever is necessary to avoid disturbing the work area. This could require that the **Contractor's** activities be redirected or stopped until the **Owner** or **Engineer** determines how to proceed.

### 2.29 CONSTRUCTION DOCUMENTATION

#### **Photographs**

Construction photographs will be required on the project.

Photographs shall be 3" X 5" size or larger, matte finish, in color and mounted in 3-ring binders.

Each photograph shall be marked with date description and identification number.

Each photograph must indicate a station reference to work as shown on the plans.

The preconstruction photographs shall be delivered to and approved by the **Owner or Owner's Representative**, prior to the beginning of construction.

Include progress photographs with each pay request. The photos will be a requirement for payment.

Digital pictures on a disk may be substituted for the above. However, the pictures must be labeled as described above.

#### **Red-line Drawings**

The **Contractor** shall maintain a **red-line set of drawings indicating field changes** to the design, existing facilities not shown, pertinent construction data, etc. The **Contractor** shall submit a current set of red-line plans to the **Owner** with each pay estimate. The **Contractor** shall submit a complete set of red-line plans to the **Owner** at the completion of the project.

**Construction photographs and red-line drawings will not be paid for separately, but will be considered incidental to the work.**

### 2.30 SPILL KIT

The **Contractor** shall supply and maintain a spill kit on-site. The spill kit shall contain any and all necessary devices to be used in the event of a spill on-site during construction activities. The **Contractor** shall coordinate with the **Owner's** stormwater inspector regarding the site specific contents of the spill kit. The spill kit shall remain on-site and be available at all times for the **Contractor's** crew. A meeting shall be set up by the **Contractor's** Stormwater Supervisor prior to any construction activities to clarify the uses and implementation of the spill kit.

**The spill kit will not be paid for separately, but will be considered incidental to the bid item for Temporary Erosion and Sediment Control.**

### 2.31 CONSTRUCTION METHOD AND PHASING PLAN

**The Contractor shall submit a construction method and phasing plan detailing the methods and sequence to be utilized in construction of the proposed facilities.** The plan is to include the following items:

Control of base flows, flood flows, and groundwater as it relates to work phasing.

Traffic control as it relates to work phasing.

Concrete wall demolition and excavation

Phased construction of grouted boulders as applicable for the project to be constructed

Sheet pile cut off wall construction

Method for Placement of grouted boulders as applicable for the project to be constructed

Grouting of boulders

Riprap and bedding placement sequencing and method of placement

The **Owner** is to review the construction method and phasing plan and have all questions and issues addressed before construction can proceed. All costs associated with preparation and potential revisions to the method and phasing plan will be considered incidental to the price bid for associated items and no separate payment will be provided.

### 2.32 REQUESTS FOR INFORMATION (RFI)

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“Requests for Information” (RFI) sheets shall be completed by the **Contractor** if additional information of clarification is required. The RFI shall be submitted to the **Owner** for processing. Any changes to the plans, specifications, and construction requirements are to be made in writing. No changes will be permitted based on verbal agreements.

### 2.33 CONSTRUCTION COORDINATION MEETINGS

The **Contractor will conduct weekly construction progress meetings** with the attendance of all pertinent project related personnel. The **Contractor** shall coordinate with the **Owner** as to the location where the meetings are to be held.

### 2.34 CONSTRUCTION SURVEYING AND STAKING

The **Contractor** shall be responsible for providing horizontal and vertical control for the project elements. The **Contractor** shall protect all existing control points, property corners and monuments. The **Contractor** shall be responsible for replacing any damaged or destroyed monument, property corner or control point.

### 2.35 AS-BUILT SURVEY

The **Contractor** shall submit and have approved an as-built survey signed and stamped by a Colorado Registered Professional Surveyor prior to receiving Final Payment for the project. The as-built survey shall meet the requirements of Section 960 of the Special Technical Specifications.

### 2.36 CLEAN UP AND REMOVAL OF SEDIMENT DEPOSITS

The **Contractor** shall implement stabilization measures within the project area to control erosion to the extent practical. If sediment or other material from the site migrates downstream of the project area during construction it shall be removed and disposed of by the **Contractor** without any additional compensation. The **Contractor** is advised to document the existing conditions in the channel and to provide a copy of the documentation to the **Owner** prior to beginning construction.

### 2.37 MEASUREMENT AND PAYMENT

Payment for work performed by the **Contractor** under these Contract Documents will be made at the approved unit price or lump sum price for each of the items as listed in the bid proposal and measured as hereinafter specified. Such payment shall compensate the **Contractor** for all costs in connection with furnishing all labor, equipment and material required and performing the operations necessary to complete the item in accordance with the contract documents.

Any items of work which are called out in the plans and/or the specifications and do not have a specific line item in the bid proposal but which are necessary to complete the work in accordance with the requirements of good and standard practice, such as sub-grade preparation and form work are to be considered as incidental to the construction of the project and the **Contractor's** cost for such work shall be included in the bid price for the related item of work.

The **Contractor** shall accomplish all incidental work essential to the completion of the project, including cleanup and disposal of waste or surplus material without additional cost to the **Owner**. The cleanup and disposal of waste or surplus material shall be performed during construction or as soon after as is reasonably possible in order to better maintain the safety and aesthetics of the construction area.

The quantities listed in the bid schedule are estimated quantities and are listed only for convenience in comparing bids. Unless otherwise noted, final payment will be made for the actual quantities constructed or installed, be they more or less than the listed quantities, said quantities being measured as specified.

Unit prices listed in the Bid Schedule shall include labor and materials as described in this section.

## BID ITEM DESCRIPTIONS FOR STORM DRAIN INSTALLATION:

### BID ITEM NO. 1: MOBILIZATION

(LS)

#### a. *Measurement*

Mobilization shall be paid for by lump sum measurement and as accepted by the Engineer as complying with the plans and specifications. Mobilization shall be in accordance with Section 100 of the City of Colorado Springs Standard Specifications.

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Payment will be according to the following schedule:

When 10% of the original contract amount is earned, 50% of the amount bid for mobilization will be paid.

When 50% of the original contract amount is earned, 100% of the amount bid for mobilization will be paid.

The total sum of all payments shall not exceed the original contract amount bid for the item, regardless of the fact that the Contractor may have, for any reason, shut down the work on the project or moved equipment away from the project and then back again.

b. *Payment*

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to mobilize, prepare the project staging area, including stabilized construction access, temporary gravel access path and parking area, removal of facilities and gravel, potholing, cleaning up of site, establishment of sanitary facilities, installation of project construction signs, permitting, and all other costs incurred or labor and operations which must be performed prior to beginning the other items under the contract and effort to complete the work, provide adequate storage and security of on-site equipment and transportation

**BID ITEM NO. 2: WORK ZONE TRAFFIC CONTROL (LS)**

a. *Measurement*

Work Zone Traffic Control to be paid for shall be lump sum. Work Zone Traffic Control shall be in accordance with Section 830 of the City of Colorado Springs Standard Specifications, and with the Revision to Section 830 – Work Zone Traffic Control.

b. *Payment*

Payment shall be made at the applicable contract unit bid price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for work zone traffic control shall be made at the unit price to include detour pavement placement and removal, advanced signs, VMS, construction area signs, contractor preparation, submittal, revision, and execution of traffic control plans and all other items of work involved in work zone traffic control.

Payment for Work Zone Traffic Control shall include full compensation for the design, materials, placement, maintenance, and removal of the following:

Temporary pavement, Temporary earthwork; Temporary shoring, Temporary retaining walls; Contractor preparation, submittal, revision, and execution of traffic control plans; Temporary traffic control devices including: Variable Message Signs (VMS); Temporary striping; Temporary signals (poles, faces, electric hookup, signal timing design, coordination with City Traffic); Drums, cones, tubular markers, and other delineators; Traffic barrier (includes impact attenuation if necessary);

Temporary lighting; Traffic Control Supervisor; Traffic control inspection; Flagging; Development of a construction phasing plan; Snow removal; Maintenance of the public traveled way; Temporary pavement markings (and removal); Uniformed Traffic Control (UTC) by the Colorado Springs Police Department (CSPD); Permitting.

Any action on the part of the Contractor which results in non-compliance with the approved Traffic Control Plan or the project specifications shall be cause for reduction in payment. Non-compliance shall include failure to have the Traffic Control Plan on the job site at all times when in effect, and failure to have the TCS on site during active traffic control. The payment shall be reduced by an amount equal to the Method of Traffic Control (MOT) Contract unit price divided by the total number of contract days as stated in the bid documents multiplied by the number of days when the Contractor is not in compliance. In no case shall the amount of the reduction in payment per day be less than one (1) percent of the total MOT Contract amount.

**BID ITEM NO. 3: CONSTRUCTION SURVEYING (LS)**

a. *Measurement*

The quantity of Construction Staking to be paid for shall be lump sum. Construction Staking shall be in accordance with Section 108 of the City of Colorado Springs Standard Specifications.

b. *Payment*

Payment shall be made at the applicable contract unit bid price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work.

**BID ITEM NO 4: TEMPORARY EROSION CONTROL****(LS)****a. Measurement**

Erosion Control is to be paid for and shall be lump sum. The contractor shall comply with the "CITY OF COLORADO SPRINGS DRAINAGE CRITERIA MANUAL VOLUME II", 2002 and the "COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", 2005 and accepted by the Engineer as complying with the plans and specifications. The erosion control for the site shall include inlet protection and any necessary measures to contain and minimize soil erosion or runoff within project limits for the project duration. Removal of place erosion control measures shall be included in this bid item. All erosion control measures shall be in accordance with Section 208 of the CDOT Standard Specifications for Road and Bridge Construction and the City of Colorado Springs Drainage Criteria Manual.

**b. Payment**

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and removal of erosion control measures at the direction of the Engineer.

**BID ITEM NO. 5: CLEARING AND GRUBBING****(LS)****a. Measurement**

Clearing and Grubbing shall be paid for will be determined by lump sum measurement and as accepted by the Engineer as complying with the plans and specifications. Clearing and Grubbing shall be in accordance with Section 100 of the City of Colorado Springs Standard Specifications.

**b. Payment**

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for clearing and grubbing shall include tree/shrub trimming, tree removal to include stump removal, scalping, removal and off-site disposal of vegetation, trees and debris within the limits of the project. All holes left behind shall be filled with suitable material to existing grade as directed by the Engineer.

**BID ITEM NO. 6: 36-INCH HDPE STORM DRAIN****(LF)****a. Measurement**

36-INCH HDPE Storm Drain shall be measured by the linear foot along the horizontal plane, including length through fittings, collars, bends, and other appurtenances that are not identified as a separate bid item. Measurement through manhole junctions or inlets will not be considered in the Engineer's calculation of linear footage.

**b. Payment**

Payment for 36-INCH HDPE Storm Drain shall include full compensation for all labor, equipment, tools, and manufacturing to install the pipe per plan. Payment for this item will include: pipe, fittings, excavation, trench shoring, dewatering as required, and compacted backfill above the pipe bedding zone to pavement substructure.

Payment will also include density testing and off-site disposal of construction debris.

Payment for this item will include appurtenances including but not limited to: Joining and jointing materials, fittings, tees, and other appurtenances not covered by other bid items.

Pipe Bedding will be paid in a separate item.

**BID ITEM NO. 7: 18-INCH HDPE STORM DRAIN****(LF)****a. Measurement**

18-INCH HDPE Storm Drain shall be measured by the linear foot along the horizontal plane, including length through fittings, collars, bends, and other appurtenances that are not identified as a separate bid item. Measurement through manhole junctions or inlets will not be considered in the Engineer's calculation of linear footage.

**b. Payment**

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Payment for 18-INCH HDPE Storm Drain shall include full compensation for all labor, equipment, tools, and manufacturing to install the pipe per plan. Payment for this item will include: pipe, fittings, excavation, trench shoring, dewatering as required, compacted backfill above the pipe bedding zone to pavement substructure.

Payment will also include density testing and off-site disposal of construction debris.

Payment for this item will include appurtenances including but not limited to: Joining and jointing materials, fittings, tees, and other appurtenances not covered by other bid items.

Pipe Bedding and Shading will be paid in a separate item.

**BID ITEM NO. 8: 19"x30" ELLIPTICAL RUBBER GASKETED REINFORCED CONCRETE PIPE (LF)**  
**and BID ITEM NO. 9: 24"x38" ELLIPTICAL RUBBER GASKETED REINFORCED CONCRETE PIPE (LF)**

a. *Measurement*

19-INCH x 30-INCH RGRCP Storm Drain shall be measured by the linear foot along the horizontal plane, including length through fittings, collars, bends, and other appurtenances that are not identified as a separate bid item. Measurement through manhole junctions or inlets will not be considered in the Engineer's calculation of linear footage.

b. *Payment*

Payment for 19-INCH x 30-INCH RGRCP Storm Drain shall include full compensation for all labor, equipment, tools, and manufacturing to install the pipe per plan. Payment for this item will include: pipe, fittings, excavation, trench shoring, dewatering as required, compacted backfill above the pipe bedding zone to pavement substructure.

Payment will also include density testing and off-site disposal of construction debris.

Payment for this item will include appurtenances including but not limited to: Joining and jointing materials, fittings, tees, and other appurtenances not covered by other bid items.

Pipe Bedding and Shading will be paid in a separate item.

**BID ITEM NO. 10: TYPE II PIPE BEDDING (CY)**

Bedding is defined as that portion of pipe zone material starting at the bottom of the pipe, to a depth of 6 inches below the pipe, within the pipe trench.

a. *Measurement*

The quantity of Type II Bedding to be paid for will be determined by measurement of the number of cubic yards of material actually constructed and accepted by the Engineer as complying with the plans and specifications.

Type II Bedding construction specifications shall be in accordance with Section 600 of the City of Colorado Springs Standard Specifications **and the modifications noted per the Special Provisions in this contract** (Sections 635 through 637).

b. *Payment*

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, mixing, placing and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

**BID ITEM NO. 11: STORM DRAIN MANHOLE, TYPE 1 (EA)**  
**and BID ITEM NO. 12: STORM DRAIN MANHOLE, SQUARE (EA)**

a. *Measurement*

Storm Drain Manhole to be paid for shall be determined as each actually constructed and accepted by the Engineer as complying with the plans and specifications. Each Storm Drain Manhole shall be in accordance with Section 620 of the City of Colorado Springs Standard Specifications, Standard Details (D-20), and plan details (Square Manhole). Manholes shall be constructed as modified by the special provisions noted in this contract.

b. *Payment*

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Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Storm Drain Manhole shall include all prepping, compaction, replacement of necessary select fill for leveling and forming, rebar, subsequent backfill around formed concrete and all other items of work involved in construction of the Storm Drain Manhole. Rebar shall be epoxy coated for all manholes.

**BID ITEM NO. 13: REMOVAL OF EXISTING STORM DRAIN INLET (EA)**

- a. **Measurement**  
The quantity of Removal of Storm Drain Inlet to be paid for will be determined by measurement of the number of Inlets actually removed and accepted by the Engineer as complying with the plans and specifications. Removal of Inlet shall be in accordance with Section 220 of the City of Colorado Springs Standard Specifications, and with the Revision to Section 220 – Removal of Structures and Obstructions.
- b. **Payment**  
Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment of removal of Inlet shall include removal and off-site disposal of any foundations, reinforcing steel and all other features of the structure. Payment shall be full compensation for sawcutting, excavation and subsequent backfill of materials removed.

**BID ITEM NO. 14: STORM DRAIN INLET, TYPE D-11A (EA)**

- a. **Measurement**  
Storm Drain Inlet to be paid for shall be determined as each actually constructed and accepted by the Engineer as complying with the plans and specifications. Storm Drain Inlet shall be in accordance with Section 630 of the City of Colorado Springs Standard Specifications, City of Colorado Springs Standard Detail D-11A as modified on the plans and special provisions as noted in this contract.
- b. **Payment**  
Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Storm Drain Inlet shall include all prepping, compaction, replacement of necessary select fill for leveling and forming, rebar, subsequent backfill around formed concrete and all other items of work involved in construction of the Storm Drain Inlet.

**BID ITEM NO. 15: STORM DRAIN INLET, TYPE R M-604-12 (EA)**

- a. **Measurement**  
Storm Drain Inlet, Type R M-604-12 to be paid for shall be determined as each actually constructed and accepted by the Engineer as complying with the plans and specifications. Storm Drain Inlet shall be in accordance with CDOT Standard Detail M-604-12 and Section 630 of the City of Colorado Springs Standard Specifications.
- b. **Payment**  
Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Storm Drain Inlet shall include all prepping, compaction, replacement of necessary select fill for leveling and forming, rebar, subsequent backfill around formed concrete and all other items of work involved in construction of the Storm Drain Inlet.

**BID ITEM NO. 16 REMOVAL OF EXISTING PAVEMENT (DEPTH VARIES 10-20 INCHES)  
(SY)**

The existing pavement section consists of Asphalt Concrete on top of Portland Cement Concrete. Prior cores demonstrated a range of 5-10 inches of Asphalt Concrete on 0-12 inches of Portland Cement Concrete. Average total pavement section was 13 inches thick. Variances may be encountered for the total area of removal.

Removal of Pavement shall meet the material and construction requirements of Section 220 of the City Standard Specifications and the Revision of COS Section 220. Pavement removals shall be removed by sawcutting in a neat line.

- a. *Measurement*

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Removal of Concrete Pavement shall be measured by the square yard.

*b. Payment*

Payment for Removal of Concrete Pavement shall include full compensation for sawing, removing, hauling, disposal, excavation, and subsequent backfill.

**BID ITEM NO. 17: ASPHALT-CONCRETE PAVEMENT PATCH (GRADE S, 3-IN DEPTH)  
(SY)**

*a. Measurement*

The quantity of Asphalt Concrete Pavement (Grading S) (3-Inch Depth) to be paid for will be determined by measurement of the number of square yards of material actually constructed and accepted by the Engineer as complying with the plans and specifications.

Asphalt Concrete Pavement (Grading S) (3-Inch Depth) construction specifications shall be in accordance with Section 400 of the City of Colorado Springs Standard Specifications and the Pikes Peak Regional Pavement Specifications.

*b. Payment*

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, mixing, placing and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

**BID ITEM NO. 18: ASPHALT BASE COURSE (CLASS 6, 12-INCH DEPTH) (CY)**

*b. Measurement*

The quantity of Asphalt Base Course (Class 6) (12-Inch) to be paid for will be determined by measurement of the number of cubic yards of material actually constructed and accepted by the Engineer as complying with the plans and specifications.

Asphalt Base Course (Class 6) (12-Inch) construction specifications shall be in accordance with Section 300 of the City of Colorado Springs Standard Specifications and the Pikes Peak Regional Pavement Specifications.

*b. Payment*

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all materials, for preparation, mixing, placing and compaction of these materials and for all labor, equipment, tools, and incidentals necessary to complete the work.

**BID ITEM NO. 19 SDR-35 PVC PIPE (LF)**

*a. Measurement*

SDR-35 PVC PIPE shall be measured by the linear foot along the horizontal plane, including length through fittings, collars, bends, and other appurtenances that are not identified as a separate bid item. Measurement through manhole junctions or inlets will not be considered in the Engineer's calculation of linear footage.

*b. Payment*

SDR-35 PVC PIPE shall include full compensation for all labor, equipment, tools, and manufacturing to install the pipe per plan. Payment for this item will include: pipe, fittings, excavation, trench shoring, dewatering as required, bedding sand, compacted backfill above the pipe bedding zone to pavement substructure.

Payment will also include density testing and off-site disposal of construction debris.

Payment for this item will include appurtenances including but not limited to: Joining and jointing materials, fittings, gaskets, and other appurtenances not covered by other bid items.

**BID ITEM NO. 20 SEWER MANHOLE (EA)**

*a. Material and Construction Requirements*

Manhole Type I shall meet the material and construction requirements of Colorado Springs Wastewater Line Extension and Service Standards. **Section 630 of the City Standard Specifications, and CSU Drawing C3-1 and C3-9.**

b. *Method of Measurement*  
 Manhole Type I shall be measured by "Each".

c. *Basis of Payment*  
 Payment for Manhole Type I shall include full compensation for: all materials including concrete, steel, lid, steps, risers, grout; excavation; backfill; shoring; compaction; hauling; forming; pumping; placement; raising/lowering to match existing surface; disposal of excavated material; and finishing.

**2.38 MATERIAL & CONSTRUCTION REQUIREMENTS, MEASUREMENT, AND PAYMENT FOR POTABLE WATER INSTALLATION**

This section describes the Material and Construction Requirements, Method of Measurement, and Basis of Payment for every Contract bid item. The Material and Construction Requirements section points to the standard or revision to a standard that shall be used to complete each item. Unless the revision to a standard states otherwise, the omission of a standard from the Material and Construction Requirements section shall be interpreted as authorization to ignore the omitted standard for the purposes of constructing that item.

**MEASUREMENT OF PAY QUANTITIES**

The Contractor shall make all measurements and determine all quantities and amounts of work done under the Contract subject to approval by the Engineer. At the time measurements are made for quantity determinations, the Engineer or his authorized assistant shall be present to verify such measurements. From quantity figures so ascertained, it will be the Contractor's responsibility to prepare a monthly periodical estimate of the work accomplished to date. This estimate shall be submitted to the Engineer each month for his review and check not later than the date established at the pre-construction conference. The form of such monthly estimates is to be subject to the approval of the Engineer.

No measurement or payment will be made for:

- Work performed or materials placed outside of the limits of work indicated in the plans or established by the Engineer.
- Materials wasted, used, or disposed of in a manner not called for under the contract.
- Rejected materials (including material rejected after it has been placed, if the rejection is due to the Contractor's failure to comply with the provisions of the contract).
- Hauling and disposing of rejected materials.
- Materials on hand after completion of the work.
- Any other work or material when payment is contrary to any provision of the contract.
- All incidental costs necessary for proper performance of the work.

The "Method of Measurement" sections included with these specifications for each Contract item detail how each item shall be measured for payment and take precedence over any conflicting forms of measurement in referenced standard specifications.

**ESTIMATED QUANTITIES**

The estimated quantities shown in the bid form are estimates only, being given only as the basis for comparison of the bids, and the City does not warrant, expressly or by implication, that the actual amount of work will correspond therewith. The right to increase or decrease the amount of any class or portion of the work or to make changes in the work required as may be deemed necessary is reserved by the City as provided elsewhere in these specifications. The basis of payment will be the actual unit bid items of work performed and measured in accordance with the contract. All prospective bidders should note that certain bid items may be included in the Bid Form to establish a unit price should the use of those items become necessary during construction. Allowance will not be made for loss of anticipated profits should the use of these items be deemed unnecessary.

**ROUNDING**

Quantities for final and interim payment shall be rounded according to the table below:

PAY UNIT		ROUNDING CRITERIA
Acre	AC	.X
Cubic Yard (concrete)	CY	.X
Cubic Yard	CY	X.

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Day	DAY	X.
Each	EA	.X
Gallon	GAL	X.
Hour	HR	X.
Linear Foot	LF	X.
Lump Sum	LS	.X%
Pound	LB	X.
Square Foot	SF	X.
Square Yard	SY	X.
Ton	TON	.XX
<b>LEGEND</b>		
X. Round to the nearest whole unit.		
.X Round to the nearest tenth of a unit.		
.XX Round to the nearest hundredth of a unit.		

If the excess digit directly to the right of the place to be rounded to is 4 or less, round down, otherwise round up. A representative of the Engineer (an inspector) may carry additional digits for individual measurements, but for interim payment these measurements shall be summed and then rounded. If the item is not measured and is equal to plan quantity, all interim measurements shall be rounded to the nearest whole unit. Items measured by the each may be paid by tenths for work that is partially complete as determined by the Engineer. Quantities shown in the plans and contract quantities have been rounded to the nearest whole unit.

**PAYMENT FOR LUMP SUM ITEMS**

Partial payments for lump sum items shall be made in accordance with the partial payment schedule established by these specifications for individual lump sum items. If no schedule is established, partial payments will be based on progress estimates prepared by the Engineer of the value of work performed or materials placed in accordance with Section 109 of the 2011 CDOT Standard Specifications for Road and Bridge Construction.

**PAYMENT FOR MATERIAL ON HAND**

Partial payments may be made on monthly estimates for materials not yet incorporated in the work ("stockpiled material" or "material on hand") if the materials:

- Meet the requirements of the Contract based upon inspections or testing by the Engineer.
- Are delivered to or stockpiled in the vicinity of the project or other storage site(s) specifically approved by the Engineer.
- Are properly stored, protected, and insured as to loss, damage, and title.

Material delivered to an off-site storage facility will be considered for partial payment only if:

- The storage site has been approved by the Engineer.
- The off-site storage of materials is required for more than thirty calendar days.
- The material is tagged, labeled, or otherwise identified as belonging to the project.
- The cost of transportation to and from the storage site is included in the unit cost of the item.

The cost of material on hand will be determined by written evidence supplied by the Contractor in sufficient detail as will permit the Engineer to determine the Contractor's actual cost of the materials. The Contractor shall furnish the Engineer with an invoice prior to the progress payment. Partial payments will not exceed 85% of the contract unit price for the item or 100% of the certified invoice cost for stockpiled material, whichever is less.

**GENERAL PAYMENT**

Payment will be made only for items listed in the bid form, items added through Change Order, or work authorized for payment through Force Account. All other work and material required for completion of the project shall be considered incidental.

Payment for all items shall be made at the unit price designated in the Contract for the item and shall include full compensation for: all labor, equipment, tools, and materials necessary to complete the work. The "Basis of Payment" sections included with these specifications for each Contract item contain a non-comprehensive list of work and materials

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that are included with payment for each item and shall take precedence over any conflicting bases of payment in referenced standard specifications in case of conflict.

### ABBREVIATIONS AND DEFINITIONS

For the purpose of these Measurement and Payment Specifications, the following abbreviations and definitions apply:

- "CDOT Standard Specifications" shall refer to the *Standard Specifications for Road and Bridge Construction* published by the Colorado Department of Transportation, year 2011.
- "City Standard Specifications" shall refer to the *General Provisions, Standard Specifications, and Standard Drawings* issued by the Engineering Division of the City of Colorado Springs.
- "Horizontal plane" refers to the two-dimensional plane defined by northing and easting but not elevation. Items that are measured along the horizontal plane are measured without regard to grade or changes in elevation. The horizontal plane is equivalent to plan view. Measurements along the horizontal plane may require surveying equipment to accurately verify. The cost of surveying by the Contractor to verify or dispute measured quantities shall be included in the work.
  - o Example: An item is measured by the linear foot along the horizontal plane. A stick of the item was manufactured as 8.00 feet long. If the stick is placed exactly level it will be measured as 8.00 LF. If the same stick is placed at a 25% slope, it will be measured as  $8.0 \cdot \cos[\text{atan}(0.25)] = 7.76$  LF, not considering rounding. As the slope of the stick increases, the length measured along the horizontal plane for payment decreases.
- "Vertical plane" refers to the two-dimensional plane defined by elevation (plumb) and a line perpendicular to elevation and parallel to a horizontal alignment defined by the plans. Items that are measured along the vertical plane are measured without regard to non-vertical contributions to surface area such as a wall face that is sloped or deviations from the horizontal alignment such as decorative steps in the face of a wall at columns. The vertical plane is equivalent to profile view.

### BID ITEM DESCRIPTIONS

#### 100-20000 CONSTRUCTION PHASING / MOT

(LS)

- a. *Material and Construction Requirements*  
Construction Phasing / MOT shall meet the material and construction requirements of Section 800 of the City Standard Specifications and the Revision of COS Section 800.
- b. *Method of Measurement*  
Construction Phasing / MOT shall be lump sum and will not be measured.
- c. *Basis of Payment*  
Payment for Construction Phasing / MOT shall be made as a percentage of the Contract unit price equal to the percent-complete-to-date of the balance of the total contract amount less any previous payments for Construction Phasing / MOT and Mobilization.

Any action on the part of the Contractor which results in non-compliance with the approved Traffic Control Plan or the project specifications shall be cause for reduction in payment. Non-compliance shall include failure to have the Traffic Control Plan on the job site at all times when in effect, and failure to have the TCS on site during active traffic control. The payment shall be reduced by an amount equal to the Construction Phasing / MOT Contract unit price divided by the total number of contract days as stated in the bid documents multiplied by the number of days when the Contractor is not in compliance. In no case shall the amount of the reduction in payment per day be less than one (1) percent of the total contract amount.

Payment for Construction Phasing / MOT shall include full compensation for the design, materials, placement, maintenance, and removal of the following:

- Temporary pavement
- Temporary earthwork
- Temporary shoring
- Temporary retaining walls

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- Contractor preparation, submittal, revision, and execution of traffic control plans
- Temporary traffic control devices
- Variable Message Signs (VMS)
- Temporary striping
- Temporary signals (poles, faces, electric hookup, signal timing design, coordination with City Traffic)
- Drums, cones, tubular markers, and other delineators
- Traffic barrier (includes impact attenuation if necessary)
- Temporary lighting
- Traffic Control Supervisor
- Traffic control inspection
- Flagging
- Development of a construction phasing plan
- Snow removal
- Maintenance of the public traveled way
- Temporary pavement markings (and removal)
- Uniformed Traffic Control (UTC) by the Colorado Springs Police Department (CSPD)
- Permitting

**220-00050 REMOVAL OF FIRE HYDRANT**

**(EA)**

- a. *Material and Construction Requirements*  
Removal of Fire Hydrant shall meet the material and construction requirements of Section 220 of the City Standard Specifications and the Revision of COS Section 220.
- b. *Method of Measurement*  
Removal of Fire Hydrant shall be measured by the each.
- c. *Basis of Payment*  
Payment for Removal of Fire Hydrant shall include full compensation for sawing, capping, removing, salvage and hauling, excavation, backfill, and surface restoration of disturbed area to original conditions. Fire hydrants shall be salvaged and delivered to Colorado Spring Utilities. Contractor shall coordinate with CSU for delivery of salvaged material.

**220-00210 REMOVAL OF CONCRETE PAVEMENT**

**(SY)**

- a. *Material and Construction Requirements*  
Removal of Concrete Pavement shall meet the material and construction requirements of Section 220 of the City Standard Specifications and the Revision of COS Section 220.
- b. *Method of Measurement*  
Removal of Concrete Pavement shall be measured by the square yard.
- c. *Basis of Payment*  
Payment for Removal of Concrete Pavement shall include full compensation for sawing, removing, hauling, disposal, excavation, and subsequent backfill.

**220-00220 REMOVAL OF ASPHALT MAT**

**(SY)**

- a. *Material and Construction Requirements*  
Removal of Asphalt Mat shall meet the material and construction requirements of Section 220 of the City Standard Specifications and the Revision of COS Section 220.
- b. *Method of Measurement*  
Removal of Asphalt Mat shall be measured by the square yard and shall include all asphalt material including asphalt curb.

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c. *Basis of Payment*

Payment for Removal of Asphalt Mat shall include full compensation for sawing, removing, hauling, disposal, excavation, and subsequent backfill. Payment shall include all costs associated with sawing asphalt at the limits of removal.

**220-10000 REMOVAL OF WATERLINE (12 INCH AND SMALLER) (LF)**

a. *Material and Construction Requirements*

Removal of Waterline (12 inch and smaller) shall meet the material and construction requirements of Section 220 of the City Standard Specifications and the Revision of COS Section 220.

b. *Method of Measurement*

Removal of Waterline (12 inch and smaller) shall be measured by the linear foot along the horizontal plane at the centerline of pipe including length through fittings, valves, and other appurtenances along the flowline.

c. *Basis of Payment*

Payment for Removal of Waterline (12 inch and smaller) shall include full compensation for removal and off-site disposal of any pipe, fittings, valves, valve boxes, concrete reverse anchors, thrust blocks and all other features of the pipe. Valve boxes and valves shall be salvaged and delivered to Colorado Springs Utilities. Payment shall be full compensation for sawing, excavation, delivery of salvaged materials and subsequent backfill of materials removed.

**220-10100 ABANDON WATERLINE (12 INCH AND SMALLER) (LF)**

a. *Material and Construction Requirements*

Abandon Waterline (12 inch and smaller) shall meet the material and construction requirements of Section 220 of the City Standard Specifications and the Revision of COS Section 220.

b. *Method of Measurement*

Abandon Waterline (12 inch and smaller) shall be measured by the linear foot along the horizontal plane at the centerline of pipe including length through fittings, valves, and other appurtenances along the flowline.

d. *Basis of Payment*

Payment for Abandon Waterline (12 inch and smaller) shall be full compensation for filling and plugging pipe including flash fill materials and pumping, concrete end wall, sawing, excavation, and subsequent backfill of materials removed. This item includes removal of all above grade appurtenances and valve boxes associated with the waterline abandonment.

**400-70001 ASPHALT CONCRETE PAVEMENT (PATCHING) (SY)**

a. *Material and Construction Requirements*

Asphalt Concrete Pavement (Patching) shall meet the material and construction requirements of the *Pikes Peak Region Asphalt Paving Specifications* and the Revision of COS Section 400.

b. *Method of Measurement*

Asphalt Concrete Pavement (Patching) shall be measured by the square yard at the surface of a patched pavement without regard to the depth of patch.

c. *Basis of Payment*

Payment for Asphalt Concrete Pavement (Patching) shall include full compensation for materials including asphalt and base, mixing, excavation, sawing asphalt, hauling, placement, and compaction.

**716-04305 4-INCH CLASS 305 PVC WATERLINE (LF)**

a. *Material and Construction Requirements*

4-Inch Class 305 PVC Waterline shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.

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- b. *Method of Measurement*  
4-Inch Class 305 PVC Waterline shall be measured by the linear foot along the horizontal plane, including length through bends, valves, and other pipe appurtenances that are not paid separately.
- c. *Basis of Payment*  
Payment for 4-Inch Class 305 PVC Waterline shall include full compensation for:
- All labor, equipment, tools, and manufacturing
  - All materials including: pipe, fittings, bedding material, tracer wire, test stations, marking tape, polyethylene wrap, galvanic anodes, and bolt protection.
  - Excavation regardless of the nature of the material
  - Trench shoring
  - Dewatering as required
  - Pipe installation including bedding
  - Installation of marking tape, tracer wires and test station assemblies
  - Joining and jointing materials
  - Pipe appurtenances including but not limited to: fittings, tees, polyethylene wrap, galvanic anodes, test stations, restraint, bolt protection, temporary bulkheads, connectors, temporary valves for testing as required, and other appurtenances not covered by other bid items
  - Pressure testing, flushing, disinfection of the waterline, and bacteria testing.
  - Temporary bulkheads for testing
  - Compacted backfill above the pipe bedding zone to pavement substructure and density testing
  - Off-site disposal of construction debris.

**716-06305 6-INCH C900 DR14 PVC WATERLINE**

**(LF)**

- a. *Material and Construction Requirements*  
6-Inch C900 DR14 PVC Waterline shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.
- b. *Method of Measurement*  
6-Inch C900 DR14 PVC Waterline shall be measured by the linear foot along the horizontal plane, including length through bends, valves, and other pipe appurtenances that are not paid separately.
- c. *Basis of Payment*  
Payment for 6-Inch C900 DR14 PVC Waterline shall include full compensation for:
- All labor, equipment, tools, and manufacturing
  - All materials including: pipe, fittings, bedding material, tracer wire, test stations, marking tape, polyethylene wrap, galvanic anodes, and bolt protection.
  - Excavation regardless of the nature of the material
  - Trench shoring
  - Dewatering as required
  - Pipe installation including bedding
  - Installation of marking tape, tracer wires and test station assemblies
  - Joining and jointing materials
  - Pipe appurtenances including but not limited to: fittings, tees, polyethylene wrap, galvanic anodes, test stations, restraint, bolt protection, temporary bulkheads, connectors, temporary valves for testing as required, and other appurtenances not covered by other bid items
  - Pressure testing, flushing, disinfection of the waterline, and bacteria testing.
  - Temporary bulkheads for testing
  - Compacted backfill above the pipe bedding zone to pavement substructure and density testing
  - Off-site disposal of construction debris.

**716-08305 8-INCH C900 DR14 PVC WATERLINE**

**(LF)**

- a. *Material and Construction Requirements*  
8-Inch C900 DR14 PVC Waterline shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.

CITY OF COLORADO SPRINGS

b. *Method of Measurement*

8-Inch C900 DR14 PVC Waterline shall be measured by the linear foot along the horizontal plane, including length through bends, valves, and other pipe appurtenances that are not paid separately.

c. *Basis of Payment*

Payment for 8-Inch C900 DR14 PVC Waterline shall include full compensation for:

- All labor, equipment, tools, and manufacturing
- All materials including: pipe, fittings, bedding material, tracer wire, test stations, marking tape, polyethylene wrap, galvanic anodes, and bolt protection.
- Excavation regardless of the nature of the material
- Trench shoring
- Dewatering as required
- Pipe installation including bedding
- Installation of marking tape, tracer wires and test station assemblies
- Joining and jointing materials
- Pipe appurtenances including but not limited to: fittings, tees, polyethylene wrap, galvanic anodes, test stations, restraint, bolt protection, temporary bulkheads, connectors, temporary valves for testing as required, and other appurtenances not covered by other bid items
- Pressure testing, flushing, disinfection of the waterline, and bacteria testing.
- Temporary bulkheads for testing
- Compacted backfill above the pipe bedding zone to pavement substructure and density testing
- Off-site disposal of construction debris.

**716-12305 12-INCH C900 DR14 PVC WATERLINE**

**(LF)**

a. *Material and Construction Requirements*

12-Inch C900 DR14 PVC Waterline shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.

b. *Method of Measurement*

12-Inch C900 DR14 PVC Waterline shall be measured by the linear foot along the horizontal plane, including length through bends, valves, and other pipe appurtenances that are not paid separately.

c. *Basis of Payment*

Payment for 12-Inch C900 DR14 PVC Waterline shall include full compensation for:

- All labor, equipment, tools, and manufacturing
- All materials including: pipe, fittings, bedding material, tracer wire, test stations, marking tape, polyethylene wrap, galvanic anodes, and bolt protection.
- Excavation regardless of the nature of the material
- Trench shoring
- Dewatering as required
- Pipe installation including bedding
- Installation of marking tape, tracer wires and test station assemblies
- Joining and jointing materials
- Pipe appurtenances including but not limited to: fittings, tees, polyethylene wrap, galvanic anodes, test stations, restraint, bolt protection, temporary bulkheads, connectors, temporary valves for testing as required, and other appurtenances not covered by other bid items
- Pressure testing, flushing, disinfection of the waterline, and bacteria testing.
- Temporary bulkheads for testing
- Controlled-strength flowfill at storm sewer utility crossing support
- Compacted backfill above the pipe bedding zone to pavement substructure and density testing
- Off-site disposal of construction debris.

**717-12009 12-INCH DR 9.0 HDPE WATERLINE****(LF)***a. Material and Construction Requirements*

12-Inch DR 9.0 HDPE Waterline shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.

*b. Method of Measurement*

12-Inch DR 9.0 HDPE Waterline shall be measured by the linear foot along the horizontal plane, including length through bends, valves, and other pipe appurtenances that are not paid separately.

*c. Basis of Payment*

Payment for 12-Inch DR 9.0 HDPE Waterline shall include full compensation for all work and materials needed to complete the waterline, including but not limited to:

- All labor, equipment, tools, and manufacturing
- All materials including: pipe, fittings, bedding material, tracer wire, test stations, marking tape, polyethylene wrap, galvanic anodes, and bolt protection.
- Excavation regardless of the nature of the material
- Trench shoring
- Dewatering as required
- Pipe installation including bedding
- Installation of marking tape, tracer wires and test station assemblies
- Joining and jointing materials including, adaptors and fusion joint welding
- Pipe appurtenances including but not limited to: fittings, tees, polyethylene wrap, galvanic anodes, test stations, restraint, bolt protection, temporary bulkheads, connectors, temporary valves for testing as required, and other appurtenances not covered by other bid items
- Pressure testing, flushing, disinfection of the waterline, and bacteria testing.
- Temporary bulkheads for testing
- Compacted backfill above the pipe bedding zone to pavement substructure and density testing
- Off-site disposal of construction debris.

**731-04012 4-INCH GATE VALVE, 250#****(EA)***a. Material and Construction Requirements*

4-Inch 250# Gate Valve shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.

*b. Method of Measurement*

4-Inch 250# Gate Valve (Complete in Place) shall be measured by the each.

*c. Basis of Payment*

Payment for 4-Inch 250# Gate Valve shall include full compensation for: all materials including, valve box, restraint, bolt protection, galvanic anode, hauling, shoring, temporary excavation and backfill, bedding material, and placement.

**731-06012 6-INCH GATE VALVE, 250#****(EA)***a. Material and Construction Requirements*

6-Inch 250# Gate Valve shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.

*b. Method of Measurement*

6-Inch 250# Gate Valve (Complete in Place) shall be measured by the each.

*c. Basis of Payment*

**CITY OF COLORADO SPRINGS**

Payment for 6-Inch 250# Gate Valve shall include full compensation for: all materials including, valve box, restraint, bolt protection, galvanic anode, hauling, shoring, temporary excavation and backfill, bedding material, and placement.

**731-08012 8-INCH GATE VALVE, 250# (EA)**

- a. *Material and Construction Requirements*  
8-Inch 250# Gate Valve shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.
- b. *Method of Measurement*  
8-Inch 250# Gate Valve (Complete in Place) shall be measured by the each.
- c. *Basis of Payment*  
Payment for 8-Inch 250# Gate Valve shall include full compensation for: all materials including, valve box, restraint, bolt protection, galvanic anode, hauling, shoring, temporary excavation and backfill, bedding material, and placement.

**731-12012 12-INCH GATE VALVE, 250# (EA)**

- a. *Material and Construction Requirements*  
*Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.
- b. *Method of Measurement*  
12-Inch 250# Gate Valve (Complete in Place) shall be measured by the each.
- c. *Basis of Payment*  
Payment for 12-Inch 250# Gate Valve shall include full compensation for: all materials including, valve box, restraint, bolt protection, galvanic anode, hauling, shoring, temporary excavation and backfill, bedding material, and placement.

**741-06000 6-INCH HYDRANT ASSEMBLY (COMPLETE IN PLACE) (EA)**

- a. *Material and Construction Requirements*  
6-Inch Hydrant Assembly (Complete in Place) shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.
- b. *Method of Measurement*  
6-Inch Hydrant Assembly (Complete in Place) shall be measured by the each.
- c. *Basis of Payment*  
Payment for 6-Inch Hydrant Assembly (Complete in Place) shall include full compensation for: all materials including hydrant, piping, fittings, polyethylene wrap, 17-lb galvanic anode, tracer wire and test station, thrust blocks, and restraints; excavation; backfill; compaction; testing; placement; and finishing.

**745-30000 WATER SERVICE LINE (COMPLETE IN PLACE) (EA)**

- a. *Material and Construction Requirements*  
Water Service Line (Complete in Place) shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities.
- b. *Method of Measurement*  
Water Service Line (Complete in Place) shall be measured by the each.
- c. *Basis of Payment*  
Payment for Water Service Line (Complete in Place) shall include full compensation for: all materials including, hauling, shoring, temporary excavation and backfill, restraint, corporation stop, curb stop and box, placement and reconnection to the existing service line, and final surface restoration of disturbed area to original conditions.

**747-00000 CONCRETE REVERSE ANCHOR (COMPLETE IN PLACE)****(CY)***a. Material and Construction Requirements*

Concrete Reverse Anchor (Complete in Place) shall meet the material and construction requirements of the *Water Line Extension & Service Standards*, latest edition, by Colorado Springs Utilities, and the Addition of CSU Waterline Specifications.

*b. Method of Measurement*

Concrete Reverse Anchor (Complete in Place) shall be measured by the cubic yard.

*c. Basis of Payment*

Payment for Concrete Reverse Anchor (Complete in Place) shall include full compensation for:

- Provide all labor, equipment, tools, manufacturing plant and materials to construct the concrete reverse anchor.
- Coordination and planning associated with roadway phasing and detours.
- Excavation regardless of the nature of the material, trench shoring and dewatering, steel reinforcing and concrete installation, compacted backfill above the pipe bedding zone for the remainder of the trench required to properly support the anchor wall prior to refilling the pipeline as shown on the Drawings. Compaction density testing and reports.
- Concrete test cylinders and laboratory concrete strength reports.
- All other related and necessary materials, work, and equipment required to construct the items listed in this bid item in accordance with the Contract Documents for a complete and operating installation.

**825-00000 WATER PLANS CONSTRUCTION SURVEYING****(LS)***a. Material and Construction Requirements*

Construction Surveying shall meet the material and construction requirements of Section 625 of the CDOT Standard Specifications and the Revision of CDOT Section 625.

*b. Method of Measurement*

Construction Surveying shall be lump sum and will not be measured.

*c. Basis of Payment*

Payment for Construction Surveying will include all materials and labor necessary to complete survey work for the project, including: setting and resetting stakes, marks, monuments, control points.

Construction Surveying required due to a change in scope of the project shall be paid by Force Account at a negotiated rate. Survey work due to the schedule or construction phasing plan developed by the Contractor shall not warrant additional payment. Any survey work not performed to the contract requirements shall be subject to price reduction or rejection.

Partial payments for Construction Surveying will be determined by a schedule of payments for the whole project submitted by the Contractor and accepted by the Engineer before the first partial payment is made. Copies of the Survey Records for all completed survey work shall be submitted to the Engineer prior to payment of the monthly estimate.

Before final payment is made, the following two items shall be completed, bear the seal and signature of the responsible PLS, and have copies submitted to the Engineer for review:

- 1) All survey records
- 2) Supplemental or amended Project Control Diagram

**CITY OF COLORADO SPRINGS**

**SCHEDULE G**

**TECHNICAL SPECIFICATIONS**

The Standard Specifications for this project shall be the **latest version** of the “**CITY OF COLORADO SPRINGS ENGINEERING DIVISIONS STANDARD SPECIFICATIONS**”, (revised Feb. 1995, General Provisions revised January 2008 and Sections 400, 410 and 420 Revised January 2007), except as modified hereinafter, which are incorporated in the contract documents by reference as though embodied herein in their entirety.

All Contractors on this project are required to have on the job site and utilize the current updated copy of the City of Colorado Springs Engineering Divisions Standard Specifications.

Copies are available for purchase at the cost of \$25.00 from the City of Colorado Springs, City Engineering Division, Suite 403, 30 South Nevada Avenue, Colorado Springs, during regular business hours.

**SCHEDULE H**

**EXHIBITS**

This section includes the examples of the forms used for submitting the required bonds as well as a sample contract format, which will be issued as a result of this solicitation:

- Exhibit 1 -- Bid Bond
- Exhibit 2 -- Performance Bond
- Exhibit 3 -- Materials and Payment Bond
- Exhibit 4 -- Maintenance Bond
- Exhibit 5 -- Sample Contract
- Exhibit 6 -- Minimum Insurance Requirements
- Exhibit 7- Representations and Certifications

**APPENDIX 1**

Index of Drawings

CITY OF COLORADO SPRINGS

EXHIBIT 1 - CITY OF COLORADO SPRINGS BID BOND

1. KNOW ALL MEN BY THESE PRESENTS, THAT:

\_\_\_\_\_  
(Name)

As Principal, hereinafter called Principal, and

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(SURETY Name)

a corporation organized and existing under the laws of the State of:

\_\_\_\_\_  
(SURETY Address)

and AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called Surety, are held firmly bound to the CITY OF COLORADO SPRINGS, COLORADO, as Obligee, hereinafter called the Obligee, in the sum of: (Insert Proposal Amount in Words)

\_\_\_\_\_ (\$ \_\_\_\_\_ DOLLARS),

lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, successors and assigns, jointly and severally, firmly by these presents.

2. WHEREAS, the Principal has submitted to the Obligee,

a contract bid dated the \_\_\_\_\_ day of \_\_\_\_\_ For the following contract:

3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT, If Principals bid is accepted by Obligee and Principal is awarded the contract in whole or in part, and the Principal shall enter into the contract with the Obligee in accordance with the terms of such bid, and give such Payment, Performance, and Maintenance bond or bonds as may be specified in the bidding or contract documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall promptly pay to the Obligee the amount of this bond as set forth herein above, then this obligation shall be null and void, otherwise this obligation to remain in full force and effect.

Signed and sealed on the dates set forth below:

\_\_\_\_\_  
(Witness) FOR: \_\_\_\_\_  
(Principals Name)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Seal) ITS: \_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_

\_\_\_\_\_  
(Witness) FOR: \_\_\_\_\_  
(Surety's Name)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Seal) ITS: \_\_\_\_\_

This \_\_\_\_\_ Day of \_\_\_\_\_

Bond # \_\_\_\_\_ This Bond  (is) \_\_\_ (is not) a SBA Guaranteed Bond.

EXHIBIT 2 – PERFORMANCE BOND

CITY OF COLORADO SPRINGS PERFORMANCE BOND

1. KNOW ALL MEN BY THESE PRESENTS, THAT:

\_\_\_\_\_  
(Name) \_\_\_\_\_ As Principal, hereinafter called Principal, and

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(SURETY Name) \_\_\_\_\_ a corporation organized and existing under  
the laws of the State of:

\_\_\_\_\_  
(SURETY Address)

and AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called Surety, are held firmly bound to the CITY OF COLORADO SPRINGS, COLORADO, as Obligee, hereinafter called the Obligee, in the sum of: (Insert Proposal Amount in Words)

\_\_\_\_\_ (\$ \_\_\_\_\_ DOLLARS),

lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, successors and assigns, jointly and severally, firmly by these presents.

2. WHEREAS, the Principal and the Obligee have entered into,  
a contract dated the \_\_\_\_\_ day of \_\_\_\_\_ For the following project:

Contract # \_\_\_\_\_ which contract is by reference made a part hereof, and referred to as the Contract.

3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT if the Principal shall promptly and faithfully perform all terms, conditions and other obligations of the Contract, and any modifications or extensions thereof granted by the Obligee, then this obligation shall be null and void: otherwise this obligation shall remain in full force and effect.

4. The Surety for value received agrees that no extension of time, change in, addition to, or other alteration modification of the terms, conditions or obligations of the Contract or work to be performed thereunder, or any forbearance on the part of either the Obligee or the Principal to the other shall in any way release or affect the liability or obligation of this Bond, and the Surety hereby waives notice of any such extension of time, change, addition, modification, alteration or forbearance.

Signed and sealed on the dates set forth below:

\_\_\_\_\_  
(Witness) FOR: \_\_\_\_\_  
(Principals Name)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Seal) ITS: \_\_\_\_\_  
This \_\_\_\_\_ Day of \_\_\_\_\_

\_\_\_\_\_  
(Witness) FOR: \_\_\_\_\_  
(Surety's Name)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Seal) ITS: \_\_\_\_\_  
This \_\_\_\_\_ Day of \_\_\_\_\_

Bond # \_\_\_\_\_ This Bond \_\_ (is) \_\_ (is not) a SBA Guaranteed Bond.

CITY OF COLORADO SPRINGS

EXHIBIT 3 - CITY OF COLORADO SPRINGS LABOR & MATERIAL PAYMENT BOND

1. KNOW ALL MEN BY THESE PRESENTS, THAT:

\_\_\_\_\_  
(Name)

As Principal, hereinafter called Principal, and

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(SURETY Name)

a corporation organized and existing under the laws of the State of:

\_\_\_\_\_  
(SURETY Address)

and AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called Surety, are held firmly bound to the CITY OF COLORADO SPRINGS, COLORADO, as Obligee, hereinafter called the Obligee, in the sum of: (Insert Proposal Amount in Words)

(\$            DOLLARS),

lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, successors and assigns, jointly and severally, firmly by these presents.

2. WHEREAS, the Principal and the Obligee have entered into,

a contract dated the \_\_\_\_\_ day of \_\_\_\_\_ For the following project:

Contract # \_\_\_\_\_ which contract is by reference made a part hereof, and referred to as the Contract.

3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the Principal shall promptly make payments of all amounts lawfully due to all persons supplying or furnishing the Principal or the Principals subcontractors with labor, materials, rental machinery, tools or equipment used or performed in the prosecution of the work provided for in the Contract; and if the Principal shall indemnify and save harmless the Obligee to the extent of any payments in connection with the carrying out of the Contract which the Obligee may be required to pay under the law, all in accord with Colorado State Law, Section 38-26-105 C.R.S., then this obligation shall be null and void; otherwise this obligation shall remain in full force and effect.

AND FURTHER, should the Principal or the Principals subcontractors fail to duly pay for any labor, materials, team hire, sustenance, provisions, provender, or other supplies used or consumed by the Principal or the Principals subcontractors in the performance of the work contracted to be done or fails to pay any person who supplies rental machinery, tools or equipment, all amounts due as the result of the use of such machinery, tools, or equipment, in the prosecution of the work under the Contract, the Surety shall pay the same in an amount not exceeding the sum specified in this Bond together with interest at the rate of eight percent per annum, in accord with Colorado State Law, Section 38-26-106 C.R.S.

In accord with Colorado State Law, Section 38-26-105 C.R.S., actions against the Principal and Surety under this Bond shall be brought within six months after the final completion of the Contract as defined by the ordinances, rules and regulations of the City of Colorado Springs, Colorado, a home rule City, and not afterwards.

4. The Surety for value received agrees that no extension of time, change in, addition to, or other alteration or modification of the terms, conditions or obligations of the Contract or work to be performed thereunder, or any forbearance on the part of either the Obligee or the Principal to the other shall in any way release or affect the Surety's liability or obligation on this Bond, and the surety hereby waives notice of any such extension of time, change, addition, modification, alteration or forbearance.

Signed and sealed on the dates set forth below:

\_\_\_\_\_  
(Witness) FOR: \_\_\_\_\_  
(Principals Name)

CITY OF COLORADO SPRINGS

Page Two (2) of Labor & Material Payment Bond

BY: \_\_\_\_\_

ITS: \_\_\_\_\_

(Seal)

This \_\_\_\_\_ day of \_\_\_\_\_

FOR: \_\_\_\_\_

\_\_\_\_\_  
(Witness)

(Surety's Name)

BY: \_\_\_\_\_

ITS: \_\_\_\_\_

(Seal)

This \_\_\_\_\_ day of \_\_\_\_\_

Bond  
# \_\_\_\_\_

This Bond \_\_\_ (is) \_\_\_ (is not) a SBA Guaranteed Bond.

CITY OF COLORADO SPRINGS

EXHIBIT 4 - CITY OF COLORADO SPRINGS MAINTENANCE BOND

1. KNOW ALL MEN BY THESE PRESENTS, THAT:

\_\_\_\_\_  
(Name) As Principal, hereinafter called Principal, and

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(SURETY Name) a corporation organized and existing under the laws of the State of:

\_\_\_\_\_  
(SURETY Address)

and AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called Surety, are held firmly bound to the CITY OF COLORADO SPRINGS, COLORADO, as Oblige, hereinafter called the Oblige, for the use and benefit of claimants as herein below defined, in the amount of: (Insert Proposal Amount in Words)

\_\_\_\_\_ (\$ \_\_\_\_\_ DOLLARS),

lawful money of the United States of America, together with interest as may be provided by law, for the maintenance and guarantee obligations of the Contract, for the payment whereof Principal and Surety bind themselves, their heirs, executors, successors and assigns, jointly and severally, firmly by these presents.

2. WHEREAS, the Principal and the Oblige have entered into,

a contract dated the \_\_\_\_\_ day of \_\_\_\_\_ For the following project:

Contract # \_\_\_\_\_ which contract is by reference made a part hereof, and referred to as the Contract.

3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the Principal shall promptly, properly and without cost to Oblige perform all maintenance and other guarantee obligations under the terms of the Contract, including any modifications or extensions thereof granted by the Oblige, for a period of TWO (2) year(s) from the date of final payment upon the Contract by the Oblige, and in the case of each correction or repair, during a period of one year after the date of said correction or repair or for the remaining period of years set forth herein, whichever is longer, then this obligation shall be null and void; otherwise this obligation shall remain in full force and effect.

4. The Surety for value received agrees that no extension of time, change in, addition to, or other alteration or modification of the terms, conditions or obligations of the Contract or work to be performed thereunder, or any forbearance on the part of either the Oblige or the Principal to the other shall in anyway release affect the Surety's liability or obligation on this Bond, and the surety hereby waives notice of any such extension of time, change, addition, modification, alteration or forbearance.

Signed and sealed on the dates set forth below:

\_\_\_\_\_  
(Witness) FOR: \_\_\_\_\_  
(Principals Name)

BY: \_\_\_\_\_

ITS: \_\_\_\_\_

(Seal) This \_\_\_\_\_ day of \_\_\_\_\_

\_\_\_\_\_  
(Witness) FOR: \_\_\_\_\_  
(Surety's Name)

BY: \_\_\_\_\_

ITS: \_\_\_\_\_

(Seal) This \_\_\_\_\_ day of \_\_\_\_\_

Bond # \_\_\_\_\_ This Bond \_\_ (is) \_\_ (is not) a SBA Guaranteed Bond.

EXHIBIT 5 - SAMPLE CONTRACT

CONSTRUCTION CONTRACT

Contract Number:		Project Name/Title	PIKES PEAK STORM DRAIN AND POTABLE WATER		
Vendor/Contractor					
Contact Name:		Telephone:		Email:	
Address:					
Federal Tax ID #		Please check one:	<input type="checkbox"/> Corporation <input type="checkbox"/> Individual <input type="checkbox"/> Partnership		
City Contracting Specialist	Name & Phone# Nicole Spindler 719/385-5265	City Dept Rep	Name & Phone# & Department Name City Engineering		
NOT TO EXCEED Contract Amount:		City Account #	Acct Code (5)	Fund (3)	Dept (4) Project (7) 9370027
Contract Type:		Period of Performance:			
Contract Value Amount:		Contract Funding Amount:			

**1. INTRODUCTION**

THIS TYPE CONTRACT ("Contract") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2016 by and between the City of Colorado Springs, a Colorado municipal corporation and home rule city, in the County of El Paso, State of Colorado, (the "City"), and \_\_\_\_\_ (the "Contractor").

THE CITY AND THE CONTRACTOR HEREBY AGREE AS FOLLOWS:

The City has heretofore prepared the necessary Contract Documents for the following Activity: XXXXXXXX.

The Contractor did on the \_\_\_\_ day of \_\_\_\_\_, 2016 submit to the City the Contractor's written offer and proposal to do the work therein described under the terms and conditions therein set forth and furnish all materials, supplies, labor, services, transportation, tools, equipment, and parts for said work in strict conformity with the accompanying Contract Documents, which are attached hereto and incorporated herein by this reference, including the following:

1. This Contract Document
2. Appendix A – Additional Terms and Conditions
3. Appendix B – Contractor’s Proposal,
4. Appendix C – Statement of Work.
5. Schedule A – Proposal Price Sheet
6. Schedule B – General Construction Terms and Conditions
7. Schedule C – Special Construction Terms and Conditions
8. Schedule D – General Specifications
9. Schedule E – Special Specifications

- 10. Exhibit 1 – Performance Bond
- 11. Exhibit 2 – Labor and Material Payment Bond
- 12. Exhibit 3 – Maintenance Bond
- 13. Exhibit 4 – Notification of Utilities
- 14. Exhibit 5 – Project Schedule

## 2. COMPENSATION/CONSIDERATION

If FFP:

THIS FIRM FIXED PRICE CONTRACT is established at firm fixed amount of \$xxxxxxx.

Subject to the terms and conditions of the Contract Documents, Contractor shall provide all materials, supplies, labor, services, transportation, tools, equipment, and parts to perform \_\_\_\_\_ services for the City of Colorado Springs in a good and workmanlike manner to the satisfaction of the City for the total contract amount designated above and in the Notice of Award, to be paid by the City to the Contractor.

If T&M

Subject to the terms and conditions of the Contract Documents, Contractor shall provide all materials, supplies, labor, services, transportation, tools, equipment, and parts to perform \_\_\_\_\_ services for the City of Colorado Springs in a good and workmanlike manner to the satisfaction of the City for the estimated price of \_\_\_\_\_, not to exceed \$\_\_\_\_\_ (“Not to Exceed estimate”). If the performance of this Contract involves the services of others or the furnishing of equipment, supplies, or materials, the Contractor agrees to pay for the same in full. At the time of payment by the City, the Contractor shall certify in writing that said payments have been so made.

This is a Time and Material (T&M) type contract. The Not to Exceed estimate is in accordance with the Contractor’s T&M proposal and rates, as included in the attached proposal, dated XXXXXX. All labor charges shall be in accordance with the T&M rates provided therein. Invoiced hours shall be subject to City review and approval before payable.

The parties estimate that performance of this Contract will not exceed the Not to Exceed estimate. The Contractor shall notify the City Contracts Specialist in writing whenever it has reason to believe that the costs the Contractor expects to incur under this Contract in the following 60 days, when added to all costs previously incurred, will exceed 75 percent of the estimated cost specified herein; or the total cost for the performance of this Contract will be either greater or substantially less than had been previously estimated. As part of the notification, the Contractor shall provide the Contracts Specialist a revised estimate of the total cost of performing this Contract.

The City is not liable for any costs above the Not to Exceed estimate, and the Contractor is not obligated to continue performance under this Contract (including actions under the Termination clause of this Contract) or otherwise incur costs in excess of the Not to Exceed estimate specified herein, until the City Contracts Specialist

- (i) notifies the Contractor in writing that the estimated cost has been increased and
- (ii) provides a revised estimated total not to exceed price of performing this Contract.

**IF FIXED UNIT PRICE**

THIS FIXED UNIT PRICE CONTRACT is established at the Not to Exceed amount of \$xxxxxxx.

Subject to the terms and conditions of the Contract Documents, Contractor agrees to furnish all materials and to perform all work as set forth in its proposal and as required by the Contract Documents.

All pricing is in accordance with the fixed unit prices found in Schedule A, as proposed by the Contractor. Payment made for actual quantities as set forth in Schedule B, General Construction Terms and Conditions. At no time shall the total obligation of the City exceed the not to exceed amount of this Contract.

**3. TERM OF CONTRACT**

Contractor will start work promptly after the Notice to Proceed and continue to work diligently until completed. The Contractor shall complete all work on an as ordered basis throughout the Contract period which is \_\_\_\_\_ **Calendar Days** after the Notice-to-Proceed ("Period of Performance") as per the specifications and drawings. The Contractor shall provide a two-year guarantee on all work performed under this Contract after the job has been completed and accepted.

**4. INSURANCE**

The Contractor shall provide and maintain an acceptable Certificate of Insurance Policy(s) which includes Property, Liability and Professional Errors and Omissions coverage, as listed in Schedule F. The City of Colorado Springs shall be reflected as an additional insured on the Property and Liability policy(s).

Further, Contractor understands and agrees that Contractor shall have no right of coverage under any existing or future City comprehensive, self, or personal injury policies. Contractor shall provide insurance coverage for and on behalf of Contractor that will sufficiently protect Contractor, or Contractor's agents, employees, servants or other personnel, in connection with the services which are to be provided by Contractor pursuant to this Contract, including protection from claims for bodily injury, death, property damage, and lost income. Contractor shall provide worker's compensation insurance coverage for Contractor and all Contractor personnel. Contractor shall file applicable insurance certificates with the City and shall also provide additional insurance as indicated in this Contract. ***A CURRENT CERTIFICATE OF INSURANCE IS REQUIRED PRIOR TO COMMENCEMENT OF SERVICES LISTING THE CITY AS ADDITIONALLY INSURED.***

**5. RESPONSIBILITY OF THE CONTRACTOR**

- A. The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all Scope of Work services furnished by the Contractor under this Contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiencies in services provided under this Contract to the satisfaction of the City.
- B. The City's review, approval of, acceptance of, or payment for the services required under this Contract shall not be construed to operate as a waiver of any rights under this Contract or of any cause of action arising out of the performance of this Contract, and the Contractor shall be and remain liable to the City for any and all damages to the City caused by the Contractor's negligent performance of any of the services furnished under this Contract.

- C. The rights and remedies of the City provided for under this Contract are in addition to any other rights and remedies provided by law.
- D. If the Contractor is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

## **6. WORK OVERSIGHT**

- A. The extent and character of the work to be done by the Contractor shall be subject to the general approval of the City's delegated Project Manager.
- B. If any of the work or services being performed does not conform with Contract requirements, the City may require the Contractor to perform the work or services again in conformity with Contract requirements, at no increase in Contract amount. When defects in work or services cannot be corrected by re-performance, the City may (1) require the Contractor to take necessary action to ensure that future performance conforms to Contract requirements and (2) reduce the Contract price to reflect the reduced value of the work or services performed.
- C. If the Contractor fails to promptly perform the defective work or services again or to take the necessary action to ensure future performance is in conformity with Contract requirements, the City may (1) by Contract or otherwise, perform the services and charge to the Contractor any cost incurred by the City that is directly related to the performance of such work or service or (2) terminate the Contract for breach of contract.

## **7. SUBCONTRACTORS, ASSOCIATES, AND OTHER CONTRACTORS**

- A. Any subcontractor, outside associates, or other contractors used by the Contractor in connection with Contractor's work under this Contract shall be limited to individuals or firms that are specifically identified by the Contractor in the Contractor's proposal and agreed to by the City. The Contractor shall obtain the City's Project Manager's written consent before making any substitution of these subcontractors, associates, or other contractors.
- B. The Contractor shall include a flow down clause in all of its subcontracts, agreements with outside associates, and agreements with other contractors. The flow down clause shall cause all of the terms and conditions of this Contract, including all of the applicable parts of the Contract Documents, to be incorporated into all subcontracts, agreements with outside associates, and agreements with other contractors. The flow down clause shall provide clearly that there is no privity of contract between the City and the Contractor's subcontractors, outside associates, and other contractors.

## **8. KEY PERSONNEL**

The key personnel listed in the proposal and/or below will be the individuals used in the performance of the work. If any of the listed key personnel leave employment or are otherwise not utilized in the performance of the work, approval to substitute must be obtained by the Contractor from the City's Project Manager. Any substitute shall have the same or a higher standard of qualifications that the key personnel possessed at the time of Contract award.

## **9. START AND CONTINUANCE OF WORK**

It is further agreed that the Contractor will start work promptly and continue to work diligently until this Contract is completed.

The following provisions shall apply to this Contract and shall take precedence and control in the event of conflict with any other provisions of the Contract:

## **10. APPROPRIATION OF FUNDS**

This Contract is expressly made subject to the limitations of the Colorado Constitution and Section 7-60 of the Charter of the City of Colorado Springs. Nothing herein shall constitute, nor be deemed to constitute, the creation of a debt or multi-year fiscal obligation or an obligation of future appropriations by the City Council of Colorado Springs, contrary to Article X, § 20, Colo. Const., or any other constitutional, statutory, or charter debt limitation. Notwithstanding any other provision of this Contract, with respect to any financial obligation of the City which may arise under this Agreement in any fiscal year after the year of execution, in the event the budget or other means of appropriation for any such year fails to provide funds in sufficient amounts to discharge such obligation, such failure (i) shall act to terminate this Contract at such time as the then-existing and available appropriations are depleted, and (ii) neither such failure nor termination shall constitute a default or breach of this Contract, including any sub-agreement, attachment, schedule, or exhibit thereto, by the City. As used herein, the term "appropriation" shall mean and include the due adoption of an appropriation ordinance and budget and the approval of a Budget Detail Report (Resource Allocations) which contains an allocation of sufficient funds for the performance of fiscal obligations arising under this Contract.

## **11. CHANGES**

The Contractor and the City agree and acknowledge as a part of this Contract that no change order or other form or order or directive may be issued by the City which requires additional compensable work to be performed, which work causes the aggregate amount payable under the Contract to exceed the amount appropriated for this Contract as listed above, unless the Contractor has been given a written assurance by the City that lawful appropriations to cover the costs of the additional work have been made or unless such work is covered under a remedy-granting provision of this Contract. The Contractor and the City further agree and acknowledge as a part of this Contract that no change order or other form or order or directive which requires additional compensable work to be performed under this Contract shall be issued by the City unless funds are available to pay such additional costs, and, regardless of any remedy-granting provision included within this Contract, the Contractor shall not be entitled to any additional compensation for any change which increases or decreases the Contract completion date, or for any additional compensable work performed under this Contract, and expressly waives any rights to additional compensation, whether by law or equity, unless, prior to commencing the additional work, the Contractor was given a written change order describing the change in Contract completion date or the additional compensable work to be performed, and setting forth the amount of compensation to be paid, which change order was signed by the authorized City representative. The amount of compensation to be paid, if any, shall be deemed to cover any and all additional general, extended overhead, direct, indirect or other cost or expense or profit of the Contractor whatsoever. It is the Contractor's sole responsibility to know, determine, and ascertain the authority of the City representative signing any change order under this Contract.

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No change to this Contract shall be valid unless duly approved and issued in writing by the City of Colorado Springs Procurement Services Division. The City shall not be liable for any costs incurred by the Contractor resulting from work performed for changes not issued in writing by the City of Colorado Springs Procurement Services Division.

## **12. ASSIGNMENT**

No assignment or transfer by the Contractor of this Contract or any part thereof or of the funds to be received thereunder by the Contractor will be recognized unless such assignment has had the prior written approval of the City and the surety has been given due notice of such assignment. Such written approval by the City shall not relieve the Contractor of the obligations under the terms of this Contract. In addition to the usual recitals in assignment contracts, the following language must be included in the assignment:

It is agreed that the funds to be paid to the assignee under this assignment are subject to a prior lien for services rendered or materials supplied for the performance of the work called for in said contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

## **13. CHOICE OF LAW**

This Contract is subject to and shall be interpreted under the law of the State of Colorado, and the Charter, City Code, Ordinances, Rules and Regulations of the City of Colorado Springs, Colorado, a Colorado home rule city. Court venue and jurisdiction shall be exclusively in the Colorado District Court for El Paso County, Colorado. The Parties agree that the place of performance for this Contract is deemed to be in the City of Colorado Springs, El Paso County, State of Colorado. The Contractor shall ensure that the Contractor and the Contractor's employees, agents, officers and subcontractors are familiar with, and comply with, applicable Federal, State, and Local laws and regulations as now written or hereafter amended.

## **14. WORKERS' COMPENSATION INSURANCE**

Contractor shall take out and maintain during the Period of Performance, Colorado Worker's Compensation Insurance for the Contractor and all employees of the Contractor. If any service is sublet by the Contractor, the Contractor shall require the subcontractor to provide the same coverage for the subcontractor and subcontractor's employees. Workers' Compensation Insurance shall include occupational disease provisions covering any obligations of the Contractor in accord with the provisions of the Workers' Compensation Act of Colorado.

## **15. INDEMNIFICATION**

Contractor agrees that the Contractor shall indemnify, defend and hold harmless the City, its officers, employees and agents, from and against any and all loss, damage, injuries, claims, cause or causes of action, or any liability whatsoever resulting from, or arising out of, or in connection with the Contractor's obligations or actions under this Contract caused by any willful or negligent error, omission or act or a failure to observe any applicable standard of care by the Contractor or any person employed by it or anyone for whose acts the Contractor is legally liable. In consideration of the award of this Contract, to the extent damages are covered by insurance, the Contractor agrees to waive all rights of subrogation against the City, its subsidiary, parent, associated and/or affiliated entities, successors, or assigns, its elected officials, trustees,

employees, agents, and volunteers for losses arising from the work performed by the Contractor for the City.

## **16. INDEPENDENT CONTRACTOR**

In the performance of the Contractor's obligations under this Contract, it is understood, acknowledged and agreed between the parties that the Contractor is at all times acting and performing as an independent contractor, and the City shall neither have nor exercise any control or direction over the manner and means by which the Contractor performs the Contractor's obligations under this Contract, except as otherwise stated within the Contract terms. The City shall not provide any direction to the Contractor on the work necessary to complete the project. Contractor understands that it is an independent contractor responsible for knowing how to perform all work or tasks necessary to complete project. The Contractor understands and agrees that the Contractor and the Contractor's employees, agents, servants, or other personnel are not City employees. The Contractor shall be solely responsible for payment of salaries, wages, payroll taxes, unemployment benefits or any other form of compensation or benefit to the Contractor or any of the Contractor's employees, agents, servants or other personnel performing services or work under this Contract, whether it is of a direct or indirect nature. Further in that regard, it is expressly understood and agreed that for such purposes neither the Contractor nor the Contractor's employees, agents, servants or other personnel shall be entitled to any City payroll, insurance, unemployment, worker's compensation, retirement or any other benefits whatsoever.

## **17. APPLICABLE LAW AND LICENSES**

In the conduct of the services or work contemplated in this Contract, the Contractor shall ensure that the Contractor and all subcontractors comply with all applicable state, federal and City and local law, rules and regulations, technical standards or specifications. The Contractor shall qualify for and obtain any required licenses prior to commencement of work.

## **18. PRIOR AGREEMENTS**

This is a completely integrated Contract and contains the entire agreement between the parties. Any prior written or oral agreements or representations regarding this Contract shall be of no effect and shall not be binding on the City. This Contract may only be amended in writing, and executed by duly authorized representatives of the parties hereto.

## **19. INTELLECTUAL PROPERTY RESERVED**

## **20. WAIVERS**

No waiver of default by the City of any of the terms, covenants, and conditions hereof to be performed, kept, and observed by the Contractor shall be construed, or shall operate, as a waiver of any subsequent default of any of the terms, covenants, or conditions herein contained to be performed, kept, and observed by the Contractor.

## **21. THIRD PARTIES**

It is expressly understood and agreed that enforcement of the terms and conditions of this Contract, and all rights of action relating to such enforcement, shall be strictly reserved to the Parties hereto, and nothing contained in this Contract shall give or allow any such claim or right of action by any other or third person or entity on such Contract. It is the express intention of the Parties hereto that any person or entity, other than the Parties to this Contract, receiving services or benefits under this Contract shall be deemed to be incidental beneficiaries only.

## 22. TERMINATION

### A. Termination for Convenience.

By signing this Contract, Contractor represents that it is a sophisticated business and enters into the Contract voluntarily, has calculated all business risks associated with this Contract, and understands and assumes all risks of being terminated for convenience, whether such risks are known or not known. Contractor agrees that the City may terminate this Contract at any time for convenience of the City, upon written notice to the Contractor. Contractor expressly agrees to and assumes the risk that the City shall not be liable for any costs or fees of whatsoever kind and nature if termination for convenience occurs before Contractor begins any work or portion of the work. Contractor further expressly agrees and assumes the risks that the City shall not be liable for any unperformed work, anticipated profits, overhead, mobilizations costs, set-up, demobilization costs, relocation costs of employees, layoffs or severance costs, administrative costs, productivity costs, losses on disposal of equipment or materials, cost associated with the termination of subcontractors, costs associated with purchase orders or purchases, or any other costs or fees of any kind and nature, if Contractor has started or performed portions of the Contract prior to receiving notice from the City. The City shall be liable only for the portions of work Contractor actually satisfactorily completed up to the point of the issuance of the Notice of Termination for convenience. Upon receipt of this notice the Contractor shall immediately: discontinue all services affected (unless the notice directs otherwise), and deliver to the City all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this Contract, whether completed or in process.

### B. Termination for Cause: The occurrence of any one or more of the following events ("Event of Default") will justify termination for cause:

- i. Contractor's failure to perform the work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule as adjusted from time to time.
- ii. Contractor's disregard of the laws or regulations of any public body having jurisdiction.
- iii. Contractor's disregard of the authority of Project Manager.
- iv. Contractor's violation in any material provision of the Contract Documents.
- v. Contractor's failure to make prompt payments to its subcontractors, and suppliers of any tier, or laborers or any person working on the work by, through, or under the Contractor or any of them, any all of their employees, officers, servants, members, and agents.
- vi. Contractor files a petition commencing a voluntary case under the U.S. Bankruptcy Code, or for liquidation, reorganization, or an arrangement pursuant to any other U.S. or state bankruptcy Laws, or shall be adjudicated a debtor or be declared bankrupt or insolvent under

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the U.S. Bankruptcy Code, or any other federal or state laws relating to bankruptcy, insolvency, winding-up, or adjustment of debts, or makes a general assignment for the benefit of creditors, or admits in writing its inability to pay its debts generally as they become due, or if a petition commencing an involuntary case under the U.S. Bankruptcy Code or an answer proposing the adjudication of Contractor as a debtor or bankrupt or proposing its liquidation or reorganization pursuant to the Bankruptcy Code or any other U.S. federal or state bankruptcy laws is filed in any court and Contractor consents to or acquiesces in the filing of that pleading or the petition or answer is not discharged or denied within sixty (60) Calendar Days after it is filed.

vii. A custodian, receiver, trustee or liquidator of Contractor, all or substantially all of the assets or business of Contractor, or of Contractor's interest in the Work or the Contract, is appointed in any proceeding brought against Contractor and not discharged within sixty (60) Calendar Days after that appointment, or if Contractor shall consent to or acquiesces in that appointment.

viii. Contractor fails to commence correction of defective work or fails to correct defective work within a reasonable period of time after written notice.

If one or more of the events identified in Paragraphs i-viii above occur, City may give Contractor written notice of the event and direct the event be cured. Any such Notice to Cure will Contractor a minimum of ten (10) calendar days to prepare and submit to the Project Manager a plan to correct the Event of Default. If such plan to correct the Event of Default is not submitted to the Project Manager within ten (10) days after the date of the written notice or such plan is unacceptable to the City, the City may, give Contractor (and the Surety, if any) written notice that Contractor's services are being terminated for cause. Upon delivery of the termination notice, City may terminate the services of Contractor in whole or in part, exclude Contractor from the site, and take possession of the work and of all Contractor's tools, appliances, construction equipment, and machinery at the project site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion), incorporate in the work all materials and equipment stored at the site or for which City has paid Contractor but which are stored elsewhere, and finish the work as City may deem expedient. In such case, Contractor shall not be entitled to receive any further payment until Certificate of Completion of the work. In the event City terminates this Contract for Cause and the cost of completing the work exceeds the unpaid balance of the Contract price, Contractor shall pay City for any costs of completion which exceed the Contract price when combined with all amounts previously paid to Contractor. When exercising any rights or remedies under this paragraph City shall not be required to obtain the lowest price for the work performed. Should the cost of such completion, including all proper charges, be less than the original Contract price, the amount so saved shall accrue to the City. Neither the City nor any officer, agent or employee of the City shall be in any way liable or accountable to the Contractor or the Surety for the method by which the completion of the said work, or any portion thereof, may be accomplished or for the price paid.

Where Contractor's services have been so terminated by City, the termination will not affect any rights or remedies of City against Contractor or Surety then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by City will not release Contractor from liability.

C. Termination Notice. Upon receipt of a termination notice, whether for convenience or cause, the Contractor shall immediately: discontinue all services affected (unless the notice directs otherwise), and deliver to the City all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this Contract, whether completed or in process.

D. Removal of Equipment. Except as provided above, in the case of termination of this Contract before completion from any cause whatever, the Contractor, if notified to do so by the City, shall promptly remove any part or all of Contractor's equipment and supplies from the property of the City, failing which the City shall have the right to remove such equipment and supplies at the expense of the Contractor.

## **23. BOOKS OF ACCOUNT AND AUDITING**

The Contractor shall make available to the City if requested, true and complete records, which support billing statements, reports, performance indices, and all other related documentation. The City's authorized representatives shall have access during reasonable hours to all records, which are deemed appropriate to auditing billing statements, reports, performance indices, and all other related documentation. The Contractor agrees that it will keep and preserve for at least seven years all documents related to the Contract which are routinely prepared, collected or compiled by the Contractor during the performance of this Contract.

The City's Auditor and the Auditor's authorized representatives shall have the right at any time to audit all of the related documentation. The Contractor shall make all documentation available for examination at the Auditor's request at either the Auditor's or Contractor's offices, and without expense to the City.

## **24. ILLEGAL ALIENS**

Illegal Aliens - Public Contracts for Services - Compliance with Title 8, Article 17.5, Colorado Revised Statutes: The Contractor acknowledges, understands, agrees, and certifies that: In the performance of any work or the provision of any services by the Contractor under this Contract, the Contractor shall not knowingly employ or contract with an illegal alien to perform work under this Contract; or enter into a contract with any subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Contract or under the subcontract to this Contract. The Contractor certifies in accord with Section 8-17.5-102(1) C.R.S. that, on the date the Contractor signs this Contract, the Contractor does not knowingly employ or Contract with an illegal alien who will perform work under this Contract and that the Contractor shall participate in the e-verify program or Colorado Department of Labor and Employment program in order to confirm the employment eligibility of all employees who are newly hired for employment or to perform work under this Contract. The Contractor is expressly prohibited from using the e-verify program or Colorado Department of Labor and Employment program procedures to undertake pre-employment screening of job applicants while this Contract and any services under this Contract are being performed. If the Contractor obtains actual knowledge that a subcontractor performing work under this Contract for services knowingly employs or contracts with an illegal alien, the Contractor shall notify the subcontractor and the City within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien, and terminate the subcontract with the subcontractor if within three days of receiving the notice the subcontractor does not stop employing or contracting with the illegal alien; except that the Contractor shall not terminate the

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Contract with the subcontractor if during the three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien. The Contractor shall comply with any request by the City, federal government, or the Colorado Department of Labor and Employment made in the course of an investigation. If the Contractor violates or fails to comply with any provision of C.R.S. 8-17.5-101 et seq, the City may terminate this Contract for breach of contract. If this Contract is so terminated, the Contractor shall be liable for any actual and consequential damages to the City.

**25. COMPLIANCE WITH IMMIGRATION REFORM AND CONTROL ACT OF 1986**

Contractor certifies that Contractor has complied with the United States Immigration Reform and Control Act of 1986. All persons employed by Contractor for performance of this Contract have completed and signed Form I-9 verifying their identities and authorization for employment.

**26. LABOR**

The Contractor shall employ only competent and skilled workmen and foremen in the conduct of work on this Contract. The Contractor shall at all times enforce strict discipline and good order among Contractor's employees. The Project Manager shall have the authority to order the removal from the work of any person, including Contractor's or any subcontractor's employees, who refuses or neglects to observe any of the provisions of these Plans or Specifications, or who is incompetent, abusive, threatening, or disorderly in conduct and any such person shall not again be employed on the Project.

In accord with the Keep Jobs in Colorado Act, codified at sections 8-17-101, et seq., C.R.S., Colorado labor shall be employed to perform the work to the extent of not less than eighty percent (80%) of each type or class of labor in the several classifications of skilled and common labor employed on this Project et seq.; provided however, that this paragraph shall not apply if the Project receives federal funding.

In no event shall the City be responsible for overtime pay.

**27. GRATUITIES**

- A. This Contract may be terminated if the Mayor, the Mayor's designee, and/or the Procurement Services Manager determine, in their sole discretion, that the Contractor or any officer, employee, agent, or other representative whatsoever, of the Contractor offered or gave a gift or hospitality to a City officer, employee, agent or Contractor for the purpose of influencing any decision to grant a City contract or to obtain favorable treatment under any City contract.
- B. The terms "hospitality" and "gift" include, but are not limited to, any payment, subscription, advance, forbearance, acceptance, rendering or deposit of money, services, or anything of value given or offered, including but not limited to food, lodging, transportation, recreation or entertainment, token or award.
- C. Contract termination under this provision shall constitute a breach of contract by the Contractor, and the Contractor shall be liable to the City for all costs of reletting the contract or completion of the project. Further, if the Contractor is terminated under this provision, or violates this provision but is not terminated, the Contractor shall be subject to debarment under the City's Procurement Regulations. The rights and remedies of the City provided in this clause

shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

## **28. NON-DISCRIMINATION**

- A. In accord with section 24-34-402, C.R.S., the Contractor will not discriminate against any employee or applicant for employment because of disability, race, creed, color, sexual orientation, religion, age, national origin, or ancestry. But, with regard to a disability, it is not a discriminatory or an unfair employment practice for an employer to take into consideration disability if there is no reasonable accommodation that the employer can make with regard to the disability, the disability actually disqualifies the person from the job, and the disability has a significant impact on the job. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their disability, race, creed, color, sexual orientation, religion, age, national origin, or ancestry. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training; including apprenticeship.
- B. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- C. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to disability, race, creed, color, sexual orientation, religion, age, national origin, or ancestry.
- D. Contractor will cooperate with the City in using Contractor's best efforts to ensure that Disadvantaged Business Enterprises are afforded the maximum opportunity to compete for subcontracts or work under this Contract.

## **29. ORDER OF PRECEDENCE**

Any inconsistency in this Contract shall be resolved by giving precedence in the following order:

- A. This Contract document with its terms and conditions
- B. Specific Construction Terms and Conditions
- C. General Construction Terms and Conditions
- D. The Statement of Work
- E. Specific Specifications
- F. General Specifications
- G. Other Appendices, Attachments, Exhibits, or Schedules

## **30. HEADINGS**

The section headings contained in this Contract are for reference purposes only and shall not affect the meaning or interpretation of this Contract.

## **31. DISPUTES**

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- A. All administrative and contractual disputes arising from or related to this Contract other than those arising under Unanticipated Circumstances provisions (in section 107.27 of Schedule B General Construction Terms and Conditions) shall be addressed in the following manner:
- i. If either Party disputes or disagrees with a Contract term or the other Party's interpretation of a Contract term or has any other administrative or contractual dispute not addressed in the Unanticipated Circumstances provisions, such Party shall promptly give the other Party written notice of said dispute.
  - ii. The Parties shall hold a meeting as soon as reasonably possible, but in no event later than thirty (30) calendar days from the initial written notice of the dispute, attended by persons with decision-making authority regarding the dispute, to attempt in good faith to negotiate a resolution of the dispute; provided, however, that no such meeting shall be deemed to vitiate or reduce the obligations and liabilities of the Parties or be deemed a waiver by a Party of any remedies to which such Party would otherwise be entitled unless otherwise agreed to by the Parties in writing.
  - iii. If, within thirty (30) calendar days after such meeting, the Parties have not succeeded in negotiating a resolution of the dispute, they agree to submit the dispute to non-binding mediation and to bear equally the costs of the mediation.
  - iv. The Parties will jointly appoint a mutually acceptable mediator. If they fail to do so within twenty (20) calendar days from the conclusion of the negotiation period, they shall each select a mediator. The two mediators will then appoint a third mediator who shall conduct mediation for the Parties as the sole mediator.
  - v. The Parties agree to participate in good faith in the mediation and negotiations for a period of thirty (30) calendar days. The substantive and procedural law of the State of Colorado shall apply to the proceedings. If the Parties are not successful in resolving the dispute through mediation, then the Parties shall be free to pursue any other remedy afforded by the laws of the State of Colorado.
  - vi. Until final resolution of any dispute hereunder, the Contractor shall diligently proceed with the performance of this Contract as directed by the City. For purposes of this Contract, termination for convenience shall not be deemed a dispute. The City of Colorado Springs and the Contractor agree to notify each other in a timely manner of any claim, dispute, or cause of action arising from or related to this Contract, and to negotiate in good faith to resolve any such claim, dispute, or cause of action. To the extent that such negotiations fail, the City of Colorado Springs and the Contractor agree that any lawsuit or cause of action that arises from or is related to this Contract shall be filed with and litigated only by the Colorado District Court for El Paso County, CO.

### **32. DELIVERY**

The City may cancel this Contract or any portion thereof if delivery is not made when and as specified, time being of the essence in this Contract. Contractor shall pay the City for any loss or damage sustained by the City because of failure to perform in accordance with this Contract.

### **33. PAYMENTS**

All invoices shall be sent to the Project Manager identified in this Contract.

The City will pay the Contractor, upon submission of proper invoices, the prices stipulated in the Contract for services rendered and accepted, less any deductions provided in this Contract within 30 days (Net 30). The City will not pay late fees or interest. Any discount payment terms offered on the invoice may be taken by the City.

All payments for Construction will be made in accordance with the Payment provisions found in Schedule B – General Construction Terms and Conditions.

Each invoice must contain at least the following information:

Contract number, issued purchase order number, invoice number, invoice date, timeframe covered by invoice, type and amount of labor and materials used for that time period, dollar amount in unit price, extended price, and total value of invoice.

#### IF T&M

The City will make payments for services on a monthly basis for services performed during the previous month in accordance with this Contract. All labor Invoices shall include labor categories, rates, hours worked, and total amounts per category. All labor categories and rates charged must be included in this Contract. No other categories or rates will be allowed or payable. All labor invoices are subject to City approval.

Materials will be payable on a reimbursable basis with no additional profit, fee, overhead, handling, or General and Administrative (G&A) costs. All costs for materials shall be approved by the City Contracts Specialist before the costs are incurred and payable.

The City will pay the Contractor, upon submission of proper invoices, the prices stipulated in the Contract for services rendered and accepted, less any deductions provided in this Contract within 30 days (Net 30). The City will not pay late fees or interest. Any discount payment terms offered on the invoice may be taken by the City.

### **34. INSPECTION OF SERVICES**

The Contractor is responsible for performing or having performed all inspections and tests necessary to substantiate that the services furnished under this Contract conform to Contract requirements, including any applicable technical requirements for specified manufacturers' parts. This clause takes precedence over any City inspection and testing required in the Contract's specifications, except for specialized inspections or tests specified to be performed solely by the City.

- A. Definition of "services", as used in this clause, includes services performed, workmanship, and material furnished or utilized in the performance of services.
- B. The Contractor shall provide and maintain an inspection system acceptable to the City covering the services under this Contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the City during Contract performance and for as long afterwards as the Contract requires.
- C. The City has the right to inspect and test all services called for by the Contract, to the extent practicable at all times and places during the term of the Contract. The City will perform inspections and tests in a manner that will not unduly delay the work.
- D. If the City performs inspections or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in

Contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties.

### 35. SECURITY

The City maintains security requirements regarding access to City buildings and other City workplaces and worksites on City property. All Contractor personnel accessing City buildings, workplaces, or worksites, may be required to produce a valid, Government issued picture identification. Contractor personnel lacking such identification may not be allowed access to such sites. No costs incurred by the Contractor due to City security requirements shall be allowable or payable under this Contract.

### 36. TIME IS OF THE ESSENCE

In as much as the Contract concerns a needed or required service, the terms, conditions, and provisions of the Contract relating to the time of performance and completion of work are of the essence of this Contract. The Contractor shall begin work on the day specified and shall prosecute the work diligently so as to assure completion of the work within the number of calendar days or date specified, or the date to which the time for completion may have been extended.

### 37. EMPLOYMENT OF LABOR

The Contractor shall comply with, and defend and hold the City harmless from any violation of all laws and lawful rules and regulations, both of the State of Colorado and of the United States, relating to Workmen's Compensation, unemployment compensation, Social Security, payment for overtime, and all other expenses and conditions of employment under this Contract.

### 38. SALES TAX

The Contractor must have a tax-exemption certificate from the Colorado Department of Revenue for this project. The certificate does not apply to City of Colorado Springs Sales and Use Tax which shall be applicable. The tax exempt project number and the exemption certificate only applies to County, PPRTA (Pikes Peak Rural Transportation Authority), and State taxes when purchasing construction and building materials **to be incorporated into this project.**

Furthermore, the exemption **does not** include or apply to the purchase or rental of equipment, supplies or materials that **do not become a part of the completed project or structure.** Such purchases and rentals are subject to full applicable taxation.

All contracts with subcontractors must include the City of Colorado Springs Sales and Use Tax on the work covered by the Contract, and other taxes as applicable.

Note: For all equipment, materials and supplies incorporated into the work purchased from vendors or suppliers not licensed to collect City Sales Tax (i.e. out of state suppliers, etc.), City Use Tax is due and payable to the City. The Contractor shall execute and deliver, and shall cause the Contractor's subcontractors to execute and deliver to the City Sales Tax Office, ST 16 forms listing all said equipment, materials and supplies and the corresponding use tax due, along with payment for said taxes. Any outstanding taxes due may be withheld from the final payment due the Contractor and may result in suspension of Contractor from bidding on City projects.

CITY OF COLORADO SPRINGS

Forms and instructions can be downloaded at <https://coloradosprings.gov/cat/government/tax-information/sales-tax>. Questions can be directed to the City Sales Tax Division at (719) 385-5903.

Our Registration Numbers are as follows:

City of Colorado Springs

Federal I.D.: 84-6000573

Federal Excise: A-138557

State Sales Tax: 98-03479

The Contractor's payment or exemption of State of Colorado, El Paso County and City Sales and Use Taxes shall be as specified herein.

### **39. SEVERABILITY**

If any terms, conditions, or provisions of this Contract shall be held unconstitutional, illegal, or void, such finding shall not affect any other terms, conditions, or provisions of this Contract.

### **40. LIABILITY OF CITY EMPLOYEES**

All authorized representatives of the City are acting solely as agents and representatives of the City when carrying out and exercising the power or authority granted to them under the Contract. There shall not be any liability on them either personally or as employees of the City.

### **41. APPENDICES**

The following Appendices are made a part of this Agreement:

1. Appendix A – Additional Terms and Conditions
2. Appendix B – Contractor's Proposal,
3. Appendix C – Statement of Work.
4. Appendix D – Project Schedule
5. Appendix E – Exhibits from the RFP
  - Performance Bond (Exhibit 8 of the RFP)
  - Labor and Material Payment Bond (Exhibit 9 of the RFP)
  - Maintenance Bond (Exhibit 10 of the RFP)
  - Notification of Utilities (Exhibit 11 of the RFP)
6. Schedule A – Proposal Price Sheet
7. Schedule B – General Construction Terms and Conditions
8. Schedule C – Special Construction Terms and Conditions
9. Schedule D – General Specifications
10. Schedule E – Special Specifications
11. Schedule F – Insurance Requirements

**CONTRACT SIGNATURE PAGE**

The Contractor certifies in accord with Section 8-17.5-102(1) C.R.S. that, on the date the Contractor signs this Contract, the Contractor does not knowingly employ or Contract with an illegal alien who will perform work under this Contract and that the Contractor shall participate in the e-verify program or Colorado Department of Labor and Employment program in order to confirm the employment eligibility of all employees who are newly hired for employment or to perform work under this Contract. The Contractor is expressly prohibited from using the e-verify program or Colorado Department of Labor and Employment program procedures to undertake pre-employment screening of job applicants while this Contract and any services under this Contract are being performed.

**IN WITNESS WHEREOF**, the parties have caused these presents to be executed on the day and the year first above written.

This Contract is executed in one (1) original copy.

<b>THE CITY OF COLORADO SPRINGS, COLORADO:</b>

<b>SECOND PARTY:</b>	
Corporate Name	
Signature	Date
Title	

**CITY OF COLORADO SPRINGS**

**EXHIBIT 6 MINIMUM INSURANCE REQUIREMENTS**

The following listed minimum insurance requirements shall be carried by all contractors and consultants unless otherwise specified in the City’s solicitation package, Special Provisions, or Standard Specifications.

1.	<input checked="" type="checkbox"/>	Workers’ Compensation and Employers Liability as required by statute. Employers Liability coverage is to be carried for a minimum limit of \$100,000.
2.	<input checked="" type="checkbox"/>	Automobile Liability covering any auto (including owned, hired, and non-owned autos) with a minimum of \$1,000,000 each accident combined single limit.
3.	<input checked="" type="checkbox"/>	Commercial General Liability for limits not less than \$1,000,000 combined single limit for bodily injury and property damage for each occurrence. Coverage shall include blanket contractual, broad form property damage, products and completed operations and contractors protective endorsements.
4.	<input type="checkbox"/>	Liquor Legal Liability Insurance: If the event producer is a business that manufactures, distributes, sells, or serves alcoholic beverages, and intends to serve or sell alcoholic beverages at an event, they must also submit a Certificate of Insurance providing proof of a liquor legal liability insurance policy or properly endorsed general liability policy. <ul style="list-style-type: none"> <li>a. If this event producer hires a vendor to serve or sell alcoholic beverages, rather than providing the alcohol themselves, they must submit a Certificate of Insurance from the vendor providing proof of a liquor legal liability insurance policy or properly endorsed general liability policy.</li> <li>b. In either case, the minimum acceptable limit of liability per claim and aggregate is \$1,000,000. This requirement applies to the business or group which serves or sells the alcohol.</li> </ul>
5.	<input type="checkbox"/>	Technology Errors and Omissions Liability including Network Security and Privacy Liability not less than \$3,000,000 per loss with a \$3,000,000 aggregate. <ul style="list-style-type: none"> <li>a. The policy shall provide a waiver of subrogation.</li> <li>b. The insurance shall provide coverage for liability arising from theft, dissemination and/or use of confidential information stored or transmitted in electronic form.</li> <li>c. Network Security Liability arising from the unauthorized access to, use of or tampering to gain access to your services including denial of service, unless caused by a mechanical or electrical failure</li> <li>d. Liability arising from the introduction of a computer virus into, or otherwise causing damage to, a customer’s or third person’s computer, computer system, network or similar computer related property and the data, software, and programs thereon.</li> </ul>
6.	<input type="checkbox"/>	Excess Liability for limits not less than \$1,000,000 combined single limit for bodily injury and property damage for each occurrence.
7.	<input type="checkbox"/>	Builders Risk or Installation Floater Insurance: Contractor shall purchase and maintain property insurance written on a builder’s risk “all-risk” or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has an insurable interest in the property.
8.	<input type="checkbox"/>	Professional Liability Insurance covering any damages caused by an error, omission or any negligent Acts with limits of not less than \$1,000,000 per occurrence and in the aggregate. The coverage shall have an extended reporting period of 2 years following the date of substantial completion of the project for reporting of claims.

**CITY OF COLORADO SPRINGS**

9.		Pollution Legal Liability Insurance for limits of not less than \$1,000,000 for sudden and accidental incidents including on-site clean-up for new conditions, third party liability for bodily injury and property damage at on-site and off-site locations, and third party clean-up for new and pre-existing conditions.

Except for workers' compensation and employer's liability insurance, the **City of Colorado Springs must be named as an additional insured**. Certificates of Insurance must be submitted before commencing the work and provide 30 days' notice prior to any cancellation, non-renewal, or material changes to policies required under the contract.

All coverage furnished by contractor is primary, and any insurance held by the City of Colorado Springs is excess and non-contributory.

The undersigned certifies and agrees to carry and maintain the insurance requirements indicated above throughout the contract Period of Performance.

\_\_\_\_\_  
*(Name of Company)*

\_\_\_\_\_  
*(Signature)* *(Date)*

**RETURN THIS FORM WITH YOUR BID**

**EXHIBIT 7 REPRESENTATIONS AND CERTIFICATIONS**

**1. INSURANCE REQUIREMENTS**

This firm shall comply with all insurance requirements and will submit the Insurance Certificates prior to performance start date. If limits are different from the stated amounts, Contractor shall explain variance. Certain endorsements and “additionally insured” statements may require further clarification and specific statements on a project specific basis and should have been described in the Contractor’s proposal.

\_\_\_\_\_  
Initials for 1

**2. ETHICS VIOLATIONS**

- a) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in this clause in its own operations and direct business relationships.
- b) When the Contractor has reasonable grounds to believe that a violation described in this clause may have occurred, the Contractor shall promptly report the possible violation to the City Contracts Specialist in writing.
- c) The Contractor must disclose with the signing of this Contract, the name of any officer, director, or agent who is also an employee of the City and any City employee who owns, directly or indirectly, an interest of five percent (5%) or more in the Contractor’s firm or any of its branches.
- d) In addition, the Contractor must report any conflict or apparent conflict, current or discovered during the performance of the Contract, to the City Contracts Specialist.
- e) The Contractor shall not engage in providing gifts, meals or other amenities to City employees. The right of the Contractor to proceed may be terminated by written notice issued by City Contracts Specialist if Contractor offered or gave a gratuity to an officer, official, or employee of the City and intended by the gratuity to obtain a contract or favorable treatment under a contract.
- f) The Contractor shall cooperate fully with the City or any agency investigating a possible violation on behalf of the City. If any violation is determined, the contractor will properly compensate the City.
- g) The Contractor agrees to incorporate the substance of this clause in all subcontracts under this contract.

\_\_\_\_\_  
Initials for 2

**3. ILLEGAL ALIENS**

If Provider has any employees or subcontractors, Provider shall comply with § 8-17.5, C.R.S. regarding Illegal Aliens – Public Contracts for Services, and this section of this Agreement. 8-17.5-102 includes, in part, that:

- 1. Provider shall not:
  - a. Knowingly employ or contract with an illegal alien to perform work under this Agreement; or
  - b. Enter into a contract with a subcontractor that fails to certify to Provider that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.

CITY OF COLORADO SPRINGS

2. Provider has verified or attempted to verify that Provider does not employ any illegal aliens and, will participate in the E-Verify Program or State Department program in order to confirm eligibility of all employees who are newly hired to perform work under public contract for services.
3. Provider will not use E-Verify Program or State Department program procedures to undertake pre-employment screening of job applicants while the public contract for services is being performed.
4. If Provider obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, Provider shall:
  - a. Notify the subcontractor and the City within three days that Provider has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and
  - b. Terminate the subcontract with the subcontractor if within three days of receiving the notice under 4.a., the subcontractor does not stop employing or contracting with the illegal alien. However, the Provider shall not terminate the contract with the subcontractor if during this three day period:
    - i. The subcontractor provides information which establishes that the subcontractor has not knowingly employed or contracted with an illegal alien, and
    - ii. The Provider will not employ the illegal aliens in the performance of any City contract.
5. Provider shall comply with any reasonable request by the Department of Labor and Employment made in the course of an investigation that the Department is undertaking pursuant to the authority established in §8-17.5-102(5), C.R.S.
6. If Provider violates this provision, the City may terminate the Agreement for a breach of contract. If the Agreement is terminated, the Provider shall be liable for actual and consequential damages.

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Initials for 3

#### 4. COOPERATION WITH OTHER CONTRACTORS

Other City activities/contracts may be in progress or start during the performance of this contract. The Contractor shall coordinate the work harmoniously with the other contractors or City personnel.

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Initials for 4

#### 5. INTERNET USE

Should the Contractor require access to City Internet resources in the performance of this requirement, a "Contractor's Internet Use Agreement" form must be separately signed by each individual having access to the City Network. The completed Contractor's Internet Use Agreement will be maintained with this agreement. Inappropriate use of the City Network will be grounds for immediate termination of this Contact.

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Initials for 5

**6. LITIGATION**

If awarded the contract, Contractor shall notify the City within five (5) calendar days after being served with a summons, complaint, or other pleading in any matter which has been filed in any federal or state court or administrative agency. The Contractor shall deliver copies of such document(s) to the City's Procurement Services Manager. The term "litigation" includes an assignment for the benefit of creditors, and filings of bankruptcy, reorganization and/or foreclosure.

\_\_\_\_\_  
Initials for 6

**7. CONTRACTOR'S REGISTRATION INFORMATION**

Offeror's firm verifies and states that they are (check all that apply):

- \_\_\_\_\_ Small Business
- \_\_\_\_\_ Minority Owned Business/Small Disadvantaged Business
- \_\_\_\_\_ Woman Owned Business
- \_\_\_\_\_ Veteran Owned Business
- \_\_\_\_\_ Service-Disabled Veteran Owned Business
- \_\_\_\_\_ HUBZone Business

\_\_\_\_\_  
Initials for 7

**8. CONTRACTOR PERSONNEL**

- a) The Contractor shall appoint one of its key personnel as the "Authorized Representative" who shall have the power and authority to interface with the City and represent the Contractor in all administrative matters concerning this Contract, including without limitation such administrative matters as correction of problems modifications, and reduction of costs.
- b) The Authorized Representative shall be the person identified in the Contractor's Proposal, unless the Contractor provides written notice to the City naming another person to serve as its Authorized Representative. Communications received by the City Contracts Specialist from the Authorized Representative shall be deemed to have been received from the Contractor.
- c) The Contractor shall appoint a "Point of Contact" (POC) who shall be responsible for the day-to-day management and supervision of the contract performance. Before commencing the contract, the Contractor shall provide the City in writing with information regarding how to contact the POC including, for example, his or her name, telephone number, facsimile number, pager number, if any, address, and information relating to other means of communication.

The individual, \_\_\_\_\_ (Name)  
with position, \_\_\_\_\_ (Title)

Can be reached at

Work telephone number: \_\_\_\_\_

Home telephone number: \_\_\_\_\_

Cellular telephone number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

\_\_\_\_\_  
Initials for 8

**9. CONTRACTOR’S CERTIFICATION**

The undersigned hereby affirms that:

- a) He/She is a duly authorized agent of the Contractor;
- b) He/She has read and agrees to the City’s standard terms and conditions attached.
- c) The offer is presented in full compliance with the collusive prohibitions of the State of Colorado. The Contractor certifies that no employee of its firm has discussed, or compared the offer with any other offeror or City employee and has not colluded with any other offeror or City employee.
- d) The Contractor certifies that it has checked all of its figures, and understands that the City will not be responsible for any errors or omissions on the part of the Contractor in preparing its bid.
- e) By submitting an offer the Contractor certifies that it has complied and will comply with all requirements of local, state, and federal laws, and that no legal requirements have been or will be violated in making or accepting this solicitation.

I hereby certify that I am submitting the proposal based on my company's capabilities to provide quality products and/or services on time.

\_\_\_\_\_  
Initials for 9

**10. CONTRACTOR CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS:**

1. The offeror certifies to the best of its knowledge and belief, that (i) the Offeror and/or any of its Principals
  - a. Are ( ), Are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;
  - b. Have ( ), Have not ( ), within a three year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, local) contract or subcontract; violation of Federal or state antitrust statutes relation to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statement, tax evasion, or receiving stolen property; and
  - c. Are ( ), Are not ( ) presently indicated for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in any paragraphs above.
2. The Offeror shall provide immediate written notice to the City Contracts Specialist if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reasons of changed circumstances.

3. The certification in paragraph 1. above, is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the City, the City Contracts Specialist may terminate the contract resulting from this solicitation for default. Termination for default may result in additional charges being levied for the costs incurred by the City to initiate activities to replace The awarded Contractor.

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Initials for 10

#### **11. ACCEPTANCE OF CITY CONTRACTS SPECIALIST'S SOLE AUTHORITY FOR CHANGES**

The Contractor hereby agrees (if awarded a contract for this effort), that any changes to the scope of work, subsequent to the original contract signing, shall be generated in writing and an approval signature shall be obtained from the City Contracts Specialist prior to additional work performance.

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Initials for 11

APPENDIX 1

INDEX OF DRAWINGS

<b>SHEET NUMBER</b>	<b>SHEET TITLE</b>
01	COVER SHEET
02	LEGEND/SYMBOLS
03	GENERAL NOTES
04	SWPPP/QUANTITIES
05	POTHOLE INFORMATION SHEET (STORM DRAIN ALIGNMENT)
06-09	DRAFT SURFACE IMPROVEMENTS, TO BE COMPLETED BY OTHERS
10-17	STORM DRAIN TRUNK PLAN SHEETS
18-19	SEWER RECONSTRUCTION SHEETS
20	WATER COVER SHEET
21	OVERALL WATER PLAN
22	LEGEND/ABBREVIATIONS
23	WATER NOTES
24	WATER QUANTITY SHEETS
25-33	WATER MAIN PLAN SHEETS
34-36	MODIFIED CITY DETAILS