## CITY AND COUNTY OF DENVER DEPARTMENT OF PUBLIC WORKS

## CONTRACT NO. 201951264 PROJECT NAME: 56<sup>TH</sup> AVE AND PENA BLVD INTERCHANGE ADDENDUM NO. 3 TO CONTRACT DOCUMENTS

Bidders are hereby instructed that the drawings, specifications, and other contract documents are modified, corrected, supplemented, and/or superseded for the above-mentioned project as hereinafter described in the following attachments:

### I. **QUESTIONS AND ANSWERS**

Q1: Reviewing the revised schedule of values issued with Addendum 1 has brought up a couple of questions:

- o 609-07000 Curb & Gutter Trickle Channel
  - The pay quantity for this item is <u>236 CY</u>... the notes on Plan Sheet 74 would indicate that this pay quantity should be <u>236 LF</u>.
- A1A: LF is correct. The bid tabs have been updated.
- o Tabulation of Concrete Items (Plan Sheet 13)
  - The line indicated by 344+72 TO 350+36 RT carries the note: "Curb Type 2 is 12 Inches Tall". There is no quantity for Curb Type 2 tabulated on this line. Please clarify.
- A1B: This question has been answered in addendum 2. Disregard note.

Q2: The Original Bid Form had values included for the Force Account Items (Page BF-6.14)

- o 700-70023
- o 700-70589
- o 700-90064

The Addendum #1 Bid Form does not include values for these items. How do you want this handled? A2: The values will be input in this final bid form (addendum #3). Values will be the same as they were in the original bid tab.

Q3: Is there a spec'd soil amendment rate for the soil Conditioning? 3cy/1000sf? 4cy/1000sf? 5cy/1000sf?

A3: Soil conditioning for native grasses includes fertilizer only, not compost. The exact type of fertilizer should be based on the results of the topsoil tests. For the first application rate, Biological Nutrient Organic Based Fertilizer – 300 lbs/Acre Biological Nutrient shall not exceed 8-8-8 (N-P-K)

Q4: Is there a warranty period for the seed scope? If so, how long?

A4: Note that General Contract Conditions 1801 and 1802 concerning warranties and guarantees are deleted in their entirety on BDP-44. Warranties are not applicable since federal funds are used on this project. This does not absolve the contractor of the responsibility of closing out permits and establishing vegetation.

Q5: Is there a maintenance period for the seed scope? If so, how long?

A5: Per the revised Section 208 in the special provisions, the site needs to reach 70% of pre-disturbance vegetative cover to obtain substantial completion of erosion control and to closeout CASDP and CDPHE permits. Maintenance needs to happen until substantial and final completion of erosion control is achieved.

Contract No. 201951264 56<sup>th</sup> & Pena

ADD #3

Q6: The Bid Form issued with Addendum #2 continues to have the pay quantity for item 609-07000 -Curb and Gutter - Trickle Channel as <u>236 CY</u>. The notes on Plan Sheet 74 indicates that this quantity should be <u>236 LF</u>. Please clarify and revise if necessary.

#### A6: See A1. Bid tab has been updated to LF

Q7: The Original Bid Form had values included for the Force Account Items (Page BF-6.14)

0	700-70023

- o 700-70589
- o 700-90064

The Addendum #2 Bid Form does not include values for these items. How do you want this handled? A7: See A2

Q8: Can you please clarify who is responsible for Quality Control Testing (Soils, Concrete, Asphalt)?

## A8: The contractor is responsible for QC testing.

Q9: If the Quality Control Testing Program is to be by the Contractor, can you please provide a specification for tests required and testing frequency?

A9: The contractor can find frequencies of testing in the 2020 CDOT Field Materials Manual. The contractor should specifically reference the OA Frequency Guide Schedule for required tests (as applicable) and frequencies. When an awarded PS&E is sent to CDOT, CDOT will develop a Form 250 which will need to be filled out by the contract. This Form 250 takes values from the FMM. The Special Notice to Contractors has also been added to this contract which gives important certification and submittal requirements.

Q10: The Utility section of the Technical Specifications Page 150 indicates that Xcel will be lowering their highpressure gas line (HPG) in place. The specification indicates that this work can only be accomplished during the months of June July or August due to demand on the line. Can you please confirm if this work has been completed? A10: The permit for Xcel's HPG project is in with the City and has been approved. Work is beginning this September and will be completed in advance of this project.

Q11: The Specification further states that if the work is not completed in 2019 it will need to be completed in 2020 and the contractor will need to allow 30 days in its schedule for this work. If this added activity and duration impact the Critical Path of the contractor's CPM Schedule will the contract period of performance be extended on a commensurate basis?

A11: It is anticipated that this work will be completed. If the HPG line is not completed and this activity does impact the contractor's CPM schedule, the City will extend the contract period of performance.

Q12: Can the City provide a splicing diagram for the fiber optic cable?

A12: Splice enclosures are added as part of this addendum.

Q13: Can the City confirm that the luminaires on the street light poles are flat rated?

A13: Luminaires on the street light poles are flat rated and will not be metered.

Q14: Prairie Dog Management bid item

Since the area has been posted as plague area where the prairie dogs are please clarify how we are to handle them? A14: DPR was being proactive in this area and closed the area until after Labor Day weekend which has since reopened. This closure was a precautionary measure and no plague was found in this particular colony. The contractor should not expect to find plagued prairie dogs, however if plagued animals are found, the contractor should expect a change condition.

Contract No. 201951264 56<sup>th</sup> & Pena

ADD #3

Q15: No one will take plague animals for donation.

Does the State have a plan to follow beyond what is in the specification on this project since it is posted as a plague area? Is the plague a threat to workers in the area?

A15: There is no plan for any prairie dogs (plagued or not) within the City & County of Denver to be donated to any organizations. This project is calling for passive relocation which should not put workers in immediate contact with prairie dogs. If anything above and beyond passive relocation is necessary, such as trapping and euthanization, the contractor should expect a change condition. People should always take precautionary measures when working near prairie dog areas that have been infected. Always use insect repellents and cover up any exposed skin (arms and legs). Plague infection in people is uncommon and there have not been any reported cases. Common symptoms of plague include fever, swollen and tender lymph nodes, chills, and extreme exhaustion. Although plague can cause serious illness, it can be effectively treated with antibiotics, especially when diagnosed early. Tri-County Health Department will continue to monitor these plague-impacted areas and provide frequent updates. For additional information and to check individual agency websites for information about plague, visit <u>http://www.tchd.org/271/Animal-Related-Zoonotic-Diseases</u>for more information about plague.

The Project Specifications document a substantial number of third-party utility interferences, relocations and adjustments as detailed below. The Project Specifications also document the amount of time it will take to clear each of these interferences, relocations and adjustments.

UTILITY	ТҮРЕ	NUMBER EACH	NOTIFICATION	LEAD TIME	DESIGN	CONSTRUCTION	SPLICING
CENTURY LINK	U/G FACILITY	9 EA	3 WEEKS		2 WEEKS	30 DAYS	
CENTURY LINK	MANHOLE	1 E A	2 WEEKS		INCL	8 WEEKS	
CENTURY LINK	A/G PEDESTAL	1 EA		2 WEEKS		2 WEEKS	
CENTURY LINK	REPEATER	1 EA	12172	3 WEEKS	2 WEEKS	30 DAYS	
COMCAST	U/G FACILITY	9 EA	3 WEEKS	ĺ.	n	2 WEEKS/EA	
COMCAST	MANHOLE	3 EA		30 DAYS		2 WEEKS/EA	
COMCAST	REM PEDESTAL	7 EA		2 WEEKS		1 WEEK	
AT&T	U/G FACILITY - ELECTRICAL	NO QTY	30 DAYS		INCL	30 DAYS	30 DAYS
AT&T	U/G FACILITY - DRAINAGE	6 EA	2 WEEKS	2		2 WEEKS/EA	
AT&T	HANDHOLES	2 EA		5 WEEKS		1 DAY/EA	-
ZAYO	U/G FACILITY	7 EA	55.865.			2 WEEKS/EA	
ZAYO	HANDHOLES	3 EA				2 WEEKS/EA	

We have two questions regarding this work to be performed by third party utilities:

Q16: Since this project is not scheduled to begin until February 2020, has the City & County of Denver made any arrangements for this work to be completed prior to the start of construction?

A16: The City requested relocation of the Xcel high pressure gas line in advance of this project's start. The remainder of utility relocations/adjustments will be performed with the timelines in the table as shown above. The City will assist the contractor in ensuring that utilities are relocated within the timelines in the table above.

Q17: Should any of the nearly 50 documented third-party utility interferences, adjustments and relocations impact the Contractor's Critical Path Schedule, how does the City intend to address both the delay and the cost of that delay on this project.

Contract No. 201951264 56th & Pena

ADD #3

A17: In the General Contract Conditions 701.06, If the Contractor's Work is delayed by the acts or omissions of any other contractors, then a time extension may be granted pursuant to Title 11. No cost for that delay will be paid. It will benefit the contractor to begin utility coordination work as early as possible.

Q18: Please reference Bid Item 202-00032, Removal of Valve -4 EA. This item is not tabulated and is not mentioned in the PSP's. I can't find it on the drawings.

Please clarify location, size and scope of work involved with this item.

A18: "Denver Traffic Valve - Remove per Note 2" at each intersection on the existing FO line, but traffic valve boxes will be removed as part of the traffic signal equipment removal. This item is a mistake and has been removed from the bid tabulations.

## I. <u>REVISIONS AND/OR ADDED DOCUMENTS</u>

- i. BID FORM: Replace existing pages BF-6.1 through BF-7 with BF-6.1-ADD #3 through BF-7-ADD #3
- ii. **BID DOCUMENTS PACKAGE:** Replace existing pages SQ-1 through SQ-9 with SQ-1-ADD #3 through SQ-9-ADD #3
- iii. PENA & 56<sup>TH</sup> W & E MODEL
- iv. 56<sup>TH</sup> & TELLURIDE 2500' WEST OF TOWER MODEL

## II. <u>TECHNICAL SPECIFICATIONS</u>

## i. THE PROJECT TECHNICAL SPECIFICATIONS, shall hereby be modified to include the following:

The SPECIAL NOTICE TO CONTRACTORS from the 2020 CDOT Field Materials Manual shall be followed such that contractors can properly present their materials for inclusion into the construction project.

This ADDENDUM shall be attached to, become a part of, and be returned with the Bid Proposal.

esley B. Thomas City Engineer Date

The undersigned bidder acknowledges receipt of this Addendum. The Proposal submitted herewith is in accordance with the stipulations set forth herein.

Contractor

ADDENDUM NO. 3

DATE: \_\_\_\_\_

Contract No. 201951264 56<sup>th</sup> & Pena ADD #3

**REVISIONS AND/OR ADDED DOCUMENTS** 

Item No.	Description and Price	Estimated Quantity	Estimated Cost
201-00000	Clearing And Grubbing at the unit price of \$per Lump Sum	1 LS	\$
202-00019	Removal Of Inlet at the unit price of \$per Each	1 EA	\$
202-00021	<b>Removal Of Manhole</b> at the unit price of \$ per Each.	3 EA	\$
202-00035	<b>Removal Of Pipe</b> at the unit price of \$ per Linear Foot	335 LF	\$
202-00037	Removal Of End Section at the unit price of \$per Each	3 EA	\$
202-00090	Removal of Delineator at the unit price of \$per Each.	5 EA	\$
202-00190	Removal Of Concrete Median Cover Material at the unit price of \$ per Square Yard	165 SY	\$
202-00203	Removal Of Curb And Gutter at the unit price of \$per Linear Foot	515 LF	\$
202-00220	Removal Of Asphalt Mat at the unit price of \$per Square Yard	16,829 SY	\$
202-00250	Removal Of Pavement Marking at the unit price of \$per Square Foot	2,133 SF	\$
202-00750	Removal Of Luminaire at the unit price of \$per Each	11 EA	\$
202-00810	<b>Removal Of Ground Sign</b> at the unit price of \$ per Each	11 EA	\$

Contract No. 201951264 56<sup>th</sup> & Pena

BF-6.1-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
202-00821	<b>Removal Of Sign Panel</b> at the unit price of \$per Each	5 EA	\$
202-00828	<b>Removal Of Traffic Signal</b> <b>Equipment</b> at the unit price of \$per Lump Sum	2 LS	\$
02-01000	Removal Of Fence at the unit price of \$per Linear Foot	574 LF	\$
02-01130	<b>Removal Of Guardrail Type 3</b> at the unit price of \$per Linear Foot	340 LF	\$
02-01170	<b>Removal Of Guardrail Type 7</b> at the unit price of \$per Linear Foot	74 LF	\$
202-01300	<b>Removal Of End Anchorage</b> at the unit price of \$per Each	4 EA	\$
02-04005	Clean Valve Box at the unit price of \$per Each	9 EA	\$
03-00010	Unclassified Excavation (Complete In Place) at the unit price of \$ per Cubic Yard	14,062 CY	\$
03-00050	Unsuitable Material at the unit price of \$per Cubic Yard	8,327 CY	\$
03-01597	<b>Potholing</b> at the unit price of \$ per Hour	60 HR	\$
206-00510	Filter Material (Class A) at the unit price of \$per Cubic Yard	84 CY	\$
207-00205	<b>Topsoil</b> at the unit price of \$per Cubic Yard	783 CY	\$

Contract No. 201951264 56<sup>th</sup> & Pena

BF-6.2-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
07-00210	Stockpile Topsoil		
07-00210	at the unit price of	2,046 CY	\$
	\$per Cubic Yard	2,010 01	•
08-00002	Erosion Log Type 1 (12 Inch)		
	at the unit price of	1,461 LF	\$
	<pre>\$per Linear Foot</pre>		
08-00020	Silt Fence		
08-00020	at the unit price of	146 LF	\$
	\$ per Linear Foot	140 LF	Ф
08-00035	Aggregate Bag (Rock Sock)		
	at the unit price of	920 LF	\$
	\$per Linear Foot		
08-00036	Aggregate Bag (Block and Deck		
08-00030	Aggregate Bag (Block and Rock Sock)	315 LF	\$
	at the unit price of	515 LF	\$
	\$per Linear Foot		
00 00027			
08-00037	Aggregate Bag (Rock Sock Area Inlet Protection)	120 LF	\$
	at the unit price of	120 LF	Φ
	\$per Linear Foot		
08-00041	<b>Rock Check Dam</b>		
	at the unit price of	2 EA	\$
	\$per Each		
08-00045X	<b>Concrete Washout Structure</b>		
	at the unit price of	1 LS	\$
	\$per Lump Sum		
~~ ~~~=~			
08-00070	Vehicle Tracking Pad	1 64	¢
	at the unit price of \$ per Each	1 EA	\$
	•per Each		
08-00521	Temporary Stream Crossing		
	at the unit price of	1 EA	\$
	\$per Each		
10-00810	Posst Cround Star		
10-00010	Reset Ground Sign at the unit price of	5 EA	\$
	sper Each	JEA	Ψ

BF-6.3-ADD#3

.

Item No.	Description and Price	Estimated Quantity	Estimated Cost
210-00827	Reset Pull Box at the unit price of \$per Each	l EA	\$
210-01720	Reset Air Vent at the unit price of \$ per Each	4 EA	\$
210-017XX	<b>Reset Cathodic Test Pole</b> at the unit price of \$per Each.	4 EA	\$
210-04010	Adjust Manhole at the unit price of \$per Each	10 EA	\$
210-04015	Modify Manhole at the unit price of \$ per Each	6 EA	\$
210-04050	Adjust Valve Box at the unit price of \$per Each	9 EA	\$
211-03005	Construction Dewatering at the unit price of \$per Lump Sum	1 LS	\$
212-00006	Seeding (Native) at the unit price of \$per Acre	4.79 ACRE	\$
212-00009	Seeding (Temporary) at the unit price of \$per Acre	0.40 ACRE	\$
212-00022	Seeding (Riparian) at the unit price of \$per Acre	0.32 ACRE	\$
212-00032	Soil Conditioning at the unit price of \$per Acre	5.11 ACRE	\$
213-00003	Mulching (Weed Free) at the unit price of \$per Acre	5.11 ACRE	\$

BF-6.4-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
213-00061	Mulch Tackifier at the unit price of \$per Pound	1,020 LB	\$
216-00111	Soil Retention Blanket (Excelsior)(Photodegradable Class 1) at the unit price of \$per Square Yard	1,655 SY	\$
216-00301	Turf Reinforcement Mat (Class 1)         at the unit price of         \$	4,371 sy	\$
240-00000	Wildlife Biologist at the unit price of \$per Hour	40 HR	\$
240-00010	Removal Of Nests at the unit price of \$per Hour	40 HR	\$
240-00020	Netting at the unit price of \$per Square Yard	2,834 SY	\$
40-00100	Prairie Dog Management at the unit price of \$per Lump Sum	1 LS	\$
50-00010	Environmental Health and Safety Management at the unit price of \$per Lump Sum	1 LS	\$
804-06007	Aggregate Base Course (Class 6) at the unit price of \$per Cubic Yard	4,325 CY	\$
03-33841	Hot Mix Asphalt (Grading S) (100) (PG 64-22) at the unit price of \$ per Ton	9,063 TON	\$
403-34871	Hot Mix Asphalt (Grading SX) (100) (PG 76-28) at the unit price of \$ per Ton	2,592 TON	\$

.

BF-6.5-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
11-10255	Emulsified Asphalt (Slow-Setting) at the unit price of \$per Gallon	2,336 GAL	\$
12-00800	Concrete Pavement (8 Inch) at the unit price of \$ per Square Yard	66 SY	\$
03-00036	<b>Drilled Caisson (36 Inch)</b> at the unit price of \$ per Linear Foot	70 LF	\$
03-00048	<b>Drilled Caisson (48 Inch)</b> at the unit price of \$ per Linear Foot	85 LF	\$
06-00212	<b>Riprap (12 Inch)</b> at the unit price of \$per Cubic Yard	142 CY	\$
06-00218	Riprap (18 Inch) at the unit price of \$per Cubic Yard	17 CY	\$
07-00100	Concrete Slope and Ditch Paving (Reinforced) at the unit price of \$per Cubic Yard	89 CY	\$
14-00042	Pedestrian Railing (42 Inch) at the unit price of \$per Linear Foot	539 LF	\$
01-01000	Concrete Class B at the unit price of \$ per Cubic Yard	9.2 CY	\$
03-01155	<b>15 Inch Reinforced Concrete Pipe</b> (Complete In Place) at the unit price of \$per Linear Foot	33 LF	\$
03-01185	<b>18 Inch Reinforced Concrete Pipe</b> (Complete In Place) at the unit price of \$ per Linear Foot	330 LF	\$

BF-6.6-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
603-01245	<b>24 Inch Reinforced Concrete Pipe</b> (Complete In Place) at the unit price of \$ per Linear Foot	280 LF	\$
603-01305	<b>30 Inch Reinforced Concrete Pipe</b> (Complete In Place) at the unit price of \$per Linear Foot	27 LF	\$
503-01365	<b>36 Inch Reinforced Concrete Pipe</b> (Complete In Place) at the unit price of \$per Linear Foot	195 LF	\$
603-01425	<b>42 Inch Reinforced Concrete Pipe</b> (Complete In Place) at the unit price of \$per Linear Foot	602 LF	\$
503-01485	48 Inch Reinforced Concrete Pipe (Complete In Place) at the unit price of \$per Linear Foot	201 LF	\$
503-02245	<b>30x19 Inch Reinforced Concrete</b> <b>Pipe Elliptical (Complete In</b> <b>Place)</b> at the unit price of \$ per Linear Foot	374 LF	\$
503-02300	<b>38x24 Inch Reinfoced Concrete</b> <b>Pipe Elliptical</b> at the unit price of \$per Linear Foot	107 LF	\$
03-05015	<b>15 Inch Reinforced Concrete End</b> Section at the unit price of \$per Each	2 EA	\$
03-05018	<b>18 Inch Reinforced Concrete End</b> Section at the unit price of \$per Each	4 EA	\$
503-05024	24 Inch Reinforced Concrete End Section at the unit price of \$per Each	2 EA	\$

•

BF-6.7-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
603-05036	<b>36 Inch Reinforced Concrete End</b> <b>Section</b> at the unit price of	1 EA	\$
03-05048	<pre>\$per Each 48 Inch Reinforced Concrete End Section at the unit price of</pre>	1 EA	\$
04-19005	<pre>\$per Each Inlet Special (5 Foot) (6'W) at the unit price of \$per Each</pre>	8 EA	\$
04-19006	Inlet Special (5-Foot) (12'W) at the unit price of \$per Each	2 EA	\$
04-30010	Manhole Slab Base (10 Foot) at the unit price of \$per Each	5 EA	\$
04-39005	Manhole Special (5 Foot) at the unit price of \$per Each	3 EA	\$
04-3900X	Manhole Special (9 Ft Dia)(10 Foot) at the unit price of \$per Each	1 EA	\$
06-00710	Guardrail Type 7 (Style CA) at the unit price of \$per Linear Foot	375 LF	\$
06-00730	Guardrail Type 7 (Style CD) at the unit price of \$per Linear Foot	86 LF	\$
06-01460	Median Terminal at the unit price of \$per Each	4 EA	\$
07-11525	Fence (Plastic) at the unit price of \$per Linear Foot	143 LF	\$

Contract No. 201951264 56<sup>th</sup> & Pena BF-6.8-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
507-53160	Fence Chain Link (60 Inch) at the unit price of \$per Linear Foot	810 LF	\$
508-00006	Concrete Sidewalk (6 Inch) at the unit price of \$ per Square Yard	2,300 SY	\$
508-00010	Concrete Curb Ramp at the unit price of \$per Square Yard	266 SY	\$
508-00015	<b>Detectable Warnings</b> at the unit price of \$per Square Foot	20 SF	\$
509-07000	<b>Curb and Gutter-Trickle Channel</b> at the unit price of \$per Linear Foot	236 LF	\$
509-07001	<b>Pond Outlet Structure</b> at the unit price of \$per Each	l EA	\$
09-07002	Forebay at the unit price of \$per Each	2 EA	\$
09-20010	Curb Type 2 (Section B) at the unit price of \$per Linear Foot	532 LF	\$
09-21010	Curb And Gutter Type 2 (Section I-B) at the unit price of \$per Linear Foot	2,849 LF	\$
09-21020	Curb And Gutter Type 2 (Section II-B) at the unit price of \$ per Linear Foot	3,735 LF	\$
09-21021	Curb And Gutter Type 2 (Section II-M) at the unit price of \$ per Linear Foot	32 LF	\$

BF-6.9-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
609-24008	Gutter Type 2 (8 Foot) at the unit price of \$per Linear Foot	236 LF	\$
510-00024	Median Cover Material (4 inch Patterned Concrete) at the unit price of \$ per Square Foot	1,039 SF	\$
13-00206	2 Inch Electrical Conduit (Bored) at the unit price of \$per Linear Foot	4,586 LF	\$
13-00306	<b>3 Inch Electrical Conduit (Bored)</b> at the unit price of \$per Linear Foot	2,093 LF	\$
513-01100	1 Inch Electrical Conduit (Plastic) at the unit price of \$ per Linear Foot	480 LF	\$
13-01300	<b>3 Inch Electrical Conduit (Plastic)</b> at the unit price of \$ per Linear Foot	2,934 LF	\$
513-07001	Type One Pull Box at the unit price of \$ per Each	23 EA	\$
513-07002	Type Two Pull Box at the unit price of \$per Each	10 EA	\$
13-0700C	<b>Pull Box (Type C)</b> at the unit price of \$per Each	4 EA	\$
513-10000	Wiring at the unit price of \$per Lump Sum	1 LS	\$
513-13016	Luminaire (LED) (16,000 LUMENS) at the unit price of \$ per Each	27 EA	\$

BF-6.10-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
13-130XX	Luminaire (LED) (5,300 LUMENS)	10 EA	\$
	at the unit price of \$per Each		
13-32300	Light Standard Steel (30 Foot) at the unit price of \$ per Each	27 EA	\$
13-40000	<b>Concrete Foundation Pad</b> at the unit price of \$per Each	2 EA	\$
13-40010	Light Standard Foundation at the unit price of \$per Each	27 EA	\$
13-50150X	Electric Meter Pedestal at the unit price of \$ per Each	2 EA	\$
14-00011	Sign Panel (Class I) at the unit price of \$per Square Foot	242 SF	\$
14-00012	Sign Panel (Class II) at the unit price of \$per Square Foot	219.5 SF	\$
14-00035	Sign Panel (Special) at the unit price of \$ per Square Foot	66 SF	\$
14-00216	Steel Sign Post (2x2 Inch Tubing) at the unit price of \$ per Linear Foot	377.5 LF	\$
14-70150	Pedestrian Signal Face (16) (Countdown) at the unit price of \$ per Each	16 EA	\$
14-70336	Traffic Signal Face (12-12-12) at the unit price of \$ per Each	24 EA	\$
14-72860	Pedestrian Push Button         at the unit price of         \$	16 EA	\$

Contract No. 201951264 56<sup>th</sup> & Pena BF-6.11-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
		8. A	
4-72866	Fire Preemption Unit And Timer		
2000	at the unit price of	6 EA	\$
	\$per Each	U LIN	•
4-7288X	Intersection Detection System (3		
	Camera)	2 EA	\$
	at the unit price of		
	\$per Each		
4-75848	Traffic Signal Controller and		
	Cabinet	2 EA	\$
	at the unit price of		
	\$per Each		
4-81000	Traffic Signal-Light Pole Steel		
	at the unit price of	4 EA	\$
	\$per Each		
4-81155	Traffic Signal-Light Pole Steel (1-		
	55 Foot Mast Arm)	1 EA	\$
	at the unit price of		
	\$per Each		
4-81160	Traffic Signal Light Pole Steel (1-		
	60 Foot Mast Arm)	2 EA	\$
	at the unit price of		
	\$per Each		
4-81170	Traffic Signal Light Pole Steel (1-		
	70 Foot Mast Arm)	3 EA	\$
	at the unit price of		
	\$per Each		
4-84010	Traffic Signal Pedestal Pole Steel		
	(10 Foot)	2 EA	\$
	at the unit price of		
	\$per Each		
4-86105	Telemetry (Field)		
	at the unit price of	2 EA	\$
	\$per Each		
4-87333	<b>Closed Circuit Television Camera</b>		
	(Traffic Surveillance)	2 EA	\$
	at the unit price of		3 10
	\$per Each		

BF-6.12-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
514-99001	Fiber Optic Cable Denver Hybrid 12 Fiber (6SM) (6MM) at the unit price of	2,934 LF	\$
	\$per Linear Foot		
14-99002	Fiber Optic Cable Denver Hybrid 96 Fiber (84SM) (12MM) at the unit price of \$ per Linear Foot	2,706 LF	\$
18-86800	Uninterrupted Power Supply at the unit price of \$per Each	2 EA	\$
21-00450	<b>Detour Pavement</b> at the unit price of \$per Square Yard	712 SY	\$
23-00602	2 Inch Plastic Pipe (Irrigation/Sleeve) at the unit price of	320 LF	\$
23-00604	<pre>\$per Linear Foot 4 Inch Plastic Pipe (Irrigation/Sleeve) at the unit price of \$per Linear Foot</pre>	320 LF	\$
25-00000	Construction Surveying at the unit price of \$per Lump Sum	l LS	\$
26-00000	Mobilization at the unit price of \$per Lump Sum	1 LS	\$
27-00005	Epoxy Pavement Marking at the unit price of \$per Gallon	73 GAL	\$
527-00013	<b>Pavement Marking Paint (High Build)</b> at the unit price of \$ per Gallon	90 GAL	\$
527-02010	Preformed Plastic Pavement Marking (Type II) (Inlaid) at the unit price of	273 SF	\$

Contract No. 201951264 56<sup>th</sup> & Pena

÷

BF-6.13-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
627-30405	Preformed Thermoplastic Pavement Marking (Word- Symbol) at the unit price of \$ per Square Foot	58 SF	\$
527-30410	Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line) at the unit price of \$ per Square Foot	1,570 SF	\$
530-00000	Flagging at the unit price of \$ per Hour	40 HR	\$
530-00003	Uniformed Traffic Control at the unit price of \$per Hour	20 HR	\$
30-00007	Traffic Control Inspection at the unit price of \$per Day	180 DAY	\$
30-00012	Traffic Control Management         at the unit price of         \$per Day	72 DAY	\$
30-80335	<b>Barricade (Type 3 M-A)</b> (Temporary) at the unit price of \$ per Each	<b>4</b> EA	\$
30-80341	Construction Traffic Sign (Panel Size A) at the unit price of \$ per Each	24 EA	\$
30-80342	Construction Traffic Sign (Panel Size B) at the unit price of \$ per Each	4 EA	\$
530-80355	Portable Message Sign Panel at the unit price of \$ per Each	2 EA	\$

BF-6.14-ADD#3

Item No.	Description and Price	Estimated Quantity	Estimated Cost
630-80356	Advance Warning Flashing Or Sequencing Arrow Panel (A Type) at the unit price of \$ per Each	2 EA	\$
630-80360	<b>Drum Channelizing Device</b> at the unit price of <b>\$</b> per Each	145 EA	\$
700-70023	<b>F/A On the Job Trainee</b> at the unit price of <u>\$10.00</u> per Hour	640 HR	\$ <u>6,400.00</u>
700-70589	F/A Environmental Health & Safety Management at the unit price of <u>\$10,000.00</u> per Force Account.	l FA	\$ <u>10,000.00</u>
700-90064	F/A Furnish And Install Electrical Service at the unit price of <u>\$5,000.00</u> per Force Account.	1 FA	\$ <u>5,000.00</u>

Three [3] Force Accounts, (One Hundred and Sixty [160]) total bid items.)	§
S Textura ® Fee from table on Page BF-3 (based on Bid Items Total Amount)	S
S Bid Items Total Amount plus Textura® Fee equals Total Bid Amount	S

Total Bid Amount		
	Dollars (\$	)

If the Executive Director mails a written Notice of Apparent Low Bidder addressed to the bidder's business address stated on this Bid Form, the undersigned bidder shall, in accordance with the Contract Documents, within five (5) days after the date of the Notice: (i) execute the attached form of Contract in conformity with this bid; (ii) furnish the required proofs of insurance; and (iii) furnish the required bond in the sum of the full amount of this bid, executed by a surety company acceptable to the Executive Director.

The \_\_\_\_\_\_, a corporation of the State of \_\_\_\_\_, is hereby offered as Surety on said bond. If such surety is not approved by the Executive Director, another and satisfactory surety company shall be furnished.

The following persons, firms or corporations are interested with the undersigned bidder in this bid:

Name:	Name:	
Address:	Address:	

If there are no such persons, firms, or corporations, please so state in the following space:

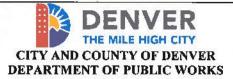
# CITY AND COUNTY OF DENVER DEPARTMENT OF PUBLIC WORKS

# STATEMENT OF QUANTITIES

ltem No.	Description	Estimated	Quantity
201-00000	Clearing And Grubbing	L	LS
202-00019	Removal Of Inlet	1	EA
202-00021	Removal Of Manhole	3	EA
202-00035	Removal Of Pipe	335	LF
202-00037	Removal Of End Section	3	EA
202-00090	Removal of Delineator	5	EA
202-00190	Removal Of Concrete Median Cover Material	165	SY
202-00203	Removal Of Curb And Gutter	515	LF
202-00220	Removal Of Asphalt Mat	16,829	SY
202-00250	Removal Of Pavement Marking	2,133	SF
202-00750	Removal Of Luminaire	11	EA
202-00810	Removal Of Ground Sign	11	EA
202-00821	Removal Of Sign Panel	5	EA
202-00828	Removal Of Traffic Signal Equipment	2	LS
202-01000	Removal Of Fence	574	LF
202-01130	Removal Of Guardrail Type 3	340	LF
202-01170	Removal Of Guardrail Type 7	74	LF
202-01300	Removal Of End Anchorage	4	EA
202-04005	Clean Valve Box	9	EA

Contract No. 201951264 56<sup>th</sup> & Pena

SQ-1-ADD#3



ltem No.	Description	Estimated	Quantity
203-00010	Unclassified Excavation (Complete In Place)	14,062	CY
203-00050	Unsuitable Material	8,327	СҮ
203-01597	Potholing	60	HR
206-00510	Filter Material (Class A)	84	СҮ
207-00205	Topsoil	783	СҮ
207-00210	Stockpile Topsoil	2,046	СҮ
208-00002	Erosion Log Type 1 (12 Inch)	1,461	LF
208-00020	Silt Fence	146	LF
208-00035	Aggregate Bag (Rock Sock)	920	LF
208-00036	Aggregate Bag (Block and Rock Sock)	315	LF
208-00037	Aggregate Bag (Rock Sock Area Inlet Protection)	120	LF
208-00041	Rock Check Dam	2	EA
208-00045X	Concrete Washout Structure	1	LS
208-00070	Vehicle Tracking Pad	1	EA
208-00521	Temporary Stream Crossing	1	EA
210-00810	Reset Ground Sign	5	EA
210-00827	Reset Pull Box	1	EA
210-01720	Reset Air Vent	4	EA
210-017XX	Reset Cathodic Test Pole	4	EA

Contract No. 201951264 56th & Pena

SQ-2-ADD#3



ltem No.	Description	Estimated	Quantity
210-04010	Adjust Manhole	10	EA
210-04015	Modify Manhole	6	EA
210-04050	Adjust Valve Box	9	EA
211-03005	Construction Dewatering	1	LS
212-00006	Seeding (Native)	4.79	ACRE
212-00009	Seeding (Temporary)	0.40	ACRE
212-00022	Seeding (Riparian)	0.32	ACRE
212-00032	Soil Conditioning	5.11	ACRE
213-00003	Mulching (Weed Free)	5.11	ACRE
213-00061	Mulch Tackifier	1,020	LB
216-00111	Soil Retention Blanket (Excelsior)(Photodegradable Class 1)	1,655	SY
216-00301	Turf Reinforcement Mat (Class 1)	4,371	SY
240-00000	Wildlife Biologist	40	HR
240-00010	Removal Of Nests	40	HR
240-00020	Netting	2,834	SY
240-00100	Prairie Dog Management	1	LS
250-00010	Environmental Health and Safety Management	1	LS
304-06007	Aggregate Base Course (Class 6)	4,325	CY
403-33841	Hot Mix Asphalt (Grading S) (100) (PG 64-22)	9,063	TON

Contract No. 201951264 56th & Pena

•

SQ-3-ADD#3



ltem No.	Description	Estimated	Quantity
403-34871	Hot Mix Asphalt (Grading SX) (100) (PG 76-28)	2,592	TON
411-10255	Emulsified Asphalt (Slow-Setting)	2,336	GAL
412-00800	Concrete Pavement (8 Inch)	66	SY
503-00036	Drilled Caisson (36 Inch)	70	LF
503-00048	Drilled Caisson (48 Inch)	85	LF
506-00212	Riprap (12 Inch)	142	СҮ
506-00218	Riprap (18 Inch)	17	СҮ
507-00100	Concrete Slope and Ditch Paving (Reinforced)	89	СҮ
514-00042	Pedestrian Railing (42 Inch)	539	LF
601-01000	Concrete Class B	9.2	СҮ
603-01155	15 Inch Reinforced Concrete Pipe (Complete In Place)	33	LF
603-01185	18 Inch Reinforced Concrete Pipe (Complete In Place)	330	LF
603-01245	24 Inch Reinforced Concrete Pipe (Complete In Place)	280	LF
603-01305	30 Inch Reinforced Concrete Pipe (Complete In Place)	27	LF
603-01365	36 Inch Reinforced Concrete Pipe (Complete In Place)	195	LF
603-01425	42 Inch Reinforced Concrete Pipe (Complete In Place)	602	LF
603-01485	48 Inch Reinforced Concrete Pipe (Complete In Place)	201	LF
603-02245	30x19 Inch Reinforced Concrete Pipe Elliptical (Complete In Place)	374	LF

Contract No. 201951264 56th & Pena

SQ-4-ADD#3



Item No.	Description	Estimated	Quantity
603-02300	38x24 Inch Reinfoced Concrete Pipe Elliptical	107	LF
603-05015	15 Inch Reinforced Concrete End Section	2	EA
603-05018	18 Inch Reinforced Concrete End Section	4	EA
603-05024	24 Inch Reinforced Concrete End Section	2	EA
603-05036	36 Inch Reinforced Concrete End Section	1	EA
603-05048	48 Inch Reinforced Concrete End Section	1	EA
604-19005	Inlet Special (5 Foot) (6'W)	8	EA
604-19006	Inlet Special (5-Foot) (12'W)	2	EA
604-30010	Manhole Slab Base (10 Foot)	5	EA
604-39005	Manhole Special (5 Foot)	3	EA
604-3900X	Manhole Special (9 Ft Dia)(10 Foot)	1	EA
606-00710	Guardrail Type 7 (Style CA)	375	LF
606-00730	Guardrail Type 7 (Style CD)	86	LF
606-01460	Median Terminal	4	EA
607-11525	Fence (Plastic)	143	LF
607-53160	Fence Chain Link (60 Inch)	810	LF
608-00006	Concrete Sidewalk (6 Inch)	2,300	SY
608-00010	Concrete Curb Ramp	266	SY
608-00015	Detectable Warnings	20	SF

Contract No. 201951264 56<sup>th</sup> & Pena SQ-5-ADD#3



Item No.	Description	Estimated	Quantity
609-07000	Curb and Gutter-Trickle Channel	236	LF
609-07001	Pond Outlet Structure	1	EA
609-07002	Forebay	2	EA
609-20010	Curb Type 2 (Section B)	532	LF
609-21010	Curb And Gutter Type 2 (Section I-B)	2,849	LF
609-21020	Curb And Gutter Type 2 (Section II-B)	3,735	LF
609-21021	Curb And Gutter Type 2 (Section II-M)	32	LF
609-24008	Gutter Type 2 (8 Foot)	236	LF
610-00024	Median Cover Material (4 inch Patterned Concrete)	1,039	SF
613-00206	2 Inch Electrical Conduit (Bored)	4,586	LF
613-00306	3 Inch Electrical Conduit (Bored)	2,093	LF
613-01100	1 Inch Electrical Conduit (Plastic)	480	LF
613-01300	3 Inch Electrical Conduit (Plastic)	2,934	LF
613-07001	Type One Pull Box	23	EA
613-07002	Type Two Pull Box	10	EA
613-0700C	Pull Box (Type C)	4	EA
613-10000	Wiring	1	LS
613-13016	Luminaire (LED) (16,000 LUMENS)	27	EA
613-130XX	Luminaire (LED) (5,300 LUMENS)	10	EA

Contract No. 201951264 56<sup>th</sup> & Pena SQ-6-ADD#3

September 4, 2019

,



item No.	Description	Estimated	Quantity
613-32300	Light Standard Steel (30 Foot)	27	EA
613-40000	Concrete Foundation Pad	2	EA
613-40010	Light Standard Foundation	27	EA
613-50150X	Electric Meter Pedestal	2	EA
614-00011	Sign Panel (Class I)	242	SF
614-00012	Sign Panel (Class II)	219.5	SF
614-00035	Sign Panel (Special)	66	SF
614-00216	Steel Sign Post (2x2 Inch Tubing)	377.5	LF
614-70150	Pedestrian Signal Face (16) (Countdown)	16	EA
614-70336	Traffic Signal Face (12-12-12)	24	EA
614-72860	Pedestrian Push Button	16	EA
614-72866	Fire Preemption Unit And Timer	6	EA
614-7288X	Intersection Detection System (3 Camera)	2	EA
614-75848	Traffic Signal Controller and Cabinet	2	EA
614-81000	Traffic Signal-Light Pole Steel	4	EA
614-81155	Traffic Signal-Light Pole Steel (1-55 Foot Mast Arm)	1	EA
614-81160	Traffic Signal Light Pole Steel (1-60 Foot Mast Arm)	2	EA
614-81170	Traffic Signal Light Pole Steel (1-70 Foot Mast Arm)	3	EA
614-84010	Traffic Signal Pedestal Pole Steel (10 Foot)	2	EA

Contract No. 201951264 56th & Pena SQ-7-ADD#3



item No.	Description	Estimated	Quantity
614-86105	Telemetry (Field)	2	EA
614-87333	Closed Circuit Television Camera (Traffic Surveillance)	2	EA
614-99001	Fiber Optic Cable Denver Hybrid 12 Fiber (6SM) (6MM)	2,934	LF
614-99002	Fiber Optic Cable Denver Hybrid 96 Fiber (84SM) (12MM)	2,706	LF
618-86800	Uninterrupted Power Supply	2	EA
621-00450	Detour Pavement	712	SY
623-00602	2 Inch Plastic Pipe (Irrigation/Sleeve)	320	LF
623-00604	4 Inch Plastic Pipe (Irrigation/Sleeve)	320	LF
625-00000	Construction Surveying	1	LS
626-00000	Mobilization	1	LS
627-00005	Epoxy Pavement Marking	73	GAL
627-00013	Pavement Marking Paint (High Build)	90	GAL
627-02010	Preformed Plastic Pavement Marking (Type II) (Inlaid)	273	SF
627-30405	Preformed Thermoplastic Pavement Marking (Word- Symbol)	58	SF
627-30410	Preformed Thermoplastic Pavement Marking (Xwalk- Stop Line)	1,570	SF
630-00000	Flagging	40	HR
630-00003	Uniformed Traffic Control	20	HR

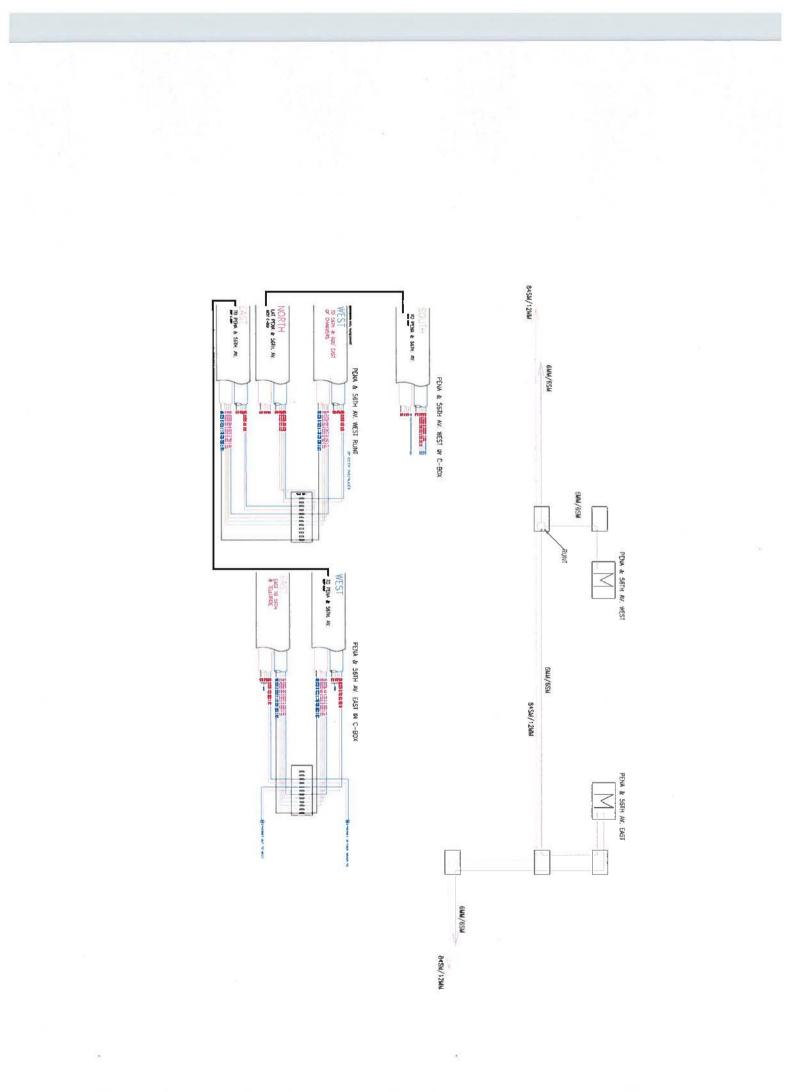
Contract No. 201951264 56<sup>th</sup> & Pena SQ-8-ADD#3

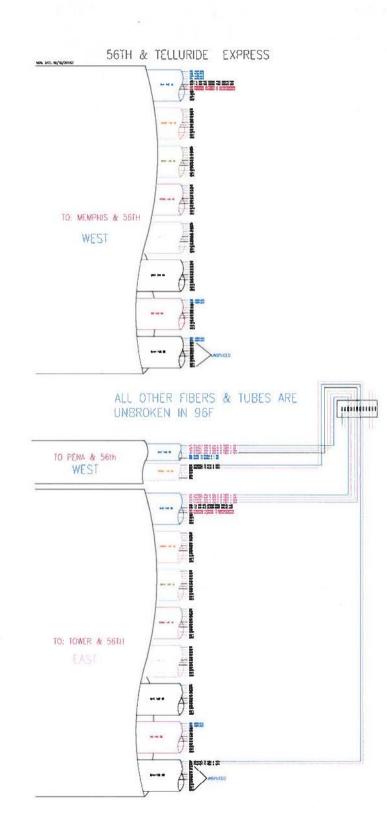


Item No.	Description	Estimated	Quantity
630-00007	Traffic Control Inspection	180	DAY
630-00012	Traffic Control Management	72	DAY
630-80335	Barricade (Type 3 M-A) (Temporary)	4	EA
630-80341	Construction Traffic Sign (Panel Size A)	24	EA
630-80342	Construction Traffic Sign (Panel Size B)	4	EA
630-80355	Portable Message Sign Panel	2	EA
630-80356	Advance Warning Flashing Or Sequencing Arrow Panel (A Type)	2	EA
630-80360	Drum Channelizing Device	145	EA
700-70023	F/A On the Job Trainee	640	HR
700-70589	F/A Environmental Health & Safety Management	1	FA
700-90064	F/A Furnish And Install Electrical Service	1	FA

Contract No. 201951264 56<sup>th</sup> & Pena

.





SOME OF THESE MAY BE DAMAGED DUE TO HIT BY CONTRACTORS WORKING ON THE BRIDGE EXPANTION - THE 6X6 TO THE EAST WAS CUT AND ABANDONDED

## Special Notice to Contractors - 19

#### 1. SCOPE

- 1.1 It is the intent of this chapter to provide guidelines to the Contractor or Sub-Contractor, so that they can properly present their materials for inclusion in the construction project.
- 1.2 The Contractor shall follow the procedures listed below to ensure the proper inspection, sampling, testing, and certification of materials and products incorporated into all construction projects.
- 1.3 "Prequalification of Bidders" (Standard Specifications, Subsection 102.01) is synonymous with any reference to the CDOT "Pre-Qual List". A Prime Contractor requiring additional information regarding bidding can go to <u>https://www.codot.gov/business/bidding</u>.
- 1.4 The Qualified Manufacturers List (QML) is used for suppliers of Steel Reinforcing Bars & Steel Dowel Bars, Epoxy Coaters for Reinforcing Steel, and Precast Concrete Structures. These products are required to be selected off the QML. All relevant details for the proper submittal of specified Standard Manufactured Materials and Fabricated Structural Materials are found in CDOT's Field Materials Manual under CP 11, Quality Management Plans for the Qualified Manufacturers List or the Approved Products List.

#### 2. PROVIDE NOTIFICATION OF MATERIALS SOURCES AND SUPPLIERS

- 2.1 In accordance with Subsection 106.01 of the Standard Specifications: The Contractor shall submit a formal list of material sources and suppliers to the Engineer <u>at least two weeks prior to delivery</u>; however, it is preferable that the list be presented at the Pre-Construction Meeting. The Department will sample and test materials proposed by the Contractor to be utilized for Items 203, 206, and 304. If the Department test results indicate the material is not in conformance with the project specifications, the Contractor is directed to Subsection 106.02 regarding Contractor Source materials and additional testing requirements.
- 2.2 The list shall include: item to be supplied, quantity, a reference to the level of acceptance required by CDOT (per Section 7, Designated Products and Assemblies), company's name and address manufacturing the material or product, and contact person (if the material is to be pre-inspected or if a problem exists with the material delivered). The submitted list shall indicate, immediately after the item being referenced, the applicable acceptance level required:
  - (A) Pre-Inspection (PI)
  - (B) Certified Test Report (CTR)
  - (C) Certificate of Compliance (COC)
  - (D) Pre-Approved (per APL &/or QML)
- 2.3 All required product or material documentation shall be provided at the point and time of delivery to the construction project. Failure to provide the required documents, such as CTRs and COCs, may result in rejection of the materials. Failure to utilize the QML or APL may result in rejection of the materials.

#### 2020 CDOT FMM

### 3. INNOVATIVE CONTRACTING (DESIGN / BUILD PROJECTS, CM/GC PROJECTS, ETC.) - MATERIALS DOCUMENTATION RECORD, CDOT FORM #250

- 3.1 Two weeks before construction of any element of work the Contractor shall furnish the Engineer a schedule of items, approximate quantities to be incorporated into the project, and a reference to the method of acceptance required by CDOT (per Section 7, Designated Products and Assemblies). This information is to include the item of work with its placement location and dates. The Contractor shall immediately notify the Engineer, in writing, if the items of work or quantities are revised.
- 3.2 At the completion of the project, the Contractor shall furnish the Engineer with a completed CDOT Form 250 either originally created prior to the start of the project or at the end of the project by the Materials Documentation Unit - Materials Documentation Record listing items utilized to construct the project and the approximate quantity of each item.

#### 4. BUY AMERICA REQUIREMENTS

- 4.1 In accordance with Subsection 106.11 of the Standard Specifications as referenced in 23 CFR Part 635.410:
- 4.1.A Regulations require the use of domestic steel and iron in Federally funded construction projects. Buy America applies to construction components which are "predominately steel products," defined by CDOT as products which are manufactured with at least 80% steel or iron content when delivered to the job site for installation. (See "C" below for examples.) CDOT provides waivers for manufactured products and products that are not predominately steel or iron. (See "D" below for examples.) Buy American strictly limits, but does not eliminate, the amount of foreign steel. (See "E" for minimum use & waiver information.)
- 4.1.8 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". Manufacturing begins with the initial melting and mixing, and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process.
- 4.1.C Examples of products that are subject to Buy America requirements include, but are not limited to, the following:
  - steel or iron products used in pavements, bridges, tunnels or other structures, which include, but are not limited to, the following: fabricated structural steel, reinforcing steel, piling, high strength bolts, anchor bolts, dowel bars, permanently incorporated sheet piling, bridge bearings, cable wire/strand, pre-stressing / post-tensioning wire, motor/machinery brakes and other equipment for moveable structures;
  - guardrail, guardrail posts, end sections, terminals, cable guardrail;
  - steel fencing material, fence posts;
  - steel or iron pipe, conduit, grates, manhole covers, risers;
  - mast arms, poles, standards, trusses, or supporting structural members for signs, luminaires, or traffic control systems; and
  - steel or iron components of precast concrete products, such as reinforcing steel, wire mesh and pre-stressing or post-tensioning strands or cables.

#### 2020 CDOT FMM

- 4.1.D Examples of products which are exempt from Buy America requirements include, but are not limited to, the following:
  - products made of material other than steel or iron (aluminum, copper, brass, nickel, etc.);
  - cabinets, covers, shelves;
  - clamps, fittings, sleeves;
  - washers, bolts, nuts, screws;
  - tie wire, spacers; chairs;
  - lifting hooks;
  - faucets; and
  - door hinges.
- 4.1.E Buy America will not prevent a minimal use of foreign steel or iron provided the total project delivery 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 prior concurrence from FHWA Headquarters, the FHWA Division Administrator may grant a waiver of the Buy America requirements for specific projects. When domestic steel products are available, meeting the contractor's schedule <u>should not</u> be the basis for requesting a Buy America waiver.
- 4.1.F The <u>Contractor</u> shall maintain the certifications on file at the project that every process, including the application of a coating, performed on steel or iron products either has or has not been carried out in the United States of America. These certifications shall create a chain of custody, and the lack of these certifications will be justification for rejection of the steel or iron product.
- 4.1.G Prior to the permanent incorporation into the project of any steel or iron product (domestic or foreign), the <u>Contractor</u> shall certify in writing to the Project Engineer on a monthly basis that the delivered quantity of each material meets the contract Buy America requirements; that a copy of the Buy America Certification from the Supplier is on file in the Contractor's project office; and the steel or iron products are in compliance with the plans and specifications for this project. {Examples are included in this section}

The Contractor shall maintain a document summarizing the date and quantity of the material utilizing CDOT's Item Number(s) and Item Description(s) delivered to the project (examples on Page 14 & 16), along with the quantity of material installed during the month. The Contractor shall provide documentation of the project delivered cost of all foreign steel or iron permanently incorporated into the project, if any on a monthly basis (example on Page 15). This summary shall be delivered to the Project Engineer on a monthly basis as established per the revision of Section 106.11 of the Standard Specifications for Road and Bridge Construction. A monthly summary shall be required even if no steel or iron products are incorporated into the project during the month.

Note 1: Subsection 106.11 of the CDOT Construction Manual contains specific information on Buy America Requirements.

#### 5. GLASS BEADS for PAVEMENT MARKING

5.1 The material shall meet the requirements of Standard Specifications Subsection 106.11, Section 627, and Subsection 713.08.

#### 2020 CDOT FMM

#### 6. QUALITY MANAGEMENT PLANS FOR THE QUALIFIED MANUFACTURERS LIST OR THE APPROVED PRODUCTS LIST

- 6.1 CP 11 specifies requirements and procedures for a certification system that shall be applicable to all referenced manufacturers, as well as suppliers and contractors within certain industries. Certifying a Manufacturer's Quality Management Plan is not an automatic acceptance of any particular product, but an acknowledgement that the Manufacturer has taken steps to ensure that their quality controls meet the applicable industry standards. Manufacturers whose Quality Management Plans are acceptable will be placed on the Qualified Manufacturers List (QML). Only Manufacturers listed on the QML will be eligible to provide the referenced products to a CDOT project.
- 6.2 The following Standard Manufactured Materials as referenced in CP 11 require an annual submission of a Quality Management Plan (QMP) along with a sample for evaluation. Materials and Geotechnical Branch/ Asphalt Program maintains the QMP for the Sub-Part 1, Asphalt Binder and the Sub Part 2, Asphalt Emulsion. Contact them at: michael.stanford@state.co.us or 303-398-6576.

For the Sub-Part 3,4,and 5 the QMP will be managed by: michael.stanford@state.co.us or 303-398-6576.

- Part I, Standard Manufactured Materials Sub-Part 1.Asphalt Binder Sub-Part 2.Asphalt Emulsion
- Part I, Standard Manufactured Materials Sub-Part 3.Hydraulic Cement Sub-Part 4.Fly Ash Sub-Part 5.Hydrated Lime

These products are located on the APL. https://apps.coloradodot.info/apl/AplSearch.cfm

- 6.3 The following Fabricated Structural Materials as referenced in CP 11 require an annual submission of a Quality Management Plan (QMP). Submit your QMP to: keith.uren@state.co.us. or 303-398-6605. Contact Keith Uren for further information.
  - Part II, Fabricated Structural Materials
     Sub-Part 1.Steel Reinforcing Bars & Steel Dowel Bars.
     Subject Matter Expert: eric.prieve@state.co.us or 303-398-6542
     <a href="https://www.codot.gov/content/apl/SteelReinforcingBarsAndSteelDowelBars.pdf">https://www.codot.gov/content/apl/SteelReinforcingBarsAndSteelDowelBars.pdf</a>
  - Sub-Part 2.Epoxy Coaters of Reinforcing Steel.
     Subject Matter Expert: melody.perkins@state.co.us or 303-398-6562 https://www.codot.gov/content/apl/EpoxyCoatingForReinforcingSteel.pdf
  - Sub-Part 3.Precast Conc. Structures.
     Subject Matter Expert: keith.uren@state.co.us or 303-398-6605 https://www.codot.gov/content/apl/PrecastConcreteStructures.pdf

The QML is located within CDOT's Approved Products List (APL) web site, at: <u>https://www.codot.gov/business/apl/qualified-manufacturers-list.html</u>. A Notice to Manufacturers is located within the same web site that references specific evaluation protocols including AASHTO's National Transportation Product Evaluation Program (NTPEP).

7-01-2019

6.4 The respective QML web site pages are updated regularly. All pages will have at least one revision referencing acceptability for the new calendar year.

## 7. DESIGNATED PRODUCTS AND ASSEMBLIES

- 7.1 The majority of materials submitted for inclusion on CDOT projects will fall within one of four methods of product acceptance for their sampling and testing. CDOT always retains the right through its Quality Assurance (QA) Program to obtain samples for additional testing and require supplemental documentation.
- 7.2 If the material or product is not referenced within the four methods of product acceptance then the materials or products must be fabricated or supplied in accordance with the requirements of the applicable Colorado Department of Transportation specifications, plans, and standards. An example of processed materials not found in the following four methods are Aggregate Base Course (ABC), Hot Mix Asphalt (HMA), and Concrete (PCCP). An example of a manufactured product treated uniquely is the Dynamic Message Signs (DMS) which are competitively bid on projects or through state awards.

## 7.3.a. PRE-INSPECTION (PI):

Pre-Inspection is when representatives from the Colorado Department of Transportation visit a manufacturer's facility to perform an initial review of the company's quality control plan and employee certifications, as well as subsequent inspection visitations during the manufacturing of the product. Inspection arrangements shall be made by contacting the CDOT Staff Bridge Fabrication and Construction Inspectors at: kevin.howland@state.co.us (303) 757-9339 a minimum of 10 days prior to the beginning of fabrication. Failure to give notification will result in delays to the project and/or rejection of materials or products.

Note 2: Bearing Devices and Expansion Devices are inspected randomly at the discretion of the Staff Bridge Fabrication Inspectors.

#### Products needing Pre-Inspection:

- Bearing Devices (Type III) Bridge<sup>A</sup>
- Expansion Device, Modular Bridge<sup>A</sup> (0-6", through, 0-24")
- Prestressed Concrete Units Bridge<sup>A</sup>
- Structural Steel Bridge<sup>A</sup>
- Precast Concrete Deck Panels Bridge<sup>A</sup>

CDOT Form 193 is to be provided with the above referenced products.

#### 7.3.b. CERTIFIED TEST REPORT (CTR):

The Certified Test Report method of acceptance is when a manufacturer is required to submit the actual test results performed on the material being provided. The CTR shall contain the actual results of tests for the chemical analysis, heat treatment, and/or mechanical properties per the drawing and/or specification. The contract will designate products and assemblies that can be incorporated in the work, if accompanied by Certified Test Reports. The word preceding the "Test Report" may vary between different industries, such as Certified, Mill, Metallurgical, Laboratory; however, they are all considered equivalent.

In accordance with Subsection 106.13 of the Standard Specifications and the requirements of this document, each CTR shall include:

- 1. Department's project number,
- 2. Manufacturer's name,
- 3. Address of manufacturing facility,
- 4. Laboratory name & address,
- 5. Name of product or assembly,
- 6. Complete description of the material,
- 7. Model, catalog, stock no. (if applicable),
- 8. Lot, heat, or batch number identifying the material delivered,
- 9. Date(s) of the laboratory testing,
- 10. All test results that are required so as to verify that the material furnished conforms to all applicable Department specifications. Test results shall be from tests conducted on samples taken from the same lot, heat, or batch.
- 11. The following certification, signed by a person having legal authority to act for the Contractor: [Example included in this chapter.]

The Certified Test Report shall be a legible copy or an original document and shall include the Contractor's original signature. The signature (including corporate title) on the Certified Test Report, under penalty of perjury, shall be of a person having legal authority to act for the manufacturer or the independent testing laboratory. It shall state that the test results show that the product or assembly to be incorporated into the project has been sampled and passed all specified tests in conformity to the plans and specifications for this project. One legible copy or original document of the fully signed Certified Test Report shall be furnished to the Engineer prior to installation of the material. Failure to comply may result in delays to the project and/or rejection of the materials.

Each product or assembly delivered to the project must contain the lot, heat, or batch number identical to that on the accompanying Certified Test Report. Products or assemblies furnished on the basis of Certified Test Reports may be sampled and tested by the Department and if determined that the material does not meet the applicable specifications, the material will be rejected or accepted according to Subsection 105.03.

[An example of what is required on a CTR is included in this chapter.]

Products requiring Certified Test Report (below is an incomplete list):

- Bearing Devices (Type III) Bridge<sup>A</sup>
- Bridge Deck Forms, Permanent Steel<sup>A</sup>
- Cribbing, Steel
- Geogrid (or COC, per project specs)
- Glass Beads (for pavement marking)
- Mechanical Fasteners (Field) <sup>A</sup>
- Overhead Sign Structures <sup>A</sup>
- Pedestrian & Bikeway Railing
- Quicklime
- Soil Conditioner
- Structural Plate Structures
- Top Soil

7-01-2019

- Traffic Signal Structures <sup>A</sup>
- Water, Non-Potable
- Welded Wire Reinforcement

## 7.3.c. CERTIFICATE OF COMPLIANCE (COC):

The Certificate of Compliance method of acceptance is when a manufacturer is required to submit a document certifying that the material being provided meets all required Department specifications. A COC shall reference the required specifications for the chemical analysis, heat treatment, and/or mechanical properties per the drawing and/or specification, but not the actual test results. The contract will designate products and assemblies that can be incorporated in the work, if accompanied by Certificates of Compliance.

In accordance with Subsection 106.12 of the Standard Specifications and the requirements of this document, the certificate shall include:

- 1. Department's project number,
- 2. Manufacturer's name,
- 3. Address of manufacturing facility,
- 4. Laboratory name & address,
- 5. Name of product or assembly,
- 6. Complete description of the material,
- 7. Model, catalog, stock no.(if applicable),
- 8. Lot, heat, or batch number identifying the material delivered,
- 9. Date(s) of the laboratory testing,
- 10. Listing of all applicable specifications required by the Department for this particular product or assembly. Certificates shall reference the actual tests conducted on samples taken from the same lot, heat, or batch, and shall include a statement that the product or assembly to be incorporated into the project was fabricated in accordance with and meets the applicable specifications.
- The following certification, signed by a person having legal authority to act for the Contractor: [Example included in this chapter.]

The original Certificate of Compliance shall include the Contractor's original signature. The original signature (including corporate title) on the Certificate of Compliance, under penalty of perjury, shall be of a person having legal authority to act for the manufacturer. It shall state that the product or assembly to be incorporated into the project has been sampled and passed all specified tests in conformity to the plans and specifications for this project. One legible copy of the fully signed Certificate of Compliance shall be furnished to the Engineer prior to installation of material. The original shall be provided to the Engineer before payment for the represented item will be made.

Each product or assembly delivered to the project must contain the lot, heat, or batch number identical to that on the accompanying Certificate of Compliance. Products or assemblies furnished on the basis of Certificates of Compliance may be sampled and tested by the Department and if determined that the material does not meet the applicable specifications, the material will be rejected or accepted according to Subsection 105.03.

# [An example of what is required on a COC is included in this chapter.]

**Note 3:** If the Plans do not specifically reference a Certified Test Report (Mill Test Report) and the product category is not listed on the Approved Products List within the Pre-Approved level of acceptance, then a COC will be required.

# Products requiring Certificate of Compliance (below is an incomplete list):

- AEP (Asphalt Emulsion Prime)
  - Aggregate Bag (for the bag, CTR for agg.)
- Bearing Devices (Type I, II <sup>A B</sup>)
- Bridge Rail, Steel <sup>A</sup>
- Catch Basin Insert
- Cattle Guard Boxes, Pre-Cast
- Concrete Box Culverts, Precast
- Dampproofing, Asphalt
- Delineator Posts, Steel
- Ditch Control (Erosion Log & Silt Dike)
- Dust Palliative, Asphaltic or Magnesium
- Chloride
- Erosion Bales <sup>D</sup>
- Expansion Joint Material, Preform. Filler
- Fence (Wires & Posts)
- Fertilizer
- Flumes (all types) Gabions and Slope Mattress
- Gaskets
- Geogrid (for Erosion Control)
- Glass Beads (for PMM)
- Guard Rail End Anchors
- Guard Rail Metal <sup>A</sup>
- Guard Rail Posts Metal A
- Guard Rail Precast
- Guard Rail Posts Timber Blocks and
- Posts<sup>A</sup>
- Hay<sup>D</sup>
- Headgates
- Hydraulic Soil Stabilizers
- Inlets, Grates and Frames (Prefab)
- Interior Insulation
- Irrigation Systems
- Lighting, all items
- Light Standards, High Mast
- Light Standards, Metal
- Luminaires (Inclusive)
- Manholes, Rings and Covers (Prefab)
- MSE Wall Elements <sup>A,C</sup>
- Mulch (Hydraulic or Dry Applied)
- Mulch Tackifier
- Pedestrian Bridge <sup>A</sup>
- Perimeter Control (Silt Fence)

Page 8 of 24

## Special Notice to Contractors

- Piling <sup>A</sup>
- Pipes all material compositions
- Rest Area Materials (construction of)
- Retaining Wall Blocks
- Seeding (Native), Seed <sup>c</sup>
- Sign Panels
- Sprinkler System(s)
- Steel Chairs
- Steel Sign Posts
- Steel Sheet Piling <sup>A</sup>
- Storm Drain Inlet Protection
- Straw<sup>0</sup>
- Structural Glazed Tile and Ceramic Tile
- Structural Plate Structures <sup>A</sup>
- Structural Steel Galvanized <sup>A</sup>
- Treated Timber
- Vegetation (Sod & Plants)
- Water, Potable
- Water Control Devices
- Water Lines
- Welded Wire Mesh

#### Note 4:

- Mill Test Report shall be included.
- Certified Test Report(s) on components must accompany the material or product.
- Certified Test Report shall be included.
- Contractor may obtain a current list of Weed Free Forage Crop Producers by contacting the Colorado Department of Agriculture at (303) 239-4149

Example of stamp or affixed sticker to be placed on Certified Test Reports (CTRs), per Subsection 7.3(11).

I hereby certify under penalty of perjury that the material listed in this Certified Test Report represents \_\_\_\_\_\_\_(quantity and units) of pay item \_\_\_\_\_\_

(pay item # and description) that will be installed in conformance with the plans and specifications on Project Number\_\_\_\_\_\_.

Contractor Rep. Signature

Date

Example of stamp or affixed sticker to be placed on Certificates of Compliance (COCs), per Subsection 7.3 C (11).

I hereby certify under penalty of perjury that the material listed in this Certificate of Compliance represents \_\_\_\_\_\_ (quantity and units)

of pay item \_\_\_\_

(pay item # and description) that will be installed in conformance with the plans and specifications on Project Number\_\_\_\_\_\_.

Contractor Rep. Signature

Date

#### 7.3.d. PRE-APPROVED (APL):

The Pre-Approved method of acceptance is when a manufacturer is required to submit all relevant documentation on their product in advance of any specific project. A primary requirement to be considered for the Approved Products List (APL) is that the material retains a very high level of uniformity and consistency in its production quality (i.e. not project specific).

The submittal of Product literature /Tech Data Sheet (TDS), Certificates of Compliance, Certified Test Reports, Materials Safety Data Sheets (MSDS), etc., as well as product samples for specific categories combine all previous methods of acceptance into one. A Manufacturer whose product is not currently on the APL should read and follow the instructions within the Notice to Manufacturers on the APL web site at <u>https://www.codot.gov/business/apl</u>

Product evaluations can take a minimum of four months to in excess of two years for some product categories. If CDOT specifications need to be altered or created for a product's acceptance then it could take even longer.

In accordance with CDOT's Procedural Directive 1401.1, a manufacturer's product is evaluated within CDOT to determine its acceptability on CDOT construction projects, as defined by CDOT specifications, plans and standards. For additional information on the APL or the web site contact the Product Evaluation Coordinator within the Staff Materials & Geotechnical Branch at: edward.trujillo@state.co.us or 303-398-6566.

Locate products on the web site at: <u>https://www.codot.gov/business/apl</u> then go to Apl search, and then use the referenced Category, the Manufacturer's name, or the Product name. A category search requires that the drop-down menus be used.

#### **APL User Guidance**

- If three or more products are listed for any applicable category then one of these products shall be selected. If the category is unpopulated a COC will be required for the product actually used. If the category is under-populated a COC will be required for the product actually used if not from the APL. CDOT's Subject Matter Expert (SME) for the applicable category shall be contacted for assistance. A CTR may be requested if the Project Engineer deems it appropriate. Contact the CDOT Product Evaluation Coordinator at: edward.trujillo@state.co.us or 303-398-6566 for a list of SME's or assistance with any questions.
- 2. Products that are evaluated on a batch or lot basis and subsequently posted on the APL web site will not be posted indefinitely. They expire two years after their CTR date or they will be removed sooner if informed that the batch or lot is depleted. Specifically this refers to (1) single component, hot-applied, elastomeric membranes for bridge decks, (2) hot poured, joint/crack sealant, and (3) asphalt plug joints. The Batch # or Lot # must be included in the CTR.
- 3. Asphalt Binder and Asphalt Emulsions: Approved asphalt binders and emulsions are <u>valid for the calendar year</u> in which they were tested and approved, as per CP 11. The year is incorporated into the product name. On February 1<sup>st</sup> of each calendar year all products from two previous years will be automatically removed. CDOT Asphalt SME: michael.stanford@state.co.us
- 4. Environmental Erosion Control and Sediment / Pollution Control: All questions regarding this category's materials, both the current specifications and the products, should be directed to the CDOT Staff Environmental Branch SME: greg.fischer@state.co.us
- 5. Traffic Control Pavement Marking Material Sub-Category: All questions regarding pavement marking materials, both the current specifications and the products, should be directed the CDOT Staff Traffic Branch SME: manjari.bhat@state.co.us
- 6. Geosynthetics and Geotextiles:

CDOT Materials and Geotechnical SME: craig.wieden@state.co.us https://www.codot.gov/business/designsupport/matgeo/materialsbulletins/Materials%20Bulletin%202008%20No%201.pdf/view This Materials Bulletin clarifies the terminology and application of geosynthetics as specified in the Standard Specifications and the Standard Special Provision (SSP), *Revision of Sections 208,* 420, 605, and 712 – Geosynthetics and Geotextiles. For New York State web site navigation refer to (NYDOT APL Instructions) at <u>www.dot.ny.gov/index?nd=nysdot</u>. (See Item 420 on the OA Schedule.)

7. Concrete Mix Designs:

The APL website <u>https://www.codot.gov/business/apl/concrete-mix-designs</u> contains a folder listing concrete mix designs that have been pre-approved. When a concrete mix is placed on the APL, it meets the most current CDOT Standard Specifications; however, it may not meet a CDOT project's Special Provisions. CP 62 is the procedure for approving all concrete mixes for use on a CDOT project. (Review FMM Chapter 600). Contact valentino.niculae@state.co.us or 303-398-6549 for further information.

- 8. Warm Mix Asphalt (WMA) Mixes: The APL website contains a folder listing approved WMA technologies and a folder listing approved contractors for specific WMA technologies that have been pre-approved for use on CDOT Projects. Use of a WMA mix on a Project shall be approved by the Project Engineer with the concurrence of the Region Materials Engineer. Warm Mix Asphalt SME: michael.stanford@state.co.us
- Contractors are required to submit a document entitled Contractor's APL Verification along with a copy of the Form 595 to the project engineer documenting the selection of the CDOT APL products that they wish to include for project incorporation. (Example included in this chapter.)
- 10. APL Quality Assurance Program: Upon selecting the sub-category or base-category the Product Identification Number (PID), Product Name, Manufacturer, and Comments will be displayed.
  - A. By clicking on the PID / Form 595 the Pre-Approved Product Evaluation Request & Summary will be displayed. This will provide the customer with both a mini product data sheet and the information necessary for additional product analysis for specific utilization.
  - If a product fails to perform within minimum quality expectations contact the CDOT Product Evaluation Coordinator edward.trujillo@state.co.us or 303-398-6566, immediately via e-mail also listed in the APL web site.

**DISCLAIMER:** The Colorado Department of Transportation (CDOT) is not obligated to any manufacturer to use any of their products listed in the Approved Products List (APL). The APL simply documents that the listed products have been reviewed, tested, and evaluated against CDOT standards, and were found to be acceptable to be used in CDOT projects. Acceptance is based on product quality; however, price or availability may be the determining factor by a contractor or sub-contractor on the CDOT project.

The product shall be removed from the APL if Product Performance comments indicate that field performance is unacceptable to CDOT quality standards or if the product varies from the data as originally submitted. Additional disclaimer information can be found within the APL web site.

# **APL Categories**

Note 5: Adhesives are no longer listed in the APL. They will be used as project specials only. Contact Staff Bridge Subject Matter Expert for further information: mohamed.zaina@state.co.us

Note 6: Maintenance\Alternate Traction Device\Passenger/Commercial must meet 2 CCR 601-14 / CRS42-4-601. Contact the Maintenance Staff Engineer for further information: tyler.weldon@state.co.us

Note 7: Sealant\Mastic\Black for Asphalt/ Grey for Concrete used for Bridge Construction will be Project Special only, for further information contact: kassim.alkanani@state.co.us . For the Maintenance requirement for the Sealant must meet the required AASHTO / ASTM specifications, for further information contact: tyler.weldon@state.co.us.

Note 8: Traffic Control\Reflective Element\Delineator Post Marker will not be listed in the APL Staff Traffic is moving to replace the product to the Flexible Post Reflector. The project can continue to purchase the Delineator Post Marker (Reflector) as a Project Special only. For further information contact: manjari.bhat@state.co.us

APL Category	APL Sub-Category	APL Base Category	Material Code	
Adhesive:	Anchoring, Lateral:	Acrylic	See Note 5	
		Cementitious	See Note 5	
		Ероху	See Note 5 See Note 5 See Note 5	
		Polyester		
	Anchoring, Overhead:	N/A		
	Bonding:	Ероху	See Note 5	
Asphalt:	Asphalt Release Agent:	Truck Bed Only	401.09.01.00	
		Truck & Equipment	401.09.01.00	
	Binder:	PG 58-28	702.01.01.01	
		PG 58-34	702.01.01.02	
		PG 64-22	702.01.01.03	
		PG 64-28	702.01.01.04	
		PG 70-28	702.01.01.05	
		PG 76-28	702.01.01.06	
	Emulsion:	CSS-1	702.03.18.00	
		CSS-1h	702.03.19.00	
		CRS-2	702.03.15.00	
		CRS-2P	702.03.21.00	
		CRS-2R	702.03.23.00	
		CQS-1h	702.03.20.00	
		HFMS-2	702.03.08.00	
		HFMS-2s	702.03.10.00	
		HFMS-2P	702.03.25.00	
		HFMS-2sP	702.03.26.00	
		HFMS-2h	702.03.09.00	
		HFRS-2P	702.03.24.00	
		SS-1	702.03.11.00	
		SS-1h	702.03.12.00	
		ARA-1P	702.04.02.00	
	Hydrated Lime:	N/A	712.03.01.00	
	Roadway Patching:	Pre-Mixed [Bagged]	401.02.01.00	

Page 13 of 24

7-01-2019

Special Notice to Contractors

Bridge Structures:	Geocomposite Drain:	N/A	712.08.01.01	
	Thin Bonded Overlay:	Ероху	519.01.00.00	
		Non-Epoxy	519.01.00.00	
	Structural Wrapping Repair	N/A	601.09.02.00	
Concrete:	Admixture:	Air Entraining	711.02.01.00	
		Water-Reducing	711.02.01.00	
		Retarding	711.02.01.00	
		Accelerating	711.02.01.00	
		Water-Reducing & Retarding	711.02.01.00	
		Water-Reducing & Accelerating	711.02.01.00	
		Water-Reducing, High Range	711.02.01.00	
		Water-Reducing, HR & Retard.	711.02.01.00	
APL Category	APL Sub-Category	APL Base Category	Material Code	
Concrete	Admixture	Extended Set-Control	711.02.01.00	
		Specific Performance	711.02.01.00	
		(Concrete) Corrosion Inhibitor	711.02.01.00	
		Pigments, Integrally Colored	711.02.01.00	
		Miscellaneous	711.02.01.00	
	Curing Compound:	Type 1 [Clear, Wax Based]	711.01.01.00	
		Type 1 [Clear, Resin Based]	711.01.01.00	
		Type 2 [White Pigmented, Wax Base]	711.01.01.00	
		Type 2 [White Pigmented, Resin Base]		
	Cement:	Portland Cement, ASTM C 150	701.01.01.00	
		Blended Cement, ASTM C 595	701.01.02.00	
		Hydraulic Cement, ASTM C 1157	701.01.03.00	
	Pozzolan:	Fly Ash, Class C	701.02.01.00	
		Fly Ash, Class F	701.02.02.00	
		High Reactivity	701.02.04.00	
		Silica Fume	701.03.01.00	
Concrete:	Fiber:	Macro Fiber	709.04.02.00	
		Micro Fiber	709.04.02.00	
	Grout:	General Purpose (Non-Shrink)	601.02.14.00	
		Post-Tensioned Cable	618.02.01.00	
		PCCP Grout	ASTM 989	
	Tie Bar Anchorage	PCCP Tie Bar Epoxy	412.13.00.00	
	Repair/Patching:	Rapid Set, Horizontal	601.09.01.00	
		Rapid Set, Vertical & Overhead	601.09.01.00	
		Bonding Agent	601.09.01.00	
		Class DR [Pre-Packaged]	Project Spec	
Drainage:	Culvert Pipe:	Culvert Lining [Repair]	707.12.01.00	
		Open-Cut/Direct-Bury	712.13.02.00	
	Manholes & Inlets:	Manhole Riser	604.04.01.00	
		Trench Drain	712.14.01.00	
		Plastic Drains	712.14.01.00	
Environmental:	Sound Wall:	Absorptive	607.02.02.00	
		Reflective	607.02.02.00	
Erosion Control:	Soil Retention Rolled:	SRB [Biodegradable Class 1]	216.02.02.00	
		SRB [Photodegradable Class 1]	216.02.02.00	
		SRB [Biodegradable Class 2]	216.02.02.00	
		SRB [Photodegradable Class 2]	216.02.02.00	

2020 CDOT FMM 7-01-2019 Special Notice to Contractors **Erosion Control:** Soil Retention Rolled: TRM [Class1] 216.02.03.00 TRM [Class 2] 216.02.03.00 TRM [Class 3] 216.02.03.00 TRM [Class 4 / woven] 216.02.03.00 **Erosion Control:** Ditch Control: Silt Berm 208.02.02.00 Storm Drain Inlet Protect. (Type 1) Sediment/Pollution Ctrl: **Construction Inlet Protect.:** 208.02.08.01 Storm Drain Inlet Protect. (Type 2) 208.02.08.01 Storm Drain Inlet Protect. (Type 3) 208.02.08.01 Sediment/Pollution Ctrl: Concrete Washout Structure: Pre-Fabricated [Above Ground] 208.02.14.00 Sediment/Pollution Ctrl: Vehicle Tracking Control: Pre-Fabricated 208.02.15.01 APL Category APL Sub-Category APL Base Category Material Code Maintenance Deicing, Liquid Magnesium Chloride (Cat. 1) 712.04.01.00 Maintenance Deicing, Granular Brining Salt, Dry, Std (Cat. 8A-B) 712.04.02.00 Road Salt, Dry, Std (Cat. 8A-R) 712.04.02.00 Wet Salt, Std (Cat. 8B) 712.04.02.00 Brining Salt, Dry, Fine (Cat. 8C) 712.04.02.00 Road Salt, Dry, Fine (Cat. 8C-R) 712.04.02.00 Maintenance Inhibitor / Enhancer Corrosion Inhib, NaCl (Cat. A-1) 712.04.02.01 Corrosion Inhib, NaCl (Cat. A-3) 712.04.02.01 Maintenance **Alternate Traction Device** Passenger Vehicle See Note 6 **Commercial Vehicle** See Note 6 Paint / Coating: Anti-Graffiti: N/A 708.02.01.00 Concrete Corrosion Inhibitor: N/A 708.08.01.00 Epoxy Coating: N/A 708.03.03.00 Structural Concrete Coating: N/A 708.08.01.00 Structural Steel Paint: N/A 708.03.02.00 Wire Coating: N/A Pedestrian Safety: ADA Truncated Dome: Embedded 608.02.03.00 Retrofit 608.02.03.00 Joint System N/A 705.01.03.00 Right-of-Way Structure: Mailbox Support System: N/A 210.13.01,00 Utility Enclosure: N/A 604.04.02.00 Fence, Non-Standard Coating N/A 710.03.01.00 Pole Base Hardware: N/A 713.05.01.00 Roadway Safety: Cable Barrier: NCHRP 350 TL-3 606.02.06.00 NCHRP 350 TL-4 606.02.06.00 Guardrail W-Beam: Guardrail End Treatment 606.02.03.00 Guardrail End Treat., Spec. App. 606.02.03.00 Guardrail Synthetic Blockout 606.02.04.00 Crash Cushion: Sand Barrel Array 614.07.02.00 Guardrail Median Terminal 606.02.02.00 Barrier End Treatment (Terminal) 606.02.02.00 Impact Attenuator, Std, Perm. 614.07.02.00 Impact Attenuator, Wide, Perm. 614.07.02.00 Impact Atten., Lo-Maint, Perm. 614.07.02.00 Impact Atten., Spec-App, Perm. 614.07.02.00 Railing Roadway Safety: Pedestrian & Bicycle 514.05.01.00 Vehicle 606.02.05.00 Sealant [Joint & Crack]: Asphaltic Plug Joint: N/A

Page 15 of 24

518.03.01.00

	Hot Poured, Joint/Crack:	ASTM D 6690, Type II	702.06.01.00	
		ASTM D 6690, Type IV	702.06.02.00	
	A 4	ASTM D 5078	702.06.03.00	
	Mastic:	Black for Asphalt Grey for Concrete	See Note 7 See Note 7	
Sealant [Joint & Crack]:		Non-Sag	705.01.01.00	
Sealahi [Soline de Crack].	Silcone, Joint.	Self-Leveling	705.01.01.00	
	Pre-Formed Joint Filler:	N/A	705.01.02.00	
	Loop Detector Slot:	One Component	705.01.01.00	
	•.8	Two Component	705.01.01.00	
Soil / Geotechnical:	Stabilization:	Chemical, Liquid	308.03.02.01	
č	Vold Elimination:	Polyurethane Foam, Hi Density	308.03.02.01	
APL Category	APL Sub-Category	APL Base Category	Material Code	
Traffic Control:	Portable Changeable Message:	Trailer Mount	630.03.01.00	
		Vehicle Mount	630.03.01.00	
	Arrow Board:	Туре А	630.03.01.00	
		Туре В	630.03.01.00	
		Туре С	630.03.01.00	
		Type D	630.03.01.00	
	Speed Notification:	Radar/Message Trailer	630.03.01.00	
		Speed Display Trailer	630.03.01.00	
		Speed Display Device	630.03.01.00	
	Traffic Control Enhancement:	AFAD	630.04.01.00	
		Flashing Beacon	614.06.01.00	
		Warning Light	630.08.02.00	
		Raised Island, Temporary	630.08.02.00	
		Rumble Strip, Temporary	630.08.02.00	
	Channelizing Devices	Glare Screen	630.08.01.00	
	Channelizing Device:	Cone Tubular Marker	630.05.01.00 630.05.02.00	
		Vertical Panel	630.05.02.00	
		Drum		
		Barricade, Type 1	630.06.02.00 630.06.02.00	
		Barricade, Type 2	630.06.02.00	
		Barricade, Type 3	630.06.02.00	
	Channelizing Device:	Direction Indicator Barricade	630.02.02.00	
		Longitudinal Channelizing Device	630.06.04.00	
		Opposing Traffic Lane Divider	630.06.03.00	
	Delineator:	Flexible Post	612.02.02.00	
		Flexible, Multiple Hit Post	612.02.02.00	
		Guardrail Mount	612.02.02.00	
	Reflective Element:	Barrier (Solid Wall) Marker	612.02.04.00	
		Guardrail & Post Marker	612.02.04.00	
		Delineator Post Marker	See Note 8	
	120 H T T T	Linear Reflector Strip	612.02.05.00	
	Post Anchoring:	Mechanical System	612.05.01.00	
		Polyurethane Foam, Backfill	614.02.03.00	
	Traffic Barrier, Temporary:	Barrier, Non-Concrete	630.07.01.00	
		Barrier Gate	630.07.01.00	
	Crash Cushion, Temporary:	Impact Attenuator, Temporary	630.08.04.00	
		Truck Mounted Attenuator (TMA) Trailer Mounted Attenuator	630.08.03.00 630.08.03.00	

ði

2020 CDOT FMM	2020	CDOI	r FMM	
---------------	------	------	-------	--

**Special Notice to Contractors** 

705.08.01.00

Traffic Control: Sign Stand: N/A 630.02.01.00 Traffic Control: Pave. Marking Material: Preformed Plastic Tape, Type I, Perm. 713.13.01.00 Preformed Plastic Tape, Type II, Perm. 713.13.01.00 Preformed Plastic Tape, Type III Perm. 713.13.01.00 Thermoplastic, Hot Applied 713.12.01.00 Thermoplastic, Preformed, No-Preheat 713.14.01.00 Thermoplastic, Preformed, Preheat 713.14.01.00 **Epoxy Paint, Standard** 713.17.01.01 **Epoxy Paint, Modified** 713.17.01.02 Waterborne 708.05.02.00 Waterborne, Hi-Build 708.05.03.00 Polyurea, Paint 713.17.02.00 Methyl Methacrylate 713.19.01.00 **Recessed Pavement Marker** 713.18.02.00 Raised Flexible Marker (Temp.) 7 13.18.01.00 Temp. / Construction, Tape 713.16.01.00 Temp. / Construction, Paint 713.16.02.00 **APL Category APL Sub-Category** APL Base Category Material Code Traffic Control: Sign Sheeting: ASTM D4956, TypeIV 713.04.01.00 ASTM D 4956, Type V 713.04.01.00 ASTM D 4956, Type VI 713.04.01.00 ASTM D 4956, Type VI 713.04.01.00 [Roll-up & Cone Collar] 713.04.01.00 ASTM D 4956, Type VIII 713.04.01.00 ASTM D 4956, Type VIII, Fluorescent 713.04.01.00 ASTM D 4956, Type IX 713.04.01.00 ASTM D 4956, Type IX, Fluorescent 713.04.01.00 ASTM D 4956, Type XI 713.04.01.00 ASTM D 4956, Type XI, Fluorescent 713.04.01.00 Films / Miscellaneous 713.04.01.00 Waterproofing: **Concrete Sealer:** Alkyl-alkoxy Silane 515.03.01.00 Non-Alkyl-alkoxy Silane 515.03.01.00 Penetrating Epoxy 515.03.01.00 Micro-Subsurface Repair 515.03.01.00 Elastomeric Membrane: Single Component, Hot Applied 705.09.01.00

Non-Asphaltic

7-01-2019

Special Notice to Contractors



Kryptonite Construction Inc. 13369 W. Rocky Rd. Smallville, Colorado 91130 Phone 999-123-4567

Attn: Project Engineer

Date: August 3, 2018

Re: CDOT Contract ID: 53124

Re: CDOT Project No. CC 00-0000-00

Subject: Buy America Certification & Exception for Foreign Steel

Kryptonite Construction hereby certifies that during the month of July 2018 the materials and quantities represented below, to be incorporated into the project, meet the contract Buy America requirements. We also certify that the Buy America paperwork and certifications required by Section 106.11 are on file at the project.

1.) 550 LF of 24" culvert pipe for bid item 603-01180

Minor Exceptions: Yes X No Value less than 1/10 of 1% of the total contract cost or \$ 2,500.00 whichever is greater. Documentation is in our Project Files.

Respectfully,

Clark Kent Construction Manager Kryptonite Construction Inc. EXAMPLE

**Buy America Requirements** 

(Per requirements of Subsection 4.1) (Original Signatures Required, No Facsimiles Accepted)

Note 1: The Buy America Certification is to always be received by the Project Engineer prior to the steel or iron being incorporated into the project.

Note 2: The delivery date and/or the incorporation date may be included in the letter.

Note: This example depicts what is to be provided for each delivery.

Page 19 of 24

Kryptonite Construction Inc.

 Summary of Buy America Certifications Received for Installed Steel / Iron Products

 CDOT Project No.:
 CC000-000-00

 CDOT Contract ID:
 53124

 Summary for the Period Ending:
 July 2018

	ltem	Item Description	Delivery Date	Quantity Delivered to Project	Unit	Deliverad Cost *	BUY AMERICA CERTIFICATION Quantity	Installed Quantity	Unit	Installation Month	BUY AMERICA CERTIFICATION Date
	603-01180	24° culvert pipe	11-Jul-18	550	LF		550	300	LF	July	9-Jul-18
19.00	28/10						550	250	LF	August	9-Jul-18
Total	603-01180	24" culvert pipe		SS0	LF	0		550	LF		

Prepared by:

Date:

\* If there is any foreign steel or iron permanently incorporated into the project the Contractor shall provide documentation of the project delivered cost of that foreign steel or iron.

Title:

# EXAMPLE

Suggested format for the reconciliation of the Buy America Certification quantities with Installed Quantities. The Contractor shall submit this summary to the Project Engineer.

Subsection 4.1.G "The Contractor shall maintain a document summarizing the date and quantity of the material utilizing CDOT Item Number(s) and Item Description(s) delivered to the project, along with the quantity of material installed during the month."

CLARIFICATION: This summary example indicates that the Period Ended in October. The Buy America Certification date is from July 9th and the Delivery Date is from July 11th. This example document summarizes the quantity delivered along with the quantity installed.

## 7-01-2019

Special Notice to Contractors

# Kryptonite Construction Inc. 13369 W. Rocky Rd. Smallville, Colorado 91130 Phone 999-123-4567

Attn: Project Engineer

Date: October 4, 2018

Re: CDOT Contract ID: 53124

Re: CDOT Project No. CC 00-0000-00

Subject: Buy America Certification & Exception for Foreign Steel

Kryptonite Construction hereby certifies that during the month of September 2018 the materials and quantities represented below, to be incorporated into the project, meet the contract Buy America requirements. We also certify that the Buy America paperwork and certifications required by Section 106.11 are on file at the project.

1.) 150 LF of 24" culvert pipe for bid item 603-01180

Minor Exceptions: X Yes No Value less than 1/10 of 1% of the total contract cost or \$ 2,500.00 whichever is greater. Documentation is in our Project Files.

1.) 16 panels of ADA Truncated Domes which were imported from China were incorporated into the project. The total contract cost to date of imported steel or iron is \$1,831.66.

Respectfully,

Clark Kent Construction Manager Kryptonite Construction Inc.

# EXAMPLE

**Buy America Requirements** 

(Per requirements of Subsection 4.1) (Original Signatures Required, No Facsimiles Accepted)



Kryptonite Construction Inc.

 Summary of Buy America Certifications Received for Installed Steel / Iron Products

 CDOT Project No.:
 CC000-000

 CDOT Contract ID:
 53124

 Summary for the Period Ending:
 September 2018

Item	Item Description	Delivery Date	Delivered to Project	Unit	Delivered Cost *	CERTIFICATION Quantity	Installed Quantity	Unit	Installation Month	CERTIFICATION Date
603-01180	) 24" culvert pipe	25-Sep-18	150	LF	1.19 4.4	150	150	LF	September	21-Sep-18
608.02.03	.00 ADA Trunc Dome, 2x3	27-5ep-18	16	EA		0	16	EA	September	9 - U

Prepared by:

.....

Date:

\* If there is any foreign steel or iron permanently incorporated into the project the Contractor shall provide documentation of the project delivered cost of that foreign steel or iron.

Title:

## EXAMPLE

Suggested format for the reconciliation of the Buy America Certification quantities with installed Quantities. The Contractor shall submit this summary to the Project Engineer.

Subsection 4.1.G "The Contractor shall maintain a document summarizing the date and quantity of the material utilizing CDOT Item Number(s) and Item Description(s) delivered to the project, along with the quantity of material installed during the month."

CLARIFICATION: This summary example indicates that the Period Ended in September. A Buy America Certification was not provided for the embedded type ADA Truncated Dome panels of a dimension of 2' x 3' each. This summary example correlates to the Buy America Certification & Exception for Foreign Steel document on the preceding page.

**Special Notice to Contractors** 

American Glass Bead Inc. Desert Ray, Tx. 76660 Phone: (254)562-2541 Fax: (254)562-2542 www.agbi.com

## **CERTIFIED TEST REPORT**

Colorado Department of Transportation (CDOT) project number: MTCE 03-022 Name of Product: AASHTO M 247 Type 1 Colorado Spec Glass Beads \*Product Code: AGBI- 0123 Product Batch Number: 021805 \*Product date of manufacturing: April 25, 2017 \*Quantity Shipped: 44000 Pounds \* Date of Shipment: TBA

Laboratory Information:

\*AGBI Inc.: HWY 40 & FCR 145

\*Testing Date: 2/18/05

\* Samples Tested: Samples are from Batch # 021805

AASHTO Designation M 247

\*AASHTO M 247 Type 1 Colorado Spec Test Results: Gradation (ASTM Standard D 1214)

Sieve Designation	Specification for AASHTO M 247 Mass Percent Passing (Type 1)	Test Result
No. 20 (0.850 mm)	100	100
No. 30 (0.600 mm)	75-95	86.9
No. 40 (0.425 mm)	-	-
No. 50 (0.300 mm)	15-35	24.2
No. 80 (0.180 mm)	-	-
No. 100 (0.150 mm)	0-5	.7

AASHTO M 247 Type 1: Test Results: Other Properties

Element / Method	Specification for AASHTO M 247 Specification Limit	Test Result
Roundness/ASTM D 1155	70% min	71.4%
Crushing Resistance ASTM D 1213	Retained 0.425-mm (No. 40) sieve 133N (30 lbs.) min.	Passing
Refractive Index (Ref: TTB1325C Section 4.3.3)	1.50 min	1.52
Moisture Resistance	Non-Moisture absorption & Free flowing	Passing
Flotation	90% of all beads shall float in xylene	n/a

Certification of Material: The referenced material meets or complies with the AASHTO M 247 Type 1 Colorado Specification.

Billy Gibbons / Quality Control

EXAMPLE-CTR
[Per requirements of Section 7]
(Original Signatures Required,

is on Project No.	
Date	
-	units) of pay item cription) that will be i ns on Project No

Page 22 of 24

## 7-01-2019

**Special Notice to Contractors** 

## North-By-Northwest, North-By-Northwest, Inc. 9876 S. Eva-Marie Blvd. Grant, South Dakota 54321 Phone 999-123-4567

#### **Certificate of Compliance**

Product Name: Universal Bridge Deck Expansion Joint Model: UBDEJ-101 Lot: 135-02

**Description:** Pre-formed Silicone gland, that can be bonded directly to an Elastomeric concrete joint interface with a single component silicone-locking adhesive.

## **Material Testing Specifications:**

Property Durometer (Shore A) Tensile (psi) Elongation (%) Tear (die B ppi) Compression Set At 350°F 22 hrs. Operating Temperature Range Specific Gravity Test Method ASTM D 2240 ASTM D 412 ASTM D 412 ASTM D 624 ASTM D 395

Mean Value 55 650 psi 382 % 88 ppi 30 %

-60° F to 450° F 1.51

#### **State Specification Reference:**

Colorado DOT Standard Specifications for Road and Bridge Construction, Section 412.13 (c). Project plans as required.

CDOT Project Number NH 0507-123

The above referenced tests were performed within our laboratory on May 10<sup>th</sup> 2017. All tests passed and the minimum required values were exceeded. Applicable laboratory test reports are available upon your request.

North-By-Northwest, Inc.

<u>John Doe</u> John Doe Manager, Quality Assurance

#### Date: 12 May 2017

I hereby certify under penalty of perjury that the material listed in this Certificate of Compliance represents \_\_\_\_\_\_(quantity and units) of pay item \_\_\_\_\_\_ (pay item # and description) that will be installed in conformance with plans and specification on Project Number \_\_\_\_\_\_

Contractor

Date

EXAMPLE-COC [Per requirements of Section 7]

(Original Signatures Required, Legible copy Accepted)

7-01-2019

Special Notice to Contractors

20

# Kryptonite Construction Inc. 13369 W. Rocky Rd. Smallville, Colorado 91130 Phone 999-123-4567

# **CONTRACTOR'S APL VERIFICATION**

Date:	
CDOT Contract ID	
CDOT Project No.:	
CDOT Project Location:	
plans, the 2017 Standard Spec	ected from the CDOT Approved Products List in accordance with the project if in the context of the construction, and the 2020 Field Materials 595 with this letter i f selecting from the APL.
APL Category:	
APL Sub-Category:	
APL Base Category:	
APL Reference No.:	
Product / Facility Name:	
Manufacturer:	
Date of Web Site Review & S	Selection:
	Kryptonite Construction Inc. <u>Veronica Dee</u> Veronica Dee Construction Manager
Compliance represents(pay	ry that the material listed in this Certificate of (quantity and units) of pay item item # and description) that will be installed in ion on Project Number
Contractor	Date

EXAMPLE-APL-

Verification

(Per requirements of Subsection 7.3.d) (Original Signatures Required)

Page 24 of 24