Book 2 – Technical Requirements I-25 North Design Build PE: IM C040-029 (17354) Construction: I 025A-016 (18842)

September 17 August 20, 2012 Draft

Section 1 - General

1.0 GENERAL

1.1 Project Description

The Project is located on I-25 in northern Colorado Springs: starting at Pine Creek and proceeding north to the Monument Interchange. The project involves the widening of the I-25 corridor to six (6) through lanes, plus auxiliary lanes, from the Pine Creek Bridges north to the existing concrete pavement, with an eight (8) foot outside shoulder adjacent to auxiliary lanes otherwise twelve (12) foot outside shoulder and a twelve (12) foot inside shoulder to be turned into the High Occupancy Vehicle (HOV) lane in the future. Additional paving will be required north of the existing concrete pavement for the NB lanes at the I-25 /Monument Interchange.

1.2 Basic Configuration

The Basic Configuration is defined as Work within the Right-of-Way that is required to: conform to the eight (8) lane configuration and six (6) lane configuration of I-25 north of Colorado Springs and typical sections at selected locations, as shown in the I-25 Environmental Assessment (I-25 EA) conceptual drawings in the Reference Documents located on the web page http://www.coloradodot.info/projects/I25NorthCOSDB. Stationing listed below is from the I-25 EA conceptual drawings.

The Basic Configuration is further defined as follows:

- 1. Lane Configuration:
 - A. From Pine Creek to Interquest Parkway:
 - I. 3 12ft. travel lanes
 - 12ft inside shoulder (future HOV lane), 12ft outside shoulder without auxiliary lanes
 - III. Auxiliary lanes with 8ft outside shoulder
 - B. Interquest Parkway to-Sta 1265+00 Monument Interchange:
 - I. 3 12ft. travel lanes
 - II. 12ft inside shoulder and 12ft outside shoulder
 - C. Sta 1265+00 to Sta 1365+00 (Temporary Configuration)
 - I. 3- 12ft travel lanes
 - II. Match existing shoulders
 - D. Sta 1365+00 to Southern end of Concrete Pavement of the Monument Interchange
 - I. 3 12ft. travel lanes
 - II. 12ft inside shoulder and 12ft outside shoulder
 - E. Concrete Pavement New Pavement Marking
 - . 3 12ft. travel lanes

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II. 12ft. inside shoulder and 12ft. outside shoulder

- F. Northern Termini ~Sta 1613
 - I. NB Transition from 3- 12 ft. lanes to 2- 12ft. lanes
 - II. SB Transition from 2- 12 ft. lanes to 3- 12ft. lanes
 - III. Transition shoulders to existing
- 2. Any structures constructed shall conform to the eight (8) lane configuration or the six (6) lane configuration as shown in the Reference Documents.
- Pavements shall be as follows: noted in Section 10 Geotechnical and Roadway Pavements.
 - A. Hot Mix Asphalt (HMA) pavement for the widening, milling & overlaying of through lanes, auxiliary lanes and shoulders for northbound I-25 mainline will be as follows:
 - HMA Design for existing pavement (6-inch Mill, 4-inch HMA Fill with 2-inch SMA wearing Course from MP 149.25 to MP 150.50)
 - HMA Design for existing pavement (2-inch Mill and 2-inch SMA Overlay of existing from MP 150.50 to MP 154.00)
 - III. HMA Design for widened pavement (8-inch HMA over 6-inches Aggregate Base Couse (ABC) placed on a minimum 2 feet of embankment with a minimum R-value of 60)
 - B. Hot Mix Asphalt (HMA) Reconstruction of through lanes, auxiliary lanes and shoulders for southbound I-25 mainline will be as follows:
 - I. 8 inches HMA over 6 inches Aggregate Base Course (ABC) placed on minimum 2 feet of embankment with a minimum R-value of 60.
- 4. Improvements to the I-25 / Northgate Interchange on and off ramps
 - A. Eliminate loop ramps Widen bridges to accommodate typical section
 - B. Convert to diamond interchange with signalized intersections. The proposed ramps shall be compatible with the proposed action of the I-25 EA. Preliminary plans are available on the web page at http://www.coloradodot.info/projects/I25NorthCOSDB/reference-documents Lengthen ramp transitions to meet current AASHTO standards.
- 5. I-25 Northbound termini
 - A. The Project termination location for Northbound shall be determined by the Contractor but shall adhere to design criteria outlined in Section 13—Readway.
 - B-A. I-25 Northbound terminiUltimate Configuration shall be carried past the northbound weight station physical gore of the exit ramp for 500ft. The transition section to the existing section shall be determined by the Contractor.
- 6. Stream Restoration Work
 - A. Kettle Creek

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- I. Grade control structures, habitat restoration (plantings, etc.)
- 7.6. Install Highway lighting
 - A. Interquest Parkway Interchange to Northgate Blvd. Interchange
 - B. Woodmen Rd. Interchange to Briargate Pkwy. Interchange
 - C. Provide lighting at the I-25 / County Line Rd. Interchange
- 8-7. PMJM linkage at Jackson Creek & Kettle Creek per the I-25 EA
- Relocate Ackerman Overlook CDOT will provide the design and will be constructed through a Force Account item according to Standard Specification for Road and Bridge Construction 109.04.
- 40.8. Replace snow gates for NB ramp lanes at Academy Blvd.
- 44.9. Northbound chain up station to be relocated to MP 159.0 to MP 159.5. The existing station shall be removed and graded to surrounding topography.
- 12.10. Stormwater Quality
 - A. Permanent stormwater quality improvements shall conform to the <u>Basic</u> <u>Configuration eight (8) and six (6) lane configurations of I-25 in both location and capacity</u>. Refer to the <u>Permanent Water Quality Report I-25 North Design Build El Paso County, Colorado</u> for guidance in the Reference Documents under http://www.coloradodot.info/projects/125NorthCOSDB.
- 43.11. __Alignments All proposed horizontal and vertical alignments shall be reviewed and approved Approved by CDOT.

Project Specials

FORCE ACCOUNT ITEMS

DESCRIPTION

This special provision contains the Department's estimate for force account items included in the Contract. The estimated amounts marked with an asterisk will be added to the total bid to determine the amount of the performance and payment bonds. Force Account work shall be performed as directed by the Engineer.

BASIS OF PAYMENT

Payment will be made in accordance with subsection 109.04. Payment will constitute full compensation for all work necessary to complete the item.

Force account work valued at \$5,000 or less, that must be performed by a licensed journeyman in order to comply with federal, state, or local codes, may be paid for after receipt of an itemized statement endorsed by the Contractor.

The following F.A. amounts are subject to change and will be finalized upon issuance of the FINAL RFP.

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	Force Account Item	Estimated Quantity	<u>Amount</u>
	F/A Minor Contract Revisions F/A Asphalt Pavement Incentive F/A Fuel Cost Adjustment F/A Roadway Smoothness Incentive F/A Asphalt Cement Cost Adjustment F/A OJT Colorado Program	F.A. F.A. F.A. F.A.	\$1,1500,000* \$1,117,50085,000.00 \$550,500,200,000.00 \$775,000,200,000.00 \$1,490,000,90,000.00 \$5,000.00
1	F/A On-the-Job Trainee F/A ESB Program	12,800 Hour	\$25,600.00 \$7,500.00
	F/A Erosion Control F/A Partnering F/A Kettle Creek Restoration	F.A. F.A.	\$ 500 300,000.00* \$10,000.00 \$400,000.00*
	F/A Ackerman Overlook	F.A.	\$4 5 00,000.00*