

# **CDOT Construction Manual**

## **APPENDIX C CHANGE ORDER EXAMPLES**

*March 2014*

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## APPENDIX C

### CHANGE ORDER EXAMPLES

Appendix C presents examples of the most common types of change orders that Project Engineers and Project Inspectors will prepare on a day-to-day basis. Although either the Project Engineer or the Project Inspector may prepare the change order, the Project Engineer is responsible for ensuring it is properly approved and distributed.

A sample Letter of Explanation accompanies each example change order. See Appendix B for guidance on preparing other letters and forms (e.g., Form 266).

Form 90 – Contract Modification Order is available at Forms Management on the Intranet Web Site. Consultants may obtain the forms from their CDOT contact.

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## Major CMO (Earthwork)

## MEMORANDUM

## DEPARTMENT OF TRANSPORTATION

4201 E. Arkansas Avenue  
 Denver, Colorado 80222  
 Phone 303-757-9011



DATE: July 7, 2013

Re: 19999/NH 66-066  
 SH 66-South

TO: (Resident Engineer or Program Engineer as per Region requirements)

FROM: (Project Engineer)

SUBJECT: Contract Modification Order #3, Sight Distance Improvements

This change order was written to compensate the Contractor for sight distance improvements at SH 66 and County Road 9. This intersection is the site of several recent accidents attributed to limited sight distance. The accident history did not warrant these improvements in the design phase of this overlay project. However, Jim Nelemb, Region Traffic Engineer, has requested this modification, at the urging of the local City Mayor and Fire Department.

The improvements include excavation of a cut slope between Station 239+ and Station 243+ right on SH 66, which limits sight distance to 150 feet for eastbound County Road 9 traffic. After excavation, the sight distance will be 500 feet as indicated on the attached drawing and as requested by the Region Traffic Engineer. The work will also include Topsoil, Seeding (Native), and Mulching (Weed Free), in order to revegetate the slope. The seed mix was provided by Mike Banoman, Staff Landscape Architect.

Item 203-00010, Unclassified Excavation (CIP), will be paid at the negotiated unit price of \$8.50/cubic yard for approximately 2000 cubic yards. This is within 3% of the 2012 *Cost Data Book* yearly average awarded price of \$8.37/cubic yard.

Item 207-00205, Topsoil, will be paid at the negotiated unit price of \$29.00/cubic yard for approximately 100 cubic yards. This price is within 5% of the weighted average awarded price of \$27.65/cubic yard for projects with similar quantities (+/- 50 cubic yards) from the 2012 *Cost Data Book*. The weighted average calculation is shown below for the projects with similar quantities:

	Qty (CY)	Unit Price (\$/CY)	Total (\$)
BR157A-011	109	34.00	3,706.00
CO701-217	100	21.00	2,100.00
FBR066A-002	64	21.00	1,344.00
SHE0701-215	120	31.00	3,720.00
Total	393		10,870.00

Weighted average price is \$10,870.00/393 CY = \$27.65/cubic yard

Item 212-00003, Mulching (Weed Free Hay) will be paid at the negotiated unit price of \$550.00/acre for approximately 1 acre. This is reasonable when compared to the average yearly price of \$577.97 /acre from the 2012 *Cost Data Book*.

Item 212-00006, Seeding (Native), will be paid at the negotiated unit price of \$1,300.00/acre for approximately 1.00 acre. This is reasonable when compared to the independent cost analysis (force account analysis) of \$1,333.94/acre shown below:

July 7, 2013  
NH 66-066  
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Labor: (Davis Bacon rates include fringes)			
Foreman	\$35.00/hr x 4 hours	\$140.00	
Operator	\$29.00/hr x 4 hours	116.00	
Laborer	\$22.00/hr x 4 hours	<u>88.00</u>	
Labor Subtotal		\$344.00	
	+67% loading	<u>230.48</u>	
Labor Total		\$ 574.48	\$ 574.48
Equipment: (Rates from 2012 QCTM, Ch. 6 Historical Data)			
Pick up	\$23.15/hr. x 4 hours	\$ 92.60	
Trailer mounted seed sprayer	\$19.45/hr x 4 hours	77.80	
Flatbed Truck	\$33.23/hr. x 4 hours	<u>132.92</u>	
Equipment Total		\$303.32	\$ 303.32
Material: (From attached supplier quote to contractor)			
Seed for 1 acre		\$300.00	
	+15% loading	<u>45.00</u>	
Material Total		\$345.00	\$ 345.00
Sub -Total Cost			\$1,222.80
Admin. loading (109.04(e)) on subcontract work \$100 + .05(222.80)			<u>111.14</u>
TOTAL			\$1,333.94

The Contractor has requested no additional mobilization for this work. The total cost of this change order is \$21,750.00

The projected cost for this project including this change order is \$1,440,000.00 or 1.7 percent under the current allotment as shown on the attached Form 65, Project Financial Statement. No budget action is required. The budget summary is as follows:

Current Project Budget	\$1,500,000.00	
Projected Costs to Completion	<u>\$1,475,000.00</u>	
Projected Surplus (Deficit)	\$25,000.00	(1.7%)

The added work will be performed concurrently with other items, therefore no additional time is required. The Contractor has been directed by Form 105 to proceed with this work. A copy of the completed Form 105 is attached.

This change order was discussed with the Jim LaFuz, Contracts and Market Analysis Area Engineer on July 4, 2013. Concurrence was obtained from Don Shotsat, Project Manager and John Cheney, Region Program Engineer on July 2, 2013. This change order was discussed with Bert Miles, FHWA Operations Engineer on July 4, 2013 and he determined he did not need to sign the Form 90.

LTR-Change to Scope or Intent of Contract



## Major CMO (Earthwork)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-066		Project Code (SA#): 19999	
	Location: SH 66 South			
	Date: July 7, 2013		Project Order No.: 003	
	Contractor: Good Aim Construction			
Complete Address: 14555 Lost Road Aurora, CO 80011		Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease \$21,750.00		Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Modification Title: Sight Distance Improvements		Total additional days allowed to complete work: 0		

Your Contract is hereby modified to include sight distance improvements for the intersection with County Road 9 between Station 239 and Station 244 on SH 66 as shown on attached revised plan sheet 156X. The work will include excavation of a cut slope between Station 239+ and Station 243+ right, Topsoil, Mulching (Weed Free Hay), and Seeding (Native) in order to revegetate the slope. The work will be completed in accordance with the 2011 CDOT Standard Specifications for Road and Bridge Construction, all contract documents, the attached seed mix, and as directed by the Engineer.

The following items are hereby added to your contract at agreed unit prices:

Project	Catg	Line	Item No.	Description	Quantity	Unit	Unit Price	Total
19999-BID 0200	0605	203-00010	Unclassified Excavation CMO 3		2,000.000	CY	\$8.50	\$17,000.00
19999-BID 0200	0610	207-00205	Topsoil CMO 3		100.000	CY	\$29.00	\$2,900.00
19999-BID 0200	0615	212-20003	Mulching (Weed Free Hay) CMO 3		1.000	Acre	\$550.00	\$550.00
19999-BID 0200	0620	212-20006	Seeding (Native) CMO 3		1.000	Acre	\$1,300.00	\$1,300.00

Total added items: \$21,750.00

Total for Contract Modification Order 003: \$21,750.00

This order does not change your contract completion date.

The Contractor accepts this change order for work to be performed and prices on which payment is to be based.			
<b>REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL</b>		<b>REQUIRED FOR ALL CHANGE ORDERS</b>	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
Approved by Region Transportation Director:	Date:	Approved by Resident Engineer:	Date:
		<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02

## Project Termini Extension Type I (Erosion Control)

## MEMORANDUM

## DEPARTMENT OF TRANSPORTATION

4201 E. Arkansas Avenue  
 Denver, Colorado 80222  
 Phone 303-757-9011



DATE: June 30, 2013 RE: 11111/NH 66-066  
 Route 66-South

TO: (Resident Engineer or Program Engineer as per Region requirements)

FROM: (Project Engineer)

SUBJECT: Contract Modification Order #2, Project Extension Type I, Erosion Control

This change order was prepared to correct erosion problems on the previous Route 66 corridor project. These problems consist of ditch scour, plugged and washed out culverts, slope erosion, undermined pavement, and increased flows directed into an offsite drainage. These problems were created by inadequate design of the drainage features.

The work will consist of grading, seeding, mulching, soil retention blanket, erosion bales, S&D Paving (Asphalt), inlets, check dams, and rip rap in selected ditches where steep grades and excessive flows have contributed to ditch scour. Additional work includes cleaning of selected culverts, relaying of a washed out culvert, placing of topsoil, grading eroded slopes, seeding and soil retention blanket on steep erodible fill slopes, and placing two 24-inch culverts on North Chicken Creek Road to direct increased offsite flows out of an undersized ditch. Grading of the ditches and slopes will be performed with Blading, Dozing and Combination Loader hours.

All bid items affected by this change order will be paid at the Contract bid unit prices. Soil Retention Blanket will be paid at the negotiated bid unit price of \$2.00/square yard for approximately 2000 square yards. This is reasonable when compared to the average bid price of \$2.10/square yard from the 2000 Cost Data Book. Relaying of pipe will be paid at the negotiated unit price of \$40.00/linear foot for 90 linear feet. This is reasonable when compared to the average bid price of \$39.50/linear foot from the 2000 Cost Data Book. Clean culvert will be paid at the negotiated unit price of \$200.00/each for approximately 5 culverts. This is reasonable when compared to the average bid price of \$197.00/each from the 2000 Cost Data Book.

In accordance with the *CDOT Construction Manual* the following criteria has been met:

- The Contractor is willing to perform this extra work.
- The need for this work was initially established but was not included in the plans due to budget constraints.
- The work constitutes a lengthening of this project and is similar in kind and nature to the original Contract.
- Project funds are available and the work can be completed at reasonable prices.
- The added work will be performed at Contract unit prices or negotiated unit prices.
- The total value of the extra work is less than \$100,000.00.
- The value of negotiated work does not exceed 20 percent of the value of the added work.
- Preapproval has been obtained from FHWA.

This work will be performed concurrently with other activities and will not require additional time.

The projected cost for this project including this change order is \$11,668,241.27 or 0.1 percent under the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

June 30, 2013  
11111/NH 66-066  
Page 2

Current Project Allotment	\$	11,656,459.00
Projected Costs to Completion	\$	11,668,241.27
Projected Surplus (Deficit)	\$	(11,782.27) -0.10%

This change order was discussed with Rock Hirschfeld, Region Program Engineer on June 23, 2001, and with Stone Jensen, Project Development Area Engineer on June 23, 2001. Concurrence was obtained from Don Shotsat, Project Manager on June 23, 2001, and from Rachel Carson, Region Planning and Environmental Manager on June 23, 2001. Written preapprovals from Gene Overseer, Chief Engineer, Dan Von Der Wagon, Project Development Branch Manager, and from Raoul Jesus of FHWA are attached.

A budget action will not be required for this change order.

In order not to delay the project, the Contractor has been directed by Form 105 to begin this work. A copy of the completed Form 105 is attached.

I Concur: \_\_\_\_\_  
Project Development Branch Manager

I Concur: \_\_\_\_\_  
Chief Engineer

## Project Termini Extension Type I (Erosion Control)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-066	Project Code (SA#): 11111
	Location: Route 66-South	
	Date: June 30, 2013	Project Order No.: 2
Contractor: Good Aim Construction		
Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$68,710.00		
Complete Address: 14555 Lost Road    Aurora, Co.    80011		
Total additional days allowed to complete work: 0		Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Modification Title: Project Extension Type I, Erosion Control		

Your Contract is hereby modified to include erosion control work between Milepost 243.5 and Milepost 245.6 on Route 66. No additional time will be allowed for this work. The work will be completed in accordance with the Contract Specifications and as directed.

ITEM DESCRIPTION	UNIT	PREVIOUS QUANTITY	ADDED QUANTITY	REV. PLAN QUANTITY	UNIT PRICE	INCR. COST TO PROJECT
<u>INCREASE:</u>						
203 Blading	HR	100	40	140	\$81.00	\$3,240.00
203 Combination Loader	HR	350	40	390	\$65.00	\$2,600.00
203 Backhoe	HR	350	40	390	\$123.00	\$4,920.00
203 Dozing (Landscaping)	HR	200	40	240	\$84.00	\$3,360.00
206 Structure Excavation	CY	7549	50	7599	\$5.00	\$250.00
206 Structure Backfill	CY	2148	50	2198	\$14.00	\$700.00
207 Topsoil	CY	21658	500	22158	\$3.00	\$1,500.00
208 Erosion Bales	EA	2500	200	2700	\$10.00	\$2,000.00
208 Check Dam	EA	50	10	60	\$800.00	\$8,000.00
212 Seeding (Native)	ACRE	30	3	33	\$325.00	\$975.00
212 Seeding (Native) (Hydr.)	ACRE	10	2	12	\$540.00	\$1,080.00
212 Mulching (Weed Free)	ACRE	34	3	37	\$470.00	\$1,410.00
212 Mulch Tackifier	LB	6800	300	7100	\$1.95	\$585.00
216 Soil Retention Blanket	SY	4840	2000	6840	\$2.30	\$4,600.00
506 Rip Rap (12 inch)	CY	141	75	216	\$34.00	\$2,550.00
507 Bit S & D Paving (Asphalt)	TON	4.5	15	19.5	\$216.00	\$3,240.00
604 Inlet Type C (10 foot)	EA	2	2	4	\$2,400.00	\$4,800.00
617 24-inch Culvert Pipe	LF	1964	290	2254	\$35.00	\$10,150.00
630 Flagging	HR	20000	300	20300	\$22.50	\$6,750.00
<u>ADD:</u>						
210 Relay Pipe (30 inch)	FA	0	6000	6000	\$1.00	\$6,000.00
TOTAL ESTIMATED INCREASED COST TO PROJECT						\$68,710.00

The Contractor accepts this change order for work to be performed and prices on which payment is to be based.

REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL		REQUIRED FOR ALL CHANGE ORDERS	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
OPTIONAL		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
			Date:

CDOT Form 90 07/02

## Project Termini Extension Type II (Paving Plus Time)

**MEMORANDUM****DEPARTMENT OF TRANSPORTATION**

Region Four  
Loveland Residency  
2207 E. Hwy 402  
Loveland, CO 80537  
(970) 622-1270  
FAX (970) 669-0289



**DATE:** 03/23/2012

**TO:** Laura Zamora, Region 4 Area Engineer

**FROM:** Gray Currier, Project Engineer

**SUBJECT:** Request for Pre-Approval, Extension of Project IM 392A-012, PIN 16639

Region 4 respectfully requests permission to extend the limits of Project IM 392A-012 a distance of 450 feet east on SH 392, in order to remove the currently deteriorated asphalt-pavement approach-to-project, and replace it with a concrete-pavement approach-to-project. Upon approval, a change order to place the 450-foot extension will be added to the current construction contract. Region 4 considers this a Type II – Critical Project Terminus Extension.

As required by Construction Manual paragraph 120.7.7.3.2, the following information is provided:

- The Contractor, Edward Kraemer & Sons, is willing to do the extra work. They have agreed to construct the additional quantities at original bid prices, and to construct added items at Cost Data Book weighted-average awarded bid prices. They will not require an additional mobilization payment.
- The Contractor has agreed to obtain sufficient additional bonding and insurance for the additional work, upon presentation of the Change Order.
- The proposed work is in close proximity to the project. The work is immediately adjacent to the current project, and will simply continue the paving on SH 392 an additional 450 feet to the east.
- The need for the work is of a critical nature for reasons of safety, structural adequacy, and design deficiency. The work will replace a rutted, unsafe portion of asphalt pavement; the existing asphalt roadway is structurally inadequate to handle the pre-intersection braking and turning movements of the projected traffic volumes; and the need for the added work is due to the deficiency of the original consultant-supplied project design, which did not address the poor condition of the existing approach-to-project.
- Sufficient funds exist in the current project to cover the proposed extension.
- The cost of the proposed work is not expected to exceed 50 percent of the value of the original Contract. Rather, the proposed work, at approximately \$325,000, will be only approximately 2 percent of the original Contract value of \$17,523,127.88.
- Contracts and Market Analysis Branch concurs that the anticipated cost saving to complete the work as a project extension is reasonable (Encl. 1).
- Performing the proposed work as a project extension will avoid the cost of preparing plans, advertising, and awarding a separate Contract. The cost as a separate project would be approximately \$396,000 (Encl. 2). As a project extension, the cost of approximately \$325,000 will save approximately 22 percent.

03/23/2012  
Request for Extension Pre-Approval, 16639  
Page 2 of 2

- Loveland Resident Engineer Scott Ellis and North Program Engineer Corey Stewart have concurred with the proposed design and the critical nature of the proposed extension.
- RPEM Myron Hora has completed the necessary environmental clearances and permits and has given written concurrence (Encl. 3).

Project IM 392A-012 is an FHWA full-oversight project. Written pre-approval has been provided by the FHWA Operations Engineer for use of Federal funds for this project extension (Encl. 4).


Region 4 respectfully requests permission to extend the limits of Project IM 392A-012 a distance of 450 feet east on SH 392.

I concur:

  
Project Development Branch Manager

3/26/12  
(Date)

I concur:

  
Chief Engineer

3/27/12  
(Date)

Enclosures:

1. Memo, 03/13/12, Contract & Market Analysis Branch: Concurrence that anticipated cost saving as a project extension is reasonable.
2. Spreadsheet, 03/13/12, Cost savings as project extension vs as a separate project: approx 22%.
3. Environmental Clearances and Permits: CDOT Form 128a Categorical Exclusion Determination (Revision Date 03/20/12), with attached Form 463 (Revision Date 03/20/12).
4. Email, 03/20/12, FHWA Operations Engineer: Concurrence to use Federal funds for extension.

cc: Corey Stewart, Myron Hora, Scott Ellis, Greg Jones

**MEMORANDUM**

DEPARTMENT OF TRANSPORTATION  
**Contracts and Market Analysis Branch**  
4201 East Arkansas Avenue, 4<sup>th</sup> Floor  
Denver, Colorado 80222  
Telephone: (303) 757-9736  
Facsimile: (303) 757-9868



**DATE:** 03/13/2012

**TO:** Gray Currier, Project Engineer

**FROM:** *Greg Jones, Contracts and Market Analysis Branch*

**SUBJECT:** Anticipated Cost Savings, Extension of Project IM 392A-012

I have compared the proposed costs of the project extension to the estimated costs if the work were bid as a separate contract. I have made adjustments to the estimated costs where appropriate. Please see the attached spreadsheet for the cost comparison.

I concur that the anticipated cost saving to complete the work as a project extension is reasonable.

Gregory S. Jones, PE  
Engineering Estimates and Market Analysis Unit

1 Attachment:  
Spreadsheet: 16639 Extension Estimate, 03-13-12

*ENCL #1*

Project Number: IM 392A-012										Estimated Prices and Costs for Separately Advertised and Awarded Project		
PCN: 16639												
I-25 & SH 392 Interchange Reconstruction												
Cost Estimate as Project Extension												
Line #	Category #	Item #	Description	Units	Quantity	Awarded Price	Total	FEEMA*1 Unit Cost	Extended Cost			
40	200	202-00220	Removal of Asphalt Mat	SY	4,350	\$ 3.05	\$ 13,267.50	\$3.10	\$13,485.00			
50	200	202-00250	Removal of Pavement Marking	SF	500	\$ 0.91	\$ 455.00	\$1.00	\$500.00			
110	200	203-00060	Embankment Material (Complete in Place)	CY	4,350	\$ 4.83	\$ 21,015.50	\$6.44	\$28,014.00			
115	200	203-00062	Embankment Material (Complete in Place) (Special)	CY	4,350	\$ 5.59	\$ 24,316.50	\$8.50	\$36,975.00			
125	200	203-01100	Proof Rolling	HR	10	\$ 81.27	\$ 812.70	\$85.00	\$850.00			
130	200	203-01500	Blading	HR	10	\$ 86.35	\$ 863.50	\$103.00	\$1,030.00			
150	200	203-01597	Potholing	HR	35	\$ 165.94	\$ 5,807.90	\$198.00	\$6,930.00			
175	200	207-00205	Topsoil	CY	300	\$ 3.56	\$ 1,068.00	\$5.42	\$1,626.00			
185	200	208-00002	Erosion Log (12 Inch)	LF	200	\$ 5.08	\$ 1,016.00	\$4.56	\$912.00			
190	200	208-00020	Silt Fence	LF	900	\$ 0.98	\$ 882.00	\$1.23	\$1,107.00			
195	200	208-00034	Gravel Bag	LF	116	\$ 4.15	\$ 481.40	\$6.60	\$765.60			
200	200	208-00045	Concrete Washout Structure	Ea	3	\$ 1,036.81	\$ 3,110.43	\$978.00	\$2,934.00			
220	200	208-00206	Erosion Control Supervisor	Day	24	\$ 25.00	\$ 600.00	\$85.00	\$2,040.00			
230	200	210-00810	Reset Ground Sign	Ea	3	\$ 60.34	\$ 181.02	\$65.00	\$195.00			
240	200	210-00831	Reset Traffic Signal Head	Ea	4	\$ 135.77	\$ 543.08	\$142.00	\$568.00			
XXX	200	210-04010	Adjust Manhole**	Ea	2	\$ 419.43	\$ 838.86	\$419.43	\$838.86			
275	200	212-00006	Seeding (Native)	Acre	0.20	\$ 699.85	\$ 139.97	\$700.00	\$140.00			
280	200	212-00032	Soil Conditioning	Acre	0.20	\$ 2,384.67	\$ 476.93	\$2,175.00	\$435.00			
285	200	213-00003	Mulching (Weed Free)	Acre	0.20	\$ 622.09	\$ 124.42	\$620.00	\$124.00			
370	200	304-06000	Aggregate Base Course (Class 6)	Ton	1,302	\$ 12.19	\$ 15,871.38	\$15.00	\$19,530.00			
400	200	412-00900	Concrete Pavement (9 inch)	SY	4,350	\$ 38.85	\$ 168,997.50	\$39.84	\$173,304.00			
462	200	506-01020	Geogrid Reinforcement/ SMCO#6 Tensar BX-1100	SY	4,350	\$ 5.40	\$ 23,490.00	\$5.50	\$23,925.00			
680	200	609-21020	Curb and Gutter Type 2 (Section II-B)	LF	250	\$ 11.03	\$ 2,757.50	\$12.90	\$3,225.00			
710	200	612-00002	Delineator (Type II)	Ea	10	\$ 24.14	\$ 241.40	\$25.70	\$257.00			
1096	200	625-00001	Construction Surveying (Hourly)	HR	40	\$ 100.00	\$ 4,000.00	\$125.00	\$5,000.00			
1100	200	626-00000	Mobilization***	LS	1	\$ -	\$ -	\$0.00	\$25,000.00			
1115	200	627-00011	Pavement Marking Paint (Waterborne)	Gal	20	\$ 41.23	\$ 824.60	\$39.00	\$780.00			
1140	200	630-00000	Flagging	HR	780	\$ 12.07	\$ 9,414.60	\$22.00	\$17,160.00			
1145	200	630-00007	Traffic Control Inspection	Day	4	\$ 46.09	\$ 184.36	\$82.00	\$328.00			
1150	200	630-00012	Traffic Control Management	Day	26	\$ 321.00	\$ 8,346.00	\$430.00	\$11,180.00			
1205	200	630-80370	Concrete Barrier (Temporary)	LF	500	\$ 13.69	\$ 6,845.00	\$18.60	\$9,300.00			
1515	200	630-80380	Traffic Cone / SMCO #004	Ea	50	\$ 7.70	\$ 385.00	\$7.00	\$350.00			
1525	200	203-01622	Sweeping (With Pickup Broom) / SMCO #004	HR	60	\$ 130.00	\$ 7,800.00	\$121.21	\$7,272.60			
					Total:	\$ 325,153.05						
					Anticipated cost savings of project extension versus separately advertised and awarded project:							22%
										***Added item, not in current contract for 16639. Contractor agrees to perform at 2010 Cost Data Book Average Bid Price.		
										***Mobilization: Would not apply to currently awarded project. Mobilization for separately advertised and awarded project is estimated.		
										**1 Prices based on average price (per each item) of 6 bidders from 16639.		

ENCL #2



<b>COLORADO DEPARTMENT OF TRANSPORTATION CATEGORICAL EXCLUSION DETERMINATION</b>		Date: 11/14/2007	Revision Date: 03/20/2012	Project Code #: 16639
Project Name: SH 392 & I-25 Interchange Reconstruction		Project #: IM 392A-012		
Project Description: INTERCHANGE RECONSTRUCTION				

**A. Categorical Exclusion Project Determination**

- This project fits Categorical Exclusion or Programmatic CE number 23 CFR 771.117 PARAGRAPH (D) (3)
- All required Clearance Actions indicated in Part B below have been completed. All Permits and Additional Requirements indicated in Part C below will be obtained before project ad.
- No significant environmental impacts will result from this project. The Region Planning and Environmental manager (RPEM) will ensure implementation of required mitigation commitments.
- CDOT Form #463 dated 12/15/2010 (Revised 03/20/2012) is attached.

**B. Clearance Actions**

REQUIRED	DATE COMPLETED	REQUIRED	DATE COMPLETED
<input checked="" type="checkbox"/> Air Quality (hot spot analysis)	10/22/2008	<input checked="" type="checkbox"/> Paleontology	10/22/2008
<input checked="" type="checkbox"/> Noise	10/22/2008	<input checked="" type="checkbox"/> Archaeology	10/22/2008
<input type="checkbox"/> Hazardous Waste		<input checked="" type="checkbox"/> History	10/22/2008
<input checked="" type="checkbox"/> ISA Checklist	10/22/2008	<input checked="" type="checkbox"/> Historic Bridge	10/22/2008
<input type="checkbox"/> MESA (or Phase 1)		<input checked="" type="checkbox"/> 4(f)	10/22/2008
<input checked="" type="checkbox"/> Threatened or Endangered Species	10/22/2008	<input type="checkbox"/> 6(f) Agreements	
<input checked="" type="checkbox"/> Wetland Delineation (survey)	10/22/2008	<input checked="" type="checkbox"/> Other	10/22/2008

All clearance requirements have been completed for the work indicated in the CDOT Form #463 referenced above.

RPEM Signature \_\_\_\_\_ Date 12/19/2008 Region # 04

I concur in the above category designation and the scope of environmental clearance/permits indicated.  
 FHWA Division Administrator Signature (when required) \_\_\_\_\_ (Please return form to RPEM) Date 12/30/2008  
 M URBAN

**C. Permits and Additional Requirements**

REQUIRED	DATE COMPLETED	REQUIRED	DATE COMPLETED
<input checked="" type="checkbox"/> 404 Permit	09/08/2009	<input type="checkbox"/> Division of Wildlife SB 40	
<input type="checkbox"/> 401 Certification		<input checked="" type="checkbox"/> Wetland Finding	01/07/2011
<input type="checkbox"/> 402 Certification		<input type="checkbox"/> APCD Bridge/Structure Demo permit	
<input checked="" type="checkbox"/> Const Stormwater Permit (CDPS)	07/01/2011	<input type="checkbox"/> Hazardous Material (Phase II)	
<input type="checkbox"/> Const Dewatering Permit		<input type="checkbox"/> 6(f) Completion	
<input type="checkbox"/> Floodplains Development Permit		<input checked="" type="checkbox"/> Other	
		SWMP REVIEW BY J. GOREK	03/14/2012

**D. Comments**

The project limits have been extended and are now reflected in this clearance dated 03/20/2012 *ANYONE HOCH*  
*[Signature]* RPEM

**E. Environmental Project Certification**

All clearance and permit requirements for this project have been completed and mitigation included in the FOR set of plans and specifications dated 07/30/2009. The appropriate documentation is on file in the Region office.

RPEM Signature \_\_\_\_\_ Date 08/03/2009

**Note to Project Manager:** Any changes to the plans and specifications after the date of the RPEM signature in part B that affect environmental impacts or mitigation must be approved by the RPEM.

Distribution: \_\_\_\_\_ Previous editions are obsolete and may not be used CDOT Form #128a  
 03/22/2012  
 RPEM (original); copies to: Project Manager, Region Right of Way (if ROW required), Central Files  
*ENCL # 3*

<b>COLORADO DEPARTMENT OF TRANSPORTATION</b> <b>DESIGN DATA</b>		Orig. Date: 11/14/2007		Project Code # (SA#): 16639		STIP#: SSP4028	
		Rev. Date: 03/20/2012		Project #: IM 392A-012			
		Revision #: 4		PE Project Code:			
		Region #: 04		Project Description: SH 392 & I-25 Interchange Reconstruction			
Page 1 to 3 Status: <input type="checkbox"/> Preliminary <input type="checkbox"/> Final <input checked="" type="checkbox"/> Revised							
Submitted By PM: NGUYENL				Approved by Program Engineer:			
Date: 12/15/2010				County: 069 069			
Revised by:		SORENSEN		SCHAFFERB		Municipality: Windsor	
Date:		03/28/2011		03/20/2012		System Code: I-Interstate	
						Oversight By: Full FHWA (NHS)	
						Planned Length: 0.713	
Geographic Location: I-25 AT SH 392 INTERCHANGE LARIMER COUNTY							
Type of Terrain: Rolling							
Description of Proposed Construction/Improvement(Attach map showing site location) INTERCHANGE RECONSTRUCTION							
<b>1 Project Characteristics (Proposed)</b> <input checked="" type="checkbox"/> Lighting <input type="checkbox"/> Handicap Ramps <input type="checkbox"/> Curb and Gutter <input type="checkbox"/> Curb Only <input checked="" type="checkbox"/> Sidewalk Width= 6.5' <input checked="" type="checkbox"/> Bikeway Width= 6' <input type="checkbox"/> Parking Lane Width= <input checked="" type="checkbox"/> Detours <input checked="" type="checkbox"/> Landscaping requirements (description): Native Landscape				Median (Type): <input checked="" type="checkbox"/> Depressed <input type="checkbox"/> Painted <input type="checkbox"/> Raised <input type="checkbox"/> None <input checked="" type="checkbox"/> Traffic Control Signals <input checked="" type="checkbox"/> Striping <input checked="" type="checkbox"/> Left-Turn Slots <input type="checkbox"/> Continuous Width= 12 <input checked="" type="checkbox"/> Right-Turn Slots <input type="checkbox"/> Continuous Width= 12 <input checked="" type="checkbox"/> Signing <input checked="" type="checkbox"/> Construction <input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Other (description):			
<b>2 Right of Way</b> ROW &/or Perm. Easement Required Yes No <u>7</u> Relocation Required No <u>      </u> Temporary Easement Required: Yes No <u>2</u> Changes in Access: No <u>      </u> Changes to Connecting Roads: Yes No <u>2</u>				<b>3 Utilities</b> (list names of known utility companies) Fort Collins-Loveland Water District, South Fort Collins Sanitation District, CDOT Electrical lines, Comcast, See Text for rest.			
<b>4 Railroad Crossings</b> # of Crossings: 0 Recommendations :							
<b>5 Environmental</b>		Type: N-CE Nonprogrammatic		Approved On: 12/30/2008		Project Code # Cleared Under:	
Project # Cleared Under:							
Comments:							
<b>6 Coordination</b> <input checked="" type="checkbox"/> Withdrawn Lands (Power Sites, Reservoirs, Etc.) Cleared through BLM or Forest Service Office Irrigation Ditch Name: <input type="checkbox"/> New Traffic Ordinance Required <input type="checkbox"/> Modify Schedule of Existing Ordinance Municipality: Windsor Other:							
<b>7 Construction Method</b>		Advertised By: State		NoAd Reason:		Entity / Agency Contact Name: Fort Collins/ Rick Richter	
						Phone #: 970 221-6798	
<b>8 Safety Considerations</b>		Project Under: AASHTO				Guardrail meets current standards: No	
<input type="checkbox"/> Variance in Minimum Design Standards Required <input type="checkbox"/> Justification Attached <input type="checkbox"/> Request to be Submitted <input type="checkbox"/> Bridge(see item 12) <input type="checkbox"/> See Remarks		<input type="checkbox"/> Safety project not all standards addressed		Comments: Guardrail to be updated as part of this project			
<input type="checkbox"/> Stage Construction (explain in remarks)							
3R projects							
Safety Evaluation Complete (date):							

ENCL #3 : ATTACHMT p 1 of 3

Page 2 of 3		Project Code # (SAP):		Project #:		Revise date:	
18639		IM 392A-012		03/20/2012			
Use Columns A, B, C, D and/or E to identify facility described below							
A = 025A		B = 392A		C =		D =	
E =							
<b>9 Traffic</b>							
Current Year	ADT	32900	18900	4800			
2009	DHV	3290	1512	800			
	DHV % Trucks	11.6	5.5	5.5			
Future Year	ADT	51719	44300	7400			
2035	DHV	5172	3120	830			
Facility Location		<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial
		<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Other	<input type="checkbox"/> Residential	<input type="checkbox"/> Other
<b>10 Roadway Class</b>							
Route	025A	392A					
Rept	261.790	99.576					
Endrept	263.310	100.289					
Functional Classification	F	M					
Facility Type	F						
Rural Code	2	2					
<b>11 Design Standards</b>							
Standard	Existing	Proposed	Ultimate	Standard	Existing	Proposed	Ultimate
Design Variance Required (substandard items are identified with an * in 1 <sup>st</sup> column & clarify as design variance with CDOT Form #464)							
Width of Travel Lanes	12	12	12	12	12	12	15
Shoulder width (t/inside)	4	4	4	4	4	4	4
Shoulder width (t/outside)	10	10	10	8	3	8	6
Design Speed	80	70	50	35	35	35	50
Cross Slope	2 %	1.5%	2.0%	2 %	1.5%	2 %	2 %
Max. superelevation rate	6	TAN	2	2	6-8	6	6%
Min. Radius	3050	TAN	794	N/A	910	314	400
Min. Horizontal SSD	910	UNCH	425	N/A	250	250	425
Min. Vertical SSD	910	UNCH	425	499	427	257	410
Max Grade	4	UNCH	6	6.3	4.18	5%	6.05%
Design Decision Letter Required (substandard items are identified with an * in 1 <sup>st</sup> column & clarify with decision letter)							
Typical Section Type	A	A	A	B	D	B	RAMP
# of Travel Lanes	4	4	4	2	2	2	1
Side Slope Dist. ("z")	12	12	12	12	12	12	VAR
Median Width	52	52	52	NA	NA	NA	N/A
Posted Speed	75	75	75	45	35	45	35

ENCL #3: ATTACHMT p20 of 3

Page 3 of 3		Project Code #(SA#): 16639		Project #: IM 392A-012		Revise Date: 03/20/2012				
<b>12 Major Structures</b> S= to stay, R= to be removed, P= proposed new structure										
Structure ID#	▼	Length	Reference Point	Feature Intersected	Standard Width	Structure Roadway	Structural Capacity	Horizontal Clearance	Vertical Clearance	Year Built
C-17-ER	R	210	100	I-25/ SH 392	28	392	33		16.92	1965
Proposed Treatment of Bridges to Remain in Place(address bridge rail, capacity, and allowable surfacing thickness):										
<b>13 Remarks</b> <p>A new structure (C-17-FK) is proposed to replace C-17-ER.</p> <p>The new structure is a 2-Span(west span 143'-6" and east span 125'-6") Post-Tensioned Precast Concrete U Girder Bridge. 104'-0" Roadway, Sidewalk Flowline to Sidewalk Flowline, with 90 degree skew, 6'-6" Sidewalk on each side, bridge rail type 7 (Special) with pedestrian fence (special).</p> <p>SH 392 has a raised median and I-25 has a depressed median.</p> <p>Utilities Continued: Poudre Valley Rural Electric Association, US Cable, Xcel Energy</p> <p>Note the entry "UNCH" in the Design Standards section. UNCH = Unchanged. The scope of this project is to reconstruct 392 over I-25 and the ramps, but I-25 mainline alignments and typical section will not be reconstructed or changed as part of this project. The only change to I-25 mainline will be that the existing bridge piers and barrier in the I-25 median will be removed and replaced by median cable barrier. The proposed structure spans I-25 mainline.</p> <p>Note that the NB I-25 on ramp will have a grade of 6.05%. The "Policy on Geometric Design of Highways and Streets" allows for a grade of up to 5%, however there is exception for up to 7% in certain cases. CDOT has obtained FHWA concurrence for a grade of 6.05% and the documentation is on file.</p> <p>Note that the minimum allowed radius for the ramps is given as 833' (PGDHS Exh. 3-26, e=6%, design speed = 50 mph). The NB off ramp has a 400' minimum radius. However, the 400' radius occurs in the terminal area where it is acceptable to have a lower design speed. The curve meets a design speed of 35 mph, which is acceptable. All other ramp radii are well above the 833' minimum. See the "Ramps" section on page 823 of the PGDHS. All criteria are met.</p> <p>The same holds true for the SB off ramp 410' vertical SSD. The minimum vertical SSD allowed for the ramp proper is 425'. The 410' vertical SSD occurs in the ramp terminal where a lower design speed is allowed. All criteria are met.</p>										

ENCL #3: ATTACHMT p 3 of 3

**Currier, Gray**

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**From:** Donna.Harmelink@dot.gov  
**Sent:** Tuesday, March 20, 2012 5:52 PM  
**To:** Currier, Gray  
**Subject:** RE: FHWA Concurrence for use of Federal funds for extension to CDOT Project IM 392A-012, Subaccount 16639

Gray

I have reviewed the 128 and 463 for the extension of Project IM 392A-012. I concurred that Federal Aid Funds can be used for the construction of the extension. Since this change is for a Project Termini Extensions FHWA will need to review and sign the CMO when it is written.

Thanks  
Dona

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**From:** Currier, Gray [mailto:Gray.Currier@DOT.STATE.CO.US]  
**Sent:** Tuesday, March 20, 2012 3:05 PM  
**To:** Harmelink, Donna (FHWA)  
**Cc:** Ellis, Scott; Zamora, Laura  
**Subject:** FHWA Concurrence for use of Federal funds for extension to CDOT Project IM 392A-012, Subaccount 16639

Donna,

As previously discussed, CDOT Region 4 respectfully requests to extend the subject project 450' to the east. As we saw when you and I toured the site this morning, this extension will remove and replace the deteriorated existing asphalt pavement approach-to-project with a new concrete pavement approach-to-project. The new pavement is needed to accommodate westbound vehicles' braking and turning movements, in advance of the new concrete intersection at SH 392 and Westgate Drive currently being built by the project.

The Categorical Exclusion Form 128a (attached) and the Form 463 (attached) have been updated to reflect the proposed extension. Sufficient funds exist in the current project to perform the work. Please indicate FHWA's concurrence in the use of Federal funds for this proposed project extension by return e-mail. Thank you very much.

Gray Currier, PE-1, CDOT Project Engineer  
SH 392 & I-25 Interchange Reconstruction  
Project No. IM 392A-012, Subaccount 16639  
Cell: (970) 962-4057; [gray.currier@dot.state.co.us](mailto:gray.currier@dot.state.co.us)

<< File: 16639 CatExc Revised.pdf >> << File: 16639 Form 463 Revised.pdf >>

ENCL #4

## Project Termini Extension Type II (Paving Plus Time)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: IM392A-012		Project Code (SA#): 16639	
	Location: SH 392 & I-25 INTERCHANGE RECO			
	Date: 04/04/2012		Project Order No.: 011	
	Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$ 275,009.19			
Contractor: EDWARD KRAEMER AND SONS INCORPORATED		Total additional days allowed to complete work: 45		
Complete Address: ONE PLAIN VIEW RD PLAIN, WI 53577		Federal Oversight? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Modification Title: Extension of Project 450' East				

The following items are hereby added to your contract at agreed unit prices:

Project	Catg	Line	Item No.	Description	Quantity	Unit	Unit Price	Total
16639-BID	0200	0268	210-04010	Adj Manhole SMCO#11	2.000	EACH	\$419.43000	\$838.86

Total added items:	\$838.86
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The quantities of the following existing contract items are hereby modified as follows:

Project	Catg	Line	Item No.	Description	Quantity	Unit	Unit Price	Total
16639-BID	0200	0040	202-00220	*Removal of Asphalt Mat	3,833.000	SY	\$3.05000	\$11,690.65
16639-BID	0200	0050	202-00250	*Removal of Pavement Marking	500.000	SF	\$0.91000	\$455.00
16639-BID	0200	0065	202-00810	*Removal of Ground Sign	1.000	EACH	\$125.71000	\$125.71
16639-BID	0200	0110	203-00060	*Embankment Material (Complete In Place)	13.000	CY	\$4.83000	\$62.79
16639-BID	0200	0115	203-00062	*Embankment Material (Complete In Place) (Special)	3,862.000	CY	\$5.59000	\$21,588.58
16639-BID	0200	0125	203-01100	*Proof Rolling	10.000	HOUR	\$81.27000	\$812.70
16639-BID	0200	0130	203-01500	*Blading	10.000	HOUR	\$86.35000	\$863.50
16639-BID	0200	0150	203-01597	*Potholing	35.000	HOUR	\$165.94000	\$5,807.90
16639-BID	0200	0175	207-00205	*Topsoil	75.000	CY	\$3.56000	\$267.00
16639-BID	0200	0185	208-00002	*Erosion Log (12 Inch)	200.000	LF	\$5.08000	\$1,016.00

I hereby accept this order, for work to be performed and prices on which payment is to be based.			
<b>REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL</b>		<b>REQUIRED FOR ALL CHANGE ORDERS</b>	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
Approved by Region Transportation Director:	Date:	Approved by Resident Engineer:	Date:
		<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

Previous editions may be used until supplies are exhausted

CDOT Form 90a 03/03



<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: IM392A-012		Project Code (SA#): 16639	
	Location: SH 392 & I-25 INTERCHANGE RECO			
	Date: 04/04/2012		Project Order No.: 011	
	Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$ 275,009.19			
Contractor: EDWARD KRAEMER AND SONS INCORPORATED		Total additional days allowed to complete work: 45		
Complete Address: ONE PLAIN VIEW RD PLAIN, WI 53577		Federal Oversight? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Modification Title: Extension of Project 450' East				

The quantities of the following existing contract items are hereby modified as follows:

Project	Catg	Line	Item No.	Description	Quantity	Unit	Unit Price	Total
16639-BID	0200	0190	208-00020	*Silt Fence	900.000	LF	\$0.98000	\$882.00
16639-BID	0200	0195	208-00034	*Gravel Bag	116.000	LF	\$4.15000	\$481.40
16639-BID	0200	0200	208-00045	*Concrete Washout Structure	3.000	EACH	\$1,036.81000	\$3,110.43
16639-BID	0200	0220	208-00206	Erosion Control Supervisor	24.000	DAY	\$25.00000	\$600.00
16639-BID	0200	0230	210-00810	*Reset Ground Sign	3.000	EACH	\$60.34000	\$181.02
16639-BID	0200	0240	210-00831	*Reset Traffic Signal Head	4.000	EACH	\$135.77000	\$543.08
16639-BID	0200	0270	210-04050	Adjust Valve Box	1.000	EACH	\$251.43000	\$251.43
16639-BID	0200	0275	212-00006	*Seeding (Native)	0.200	ACRE	\$699.85000	\$139.97
16639-BID	0200	0280	212-00032	*Soil Conditioning	0.200	ACRE	\$2,384.67000	\$476.93
16639-BID	0200	0285	213-00003	*Mulching (Weed Free)	0.200	ACRE	\$622.09000	\$124.42
16639-BID	0200	0370	304-06000	*Aggregate Base Course (Class 6)	1,156.000	TON	\$12.19000	\$14,091.64
16639-BID	0200	0400	412-00900	*Concrete Pavement (9 Inch)	3,812.000	SY	\$38.85000	\$148,096.20
16639-BID	0200	0462	506-01020	*Geogrid Reinforcement SMC0#6 Tensor BX-1100 13.1'x164' (239SY/Roll)	3,812.000	SY	\$5.40000	\$20,584.80
16639-BID	0200	0665	608-00010	*Concrete Curb Ramp	17.000	SY	\$112.31000	\$1,909.27

I hereby accept this order, for work to be performed and prices on which payment is to be based.			
<b>REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL</b>		<b>REQUIRED FOR ALL CHANGE ORDERS</b>	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

Previous editions may be used until supplies are exhausted

CDOT Form 90a 03/03

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: IM392A-012		Project Code (SA#): 16639	
	Location: SH 392 & I-25 INTERCHANGE RECO			
	Date: 04/04/2012		Project Order No.: 011	
	Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$ 275,009.19			
Contractor: EDWARD KRAEMER AND SONS INCORPORATED		Total additional days allowed to complete work: 45		
Complete Address: ONE PLAIN VIEW RD PLAIN, WI 53577		Federal Oversight? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Modification Title: Extension of Project 450' East				

The quantities of the following existing contract items are hereby modified as follows:

Project	Catg	Line	Item No.	Description	Quantity	Unit	Unit Price	Total
16639-BID	0200	0680	609-21020	*Curb and Gutter Type 2 (Section II-B)	100.000	LF	\$11.03000	\$1,103.00
16639-BID	0200	0710	612-00002	*Delineator (Type II)	10.000	EACH	\$24.14000	\$241.40
16639-BID	0200	0805	614-00011	*Sign Panel (Class I)	6.000	SF	\$20.11000	\$120.66
16639-BID	0200	0825	614-01502	*Steel Sign Support (2-Inch Round)(Post & Socket)	10.000	LF	\$13.07000	\$130.70
16639-BID	0200	1096	625-00001	*Construction Surveying (Hourly)	40.000	HOURL	\$100.00000	\$4,000.00
16639-BID	0200	1110	627-00005	*Epoxy Pavement Marking	3.000	GAL	\$82.47000	\$247.41
16639-BID	0200	1115	627-00011	*Pavement Marking Paint (Waterborne)	20.000	GAL	\$41.23000	\$824.60
16639-BID	0200	1140	630-00000	*Flagging	780.000	HOURL	\$12.07000	\$9,414.60
16639-BID	0200	1145	630-00007	*Traffic Control Inspection	6.000	DAY	\$46.09000	\$276.54
16639-BID	0200	1150	630-00012	*Traffic Control Management	39.000	DAY	\$321.00000	\$12,519.00
16639-BID	0200	1205	630-80370	Concrete Barrier (Temporary)	500.000	LF	\$13.69000	\$6,845.00
16639-BID	0200	1515	630-80380	*Traffic Cone SMCO#004, 08/2011 U	50.000	EACH	\$7.70000	\$385.00

I hereby accept this order, for work to be performed and prices on which payment is to be based.			
<b>REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL</b>		<b>REQUIRED FOR ALL CHANGE ORDERS</b>	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

Previous editions may be used until supplies are exhausted

CDOT Form 90a 03/03



<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: IM392A-012		Project Code (SA#): 16639		
	Location: SH 392 & I-25 INTERCHANGE RECO				
	Date: 04/04/2012		Project Order No.: 011		
	Contractor: EDWARD KRAEMER AND SONS INCORPORATED				
	Complete Address: ONE PLAIN VIEW RD PLAIN, WI 53577				
Modification Title: Extension of Project 450' East		Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease \$ 275,009.19		Total additional days allowed to complete work: 45	
				Federal Oversight? <input type="checkbox"/> Yes <input type="checkbox"/> No	

The quantities of the following existing contract items are hereby modified as follows:

Project	Catg	Line	Item No.	Description	Quantity	Unit	Unit Price	Total
16639-BID	0200	1525	203-01622	*Sweeping (With Pickup Broom) SMCO#004 08/2011 U	30.000	HOUR	\$130.00000	\$3,900.00

Total changed item quantities: \$274,170.33


Total for Contract Modification Order 011: \$275,009.19

I hereby accept this order, for work to be performed and prices on which payment is to be based.			
<b>REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL</b>		<b>REQUIRED FOR ALL CHANGE ORDERS</b>	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
Approved by Region Transportation Director:	Date:	Approved by Resident Engineer:	Date:
		<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

Previous editions may be used until supplies are exhausted

CDOT Form 90a 03/03

## Significant Change to Work (Change Wall Type)

<b>MEMORANDUM</b>	
<b>DEPARTMENT OF TRANSPORTATION</b>	
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> 4201 E. Arkansas Avenue  Denver, Colorado 80222  Phone 303-757-9011 </div> <div style="width: 50%; text-align: right;">  </div> </div>	
DATE:	July 4, 2013
	RE: 11111 / NH 66-063 Route 66 - East
TO:	(Resident Engineer or Program Engineer as per Region requirements)
FROM:	(Project Engineer)
SUBJECT:	Contract Modification Order #7, Design Change-Wall B

This change order was written to eliminate retaining Wall B and to construct a rock cut on a 0.5:1 slope with rock anchor stabilization.

As part of the Right-of-Way Agreement with The Bluffers Homeowners Association, CDOT agreed not to disturb a rock outcropping along a cut slope between Station 589 and Station 591 left. Consultant Design Engineering included a ground nail wall at this cut in order to comply with the Agreement. A field investigation by the Project Engineer revealed that a 0.5:1 cut slope could be constructed at significant cost savings while still meeting the Department's commitment to the locals. Ron Anders of Staff Geotechnical agreed that a slope would be stable on a 0.5:1 with rock anchors.

The work will consist of additional unclassified excavation, rock anchors, and a lump sum settlement with the Contractor for expenses already incurred for the wall construction. A detailed tabulation of these expenses is attached. Compensation for unclassified excavation and rock anchors will be at Contract unit prices. We do not foresee exceeding the plan quantity for rock anchors; therefore, the quantity for this item will not be increased.

This work does not impact the critical path; therefore, no additional time is required.

The projected cost for this project including this change order is \$11,650,000.00 or 0.06 percent under the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$11,656,459.00	
Projected Costs to Completion	<u>\$11,650,000.00</u>	
Projected Surplus (Deficit)	\$6,459.00	0.06%

A budget action will not be required for this change. In order to avoid a project delay, the Contractor has been directed by Form 105 to begin work. A copy of the completed Form 105 is attached.

This change order was discussed with Rock Howell, Region Program Engineer and with Cal Tolan, Project Development Area Engineer, on June 26, 2013. Concurrence was obtained from Dan Van Der Wagon, Project Manager for this project on June 23, 2013. Written concurrence from Raoul Jesus of FHWA is attached.

## Significant Change to Work (Change Wall Type)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-063	Project Code (SA#): 11111
	Location: Route 66 - East	
	Date: July 4, 2013	Project Order No.: 7
	Estimated cost to project: <input type="checkbox"/> Increase <input checked="" type="checkbox"/> Decrease (\$195,019.00)	
Contractor: Good Aim Construction	Total additional days allowed to complete work: 0	
Complete Address: 1455 Lost Road Aurora, Co 80011	Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Modification Title: Design Change-Wall B		

Your Contract is hereby modified to include a design change at Wall B. This change order was written to eliminate the wall and to construct the slope on a 0.5:1 slope with rock anchor stabilization.

The work will consist of additional unclassified excavation, rock anchors, and a lump sum settlement for expenses already incurred for the wall construction. Compensation for unclassified excavation and rock anchors will be at Contract unit prices.


<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>PREVIOUS QUANTITY</u>	<u>ADDED QUANTITY</u>	<u>REV. PLAN QUANTITY</u>	<u>UNIT PRICE</u>	<u>INCR. COST TO PROJECT</u>
<u>INCREASE:</u>						
203 Unclassified Excavation	CY	500,271	2,900	503,171	\$3.90	\$11,310.00
<u>DELETE:</u>						
504 Ground Nail Wall	SF	10,258	(6,720)	3,538	\$33.60	(\$225,792.00)
<u>ADD:</u>						
900 Added Costs-Wall B Deletion	LS	0	1	1	\$19,463.00	\$19,463.00
TOTAL ESTIMATED DECREASED COST TO PROJECT						(\$195,019.00)

This work does not impact the critical path, therefore, no additional time is required.

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.			
<b>REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL</b>		<b>REQUIRED FOR ALL CHANGE ORDERS</b>	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02

## Change Basis of Payment (From CY to FA)

<p><b>DEPARTMENT OF TRANSPORTATION</b></p> <p>4201 E. Arkansas Avenue Denver, Colorado 80222 Phone 303-757-9011</p>	<p><b>MEMORANDUM</b></p> 
DATE: July 24, 2013	RE: 11111 / NH 66-063 Route 66 - East
TO: (Resident Engineer or Program Engineer as required by Region)	
FROM: (Project Engineer)	
SUBJECT: Contract Modification Order #6, Method of Measurement for Sediment Removal	

This change order was written to change the method of measurement for Sediment Removal from cubic yard to force account.

The plans require that sediment removal be paid on a cubic yard basis. Due to the large quantities of erosion bales and silt fence on this project, it is impractical and inefficient to measure and calculate the fractions of cubic yards at various locations. This was discussed with the Contractor who agreed to accept payment on a force account basis.

There will be no additional cost for this change order.

This change does not impact the critical path; therefore, no additional time is required.

The projected cost for this project including this change order is \$11,650,000.00 or 0.06 percent under the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$11,656,459.00	
Projected Costs to Completion	<u>\$11,650,000.00</u>	
Projected Surplus (Deficit)	\$6,459.00	0.06%

A budget action will not be required for this change. The Contractor has been directed by Form 105 to accept this change in method of measurement. A copy of the completed Form 105 is attached.

This change order was discussed with Rock Howell, Region Program Engineer and with Hamid Sullivan, Project Development Area Engineer, on July 21, 2013.

## Change Basis of Payment (From CY to FA)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>		Project No.: NH 66-063		Project Code (SA#): 11111	
		Location: Route 66 - East			
		Date: July 4, 2013		Project Order No.: 6	
		Contractor: Good Aim Construction Complete Address: 1455 Lost Road Aurora, CO 80011 Modification Title: Method Of Measurement for Sediment Removal			
		Estimated cost to project: <input type="checkbox"/> Increase <input type="checkbox"/> Decrease \$0.00			
		Total additional days allowed to complete work: 0		Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Your Contract is hereby modified to change the method of measurement for sediment removal from cubic yard to force account.

The items affected by this change are as follows:

ITEM DESCRIPTION	UNIT	PREVIOUS QUANTITY	ADDED QUANTITY	REV. PLAN QUANTITY	UNIT PRICE	INCR. COST TO PROJECT
<u>DELETE:</u>						
250 Sediment Removal	CY	2,000	(2,000)	0	\$10.00	(\$20,000.00)
<u>ADD:</u>						
900 Sediment Removal	FA	0	20,000	20,000	\$1.00	\$20,000.00
TOTAL ESTIMATED INCREASED COST TO PROJECT						\$0.00

This change does not impact the critical path; therefore, no additional time is required.

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.

REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL		REQUIRED FOR ALL CHANGE ORDERS	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
OPTIONAL		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02



## Administrative Settlement of Claim

## MEMORANDUM

## DEPARTMENT OF TRANSPORTATION

4201 E. Arkansas Avenue  
Denver, Colorado 80222  
Phone 303-757-9011



DATE: October 25, 2013

Re: 11111/NH 66-066  
Route 66-South

TO: (Resident Engineer or Program Engineer per Region requirements)

FROM: (Project Engineer)

SUBJECT: Contract Modification Order #11, Administrative Claim Settlement

This change order was written to settle a claim brought by the Contractor for delays, disruptions, and recoup of liquidated damages. The Contractor initially requested \$450,000 for delays and disruptions caused by right-of-way acquisition, utility relocation, design changes, and Prebbles mouse trapping. In addition, in the last stages of the project, the Contractor incurred \$70,000 of the liquidated damages they feel were beyond their control. Without admitting liability or fault, CDOT has agreed to an administrative settlement in order to avoid additional costs regarding this claim. As agreed to by the parties involved, a lump sum payment of \$50,000 will be made to the Contractor on the final estimate for the delays and disruption portion of the claim. In addition, CDOT will amend time charges to reflect no liquidated damages. Complete details of this claim will be maintained in the claim package of the project records.

The projected cost for this project including this change order is \$11,447,082.96 or 1.5 percent under the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$11,625,259.00	
Projected Costs to Completion	<u>\$11,447,082.96</u>	
Projected Surplus (Deficit)	\$178,176.04	(1.5%)

This administrative settlement was recommended and approved by Gene Overseer, Chief Engineer, on September 20, 2013. Concurrence was obtained from Brent Ripperton, Region Program Engineer, and from Jess Coolguy, Region Transportation Director, on September 20, 2013. This change order was discussed with Jimmy Cero, Project Development Area Engineer, on September 5, 2013. FHWA pre-approval is not required for this change order, because the total cost is less than \$250,000.00.

A budget action will not be required as a result of this change order.

## Administrative Settlement of Claim

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-066		Project Code (SA#): 11111	
	Location: Route 66-South			
	Date: October 25, 2013		Project Order No.: 11	
	Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$50,000.00			
Contractor: Good Aim Construction Inc.		Total additional days allowed to complete work: 0		Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Complete Address: 666 Lost Road Aurora, CO 80011				
Modification Title: Administrative Claim Settlement				

This change order was written to settle a claim brought by the Contractor for delays, disruptions, and recoup of liquidated damages. CDOT has agreed to an administrative settlement as follows:

A lump sum payment of \$50,000.00 will be made to the Contractor on the final estimate for the delays and disruption portion of the claim. In addition, CDOT will amend time charges to reflect no liquidated damages.

The items affected by this change are listed below:


<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>PREVIOUS QUANTITY</u>	<u>ADDED QUANTITY</u>	<u>REV. PLAN QUANTITY</u>	<u>UNIT PRICE</u>	<u>INCR. COST TO PROJECT</u>
<u>ADD:</u>						
900 Claim Settlement	LS	0	1	1	\$50,000.00	<u>\$50,000.00</u>
TOTAL ESTIMATED INCREASED COST TO PROJECT						\$50,000.00

By signing below, the Contractor accepts this change as full and final settlement of this claim.

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.			
<b>REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL</b>		<b>REQUIRED FOR ALL CHANGE ORDERS</b>	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
Approved by Region Transportation Director:	Date:	Approved by Resident Engineer:	Date:
		<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02

## Design Error (Incorrect Pipe Size)

<b>MEMORANDUM</b>										
<b>DEPARTMENT OF TRANSPORTATION</b>  4201 E. Arkansas Avenue Denver, Colorado 80222 Phone 303-757-9011										
DATE: August 31, 2013	RE: 11111 / NH 66-063 Route 66 - East									
TO: (Resident Engineer or Program Engineer as per Region requirements)										
FROM: (Project Engineer)										
SUBJECT: Contract Modification Order #9, Correction of Design Error										
<p>This change order was written to correct a design error. After a 24-inch culvert had been installed at Station 66+50 right, the owner of the water rights carried by this culvert contacted the Project Engineer and stated that the culvert was inadequate to handle the required flow. Investigation revealed that the upstream culvert was a 30-inch corrugated metal pipe, although shown on the plans as a 24-inch pipe.</p> <p>The basis of payment will be at the negotiated unit price of \$40.00/linear foot. This is reasonable when compared to the average bid price of \$41.00/linear foot from the <i>2000 Cost Data Book</i>. Payment for removal of the previously placed 24-inch culvert will be at the unit bid price for removal of culvert.</p> <p>This change does not impact the critical path; therefore, no additional time is required.</p> <p>The projected cost for this project including this change order is \$1,650,000.00 or 0.4 percent under the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:</p> <table border="0" style="width: 100%;"><tr><td style="width: 40%;">Current Project Budget</td><td style="width: 20%; text-align: right;">\$1,656,459.00</td><td style="width: 40%;"></td></tr><tr><td>Projected Costs to Completion</td><td style="text-align: right;"><u>\$1,650,000.00</u></td><td></td></tr><tr><td>Projected Surplus (Deficit)</td><td style="text-align: right;">\$6,459.00</td><td style="text-align: right;">0.4%</td></tr></table> <p>A budget action will not be required for this change. The Contractor has been directed by Form 105 to begin this work. A copy of the completed Form 105 is attached.</p> <p>This change order was discussed with Rock Howell, Region Program Engineer and with Gary Ward, Project Development Area Engineer, on July 21, 2013.</p>		Current Project Budget	\$1,656,459.00		Projected Costs to Completion	<u>\$1,650,000.00</u>		Projected Surplus (Deficit)	\$6,459.00	0.4%
Current Project Budget	\$1,656,459.00									
Projected Costs to Completion	<u>\$1,650,000.00</u>									
Projected Surplus (Deficit)	\$6,459.00	0.4%								



## Design Error (Incorrect Pipe Size)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-063		Project Code (SA#): 11111	
	Location: Route 66 - East			
	Date: August 21, 2013		Project Order No.: 9	
	Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$2,760.00			
Contractor: Good Aim Construction		Total additional days allowed to complete work: 0		Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Complete Address: 1455 Lost Road Aurora, CO 80011				
Modification Title: Design Error Correction for Culvert				

Your Contract is hereby modified to include the correction of a design error at Station 64+50 right.

The work will consist of removing the previously placed 24-inch culvert and installing a 30-inch culvert. All work will be performed in accordance with the Contract Specifications.

The items affected by this change are as follows:

<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>PREVIOUS QUANTITY</u>	<u>ADDED QUANTITY</u>	<u>REV. PLAN QUANTITY</u>	<u>UNIT PRICE</u>	<u>INCR. COST TO PROJECT</u>
<u>INCREASE:</u>						
202 Removal of Culvert	LF	305	60	365	\$6.00	\$360.00
<u>ADD:</u>						
617 30-Inch Culvert Pipe	LF	0	60	60	\$40.00	<u>\$2,400.00</u>
TOTAL ESTIMATED INCREASED COST TO PROJECT						\$2,760.00


This work does not impact the critical path; therefore, no additional time is required.

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.

REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL		REQUIRED FOR ALL CHANGE ORDERS	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
OPTIONAL		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02

## Urgent Work (Mudslide / Payment of Repair)

<p><b>DEPARTMENT OF TRANSPORTATION</b></p> <p>4201 E. Arkansas Avenue Denver, Colorado 80222 Phone 303-757-9011</p>	<p><b>MEMORANDUM</b></p> 
DATE: September 30, 2013	RE: 11111 / NH 66-063 Route 66 - East
TO: (Resident Engineer or Program Engineer as per Region requirements)	
FROM: (Project Engineer)	
SUBJECT: Contract Modification Order #10, Mudslide Repair and Stabilization	

Heavy rains on the night of September 27, 2013 caused a mudslide between Station 72+00 and Station 74+00 right. This change order provides for the performance of all work necessary to repair and stabilize the cut slope and roadway damaged by the slide.

The work will include unclassified excavation, rounding of the cut slope, replacement of a Class I sign, removal and replacement of damaged concrete pavement, and roadway sweeping.

Payment for unclassified excavation will be at the negotiated unit price of \$10.00/cubic yard for approximately 2000 cubic yards. This is reasonable when compared to the average bid price of \$14.00/cubic yard for similar quantities in the *2000 Cost Data Book*. Rounding of the cut slope will be included in the price of unclassified excavation. Payment for replacement of the Class I Sign will be at the unit bid price for Removal of Ground Sign, Sign Panel Class I, and Steel Sign Post (2 inch round). Payment for removal and replacement of the concrete pavement will be at the negotiated unit price of \$36.00/square yard. This is reasonable when compared to the average bid price for removal of concrete pavement from the *2000 Cost Data Book* plus the unit bid price for concrete pavement. Roadway sweeping will be paid at the negotiated price of \$45.00/hour. This is reasonable as shown on the attached force account analysis.

This change will delay a construction phasing switch by three working days. Therefore three working days of additional time will be required. The Contractor will be compensated \$1600.00/lump sum for additional overhead. This includes additional costs for Superintendent, trailer rental, phones, gas, fax machine, drinking water, and other miscellaneous items as listed on the attached justification from the Contractor.

The projected cost for this project including this change order is \$1,650,000.00 or 0.4 percent under the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$1,656,459.00	
Projected Costs to Completion	<u>\$1,650,000.00</u>	
Projected Surplus (Deficit)	\$6,459.00	0.4%

A budget action will not be required for this change. The Contractor has been directed by Form 105 to begin this work. A copy of the completed Form 105 is attached.

This change order was discussed with Rock Howell, Region Program Engineer and with Gary Ward, Project Development Area Engineer, on July 21, 2013.

## Urgent Work (Mudslide / Payment of Repair)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-066		Project Code (SA#): 11111	
	Location: Route 66-South			
	Date: September 30, 2013		Project Order No.: 10	
	Contractor: Good Aim Construction			
Complete Address: 14555 Lost Road Aurora, CO 80011		Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease \$30,142.00		
Modification Title: Mudslide Repair and Stabilization		Total additional days allowed to complete work: 3		Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Your Contract is hereby modified to include work to repair the cut slope and roadway damaged by the mudslide on September 27, 2013, between Station 72+00 and Station 74+00 right.

The work will include unclassified excavation, rounding of the cut slope, replacement of a Class I sign, removal and replacement of damaged concrete pavement, and roadway sweeping. Rounding of the cut slope will be included in the price of unclassified excavation.

Three working days will be added for this work.

The items affected by this change order are as follows:


ITEM DESCRIPTION	UNIT	PREVIOUS QUANTITY	ADDED QUANTITY	REV. PLAN QUANTITY	UNIT PRICE	INCR. COST TO PROJECT
<u>ADD:</u>						
203 Unclassified Excavation (CIP)	CY	0	2000	2000	\$10.00	\$20,000.00
900 Mechanical Broom	HR	0	4	4	\$45.00	\$180.00
900 Remove and Replace Concrete	SY	0	225	225	\$36.00	\$8,100.00
900 Additional Overhead	LS	0	1	1	\$1,600.00	\$1,600.00
<u>INCREASE:</u>						
202 Removal of Ground Sign	EA	25	1	26	\$50.00	\$50.00
614 Sign Post (2 inch round)	LF	100	12	112	\$9.00	\$108.00
614 Sign Panel (Class I)	SF	350	8	358	\$13.00	\$104.00
TOTAL ESTIMATED INCREASED COST TO PROJECT						\$30,142.00

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.

REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL		REQUIRED FOR ALL CHANGE ORDERS	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
OPTIONAL		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02

## Change Fence (ROW Agreement)

<b>DEPARTMENT OF TRANSPORTATION</b>  4201 E. Arkansas Avenue Denver, Colorado 80222 Phone 303-757-9011	<b>MEMORANDUM</b>  
DATE: October 16, 2013	RE: 11111 / NH 66-063 Route 66 - East
TO: (Resident Engineer or Program Engineer as per Region requirements)	
FROM: (Project Engineer)	
SUBJECT: Contract Modification Order #11, Right-of-Way Agreement-Fence Change	

The Right-of-Way Agreement with the owners of Parcel 46 required that Fence Combination Wire be placed between Right-of-Way Point 165 and Right-of-Way Point 166. The plans called for Fence Barbed Wire to be placed in this location. This change order authorizes the Contractor to install Fence Combination Wire instead of Barbed Wire.

Payment for Fence Combination Wire will be at the negotiated price of \$6.00/linear foot for 500 linear feet. This is reasonable when compared to the average bid price of \$5.90/linear foot from the 2000 *Cost Data Book* for similar quantities.

This change does not impact the critical path; therefore no additional time is required.

The projected cost for this project including this change order is \$1,650,000.00 or 0.4 percent under the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$1,656,459.00	
Projected Costs to Completion	<u>\$1,650,000.00</u>	
Projected Surplus (Deficit)	\$6,459.00	0.4%

A budget action will not be required for this change.

The Contractor has been directed by Form 105 to begin this work. A copy of the completed Form 105 is attached.

This change order was discussed with Rock Howell, Region Program Engineer and with Kevin McGhee, Project Development Area Engineer, on September 30, 2013.

## Change Fence (ROW Agreement)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-066		Project Code (SA#): 11111	
	Location: Route 66-South			
	Date: September 30, 2013		Project Order No.: 11	
	Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$250.00			
Contractor: Good Aim Construction		Total additional days allowed to complete work: 0		Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Complete Address: 14555 Lost Road    Aurora, CO    80011				
Modification Title: ROW Agreement-Fence Change				

Your Contract is hereby modified to include Fence Combination Wire between Right-of-Way Point 165 and Right-of-Way Point 166.

The Contractor's signature below indicates acceptance of full settlement for the work described, both direct and indirect costs. Any claims for additional impact costs associated with this change will not be considered.

No additional time will be allowed for this work.

The items affected by this change order are as follows:


<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>PREVIOUS QUANTITY</u>	<u>ADDED QUANTITY</u>	<u>REV. PLAN QUANTITY</u>	<u>UNIT PRICE</u>	<u>INCR. COST TO PROJECT</u>
<u>ADD:</u>						
607 Fence Comb Wire w/ Metal Posts	LF	0	500	500	\$6.00	\$3,000.00
<u>DECREASE:</u>						
607 Fence Barbed Wire w/ Metal Posts	LF	5000	-500	4500	\$5.50	(\$2,750.00)
TOTAL ESTIMATED INCREASED COST TO PROJECT						\$250.00

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.

REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL		REQUIRED FOR ALL CHANGE ORDERS	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
Approved by Region Transportation Director:	Date:	Approved by Resident Engineer:	Date:
		<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:    Date:	

CDOT Form 90 07/02

## Utility Work (Utility Invoices Contractor)

<p><b>DEPARTMENT OF TRANSPORTATION</b></p> <p>4201 E. Arkansas Avenue Denver, Colorado 80222 Phone 303-757-9011</p>	<p><b>MEMORANDUM</b></p> 
DATE: October 16, 2013	RE: 11111 / NH 66-063 Route 66 - East
TO: (Resident Engineer or Program Engineer as per Region requirements)	
FROM: (Project Resident Engineer)	
SUBJECT: Contract Modification Order #12, Relocate 24-inch Water Line (Utility Adjusted)	

This change order authorizes the Contractor to pay the City of Ft. Morgan to relocate their 24-inch water line. The line is located between Station 486+15 and Station 584+00; 9.5 feet left of the proposed centerline, and 2 feet above finished grade. CDOT was unaware of this line until the City pointed out the location at the Preconstruction Conference. The Region Utilities Engineer was contacted, and she determined that the work is eligible for reimbursement.

The City has provided an estimate for this work of \$490,000. A copy of this estimate is attached.

Fifteen days of additional time will be required for this work. It will take the City five days to obtain the materials and ten days to install and test the water line.

Payment will be made upon the basis of certified invoice from the Utility to the Contractor. The Utility invoice will be the actual direct and indirect cost of performing the work in accordance with established accounting procedures. Administrative compensation will be permitted per subsection 109.04 of the *Standard Specifications*.

The projected cost for this project including this change order is \$5,355,218.00 or 10.1 percent over the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$4,865,218.00	
Projected Costs to Completion	<u>\$5,355,218.00</u>	
Projected Surplus (Deficit)	(\$490,000.00)	10.1%

Need to submit Form 1186.

In order not to delay the project, the Contractor has been directed by Form 105 to begin this work. A copy of the completed Form 105 is attached.

This change order was discussed with Rock Howell, Region Program Engineer and with Don Radel, Project Development Area Engineer, on September 30, 2013.



## Utility Work (Utility Invoices Contractor)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-066	Project Code (SA#): 11111
	Location: Route 66-South	
	Date: October 16, 2013	Project Order No.: 12
	Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$490,000.00	
Contractor: Good Aim Construction	Total additional days allowed to complete work: 15	
Complete Address: 14555 Lost Road    Aurora, CO    80011	Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Modification Title: Relocate 24-inch Water Line (Utility Adjusted)		

Your Contract is hereby modified to include the relocation of the 24-inch water line between Station 486+15 and Station 584+00. The City of Ft. Morgan will perform this work. The City will submit certified invoices to the Contractor for payment. These invoices shall be the actual direct and related indirect costs of performing the work in accordance with established accounting procedures. CDOT will reimburse the Contractor by force account for the certified invoices plus administrative loading per subsection 109.04 of the *Standard Specifications*.

The Contractor will provide additional bonding to cover the cost of this work at no cost to the project.

Fifteen days will be added for this work.

The items affected by this change order are as follows:


<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>PREVIOUS QUANTITY</u>	<u>ADDED QUANTITY</u>	<u>REV. PLAN QUANTITY</u>	<u>UNIT PRICE</u>	<u>INCR. COST TO PROJECT</u>
<u>ADD:</u>						
900 Relocate Water Line	FA	0	490,000	490,000	\$1.00	\$490,000.00
TOTAL ESTIMATED INCREASED COST TO PROJECT						\$490,000.00

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.

REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL		REQUIRED FOR ALL CHANGE ORDERS	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
OPTIONAL		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
			Date:

CDOT Form 90 07/02

## Utility Work (Contractor Performs Work)

<p><b>DEPARTMENT OF TRANSPORTATION</b></p> <p>4201 E. Arkansas Avenue Denver, Colorado 80222 Phone 303-757-9011</p>	<p><b>MEMORANDUM</b></p> 
DATE: October 16, 2013	RE: 11111 / NH 66-063 Route 66 - East
TO: (Resident Engineer or Program Engineer as per Region requirements)	
FROM: (Project Resident Engineer)	
SUBJECT: Contract Modification Order #12, Relocate 24-inch Water Line (Contractor Adjusted)	

This change order authorizes the Contractor to relocate a 24-inch water line owned by the City of Ft. Morgan. The line is located between Station 486+15 and Station 584+00; 9.5 feet left of the proposed centerline, and 2 feet above finished grade. CDOT was unaware of this line until the City pointed out the location at the Preconstruction Conference. The Region Utilities Engineer has determined that the work is eligible for reimbursement.

The Region Utilities Engineer has also obtained a Contractor-Adjusted Utility Agreement with the City of Ft. Morgan to cover this work.

Payment will be made based on the negotiated unit price of \$50.00/linear foot for approximately 9785 linear feet. This is reasonable when compared to the average bid price of \$55.00/linear foot from the 2000 *Cost Data Book* for similar quantities.

Fifteen days of additional time will be required for this work. It will take the Contractor five days to obtain the materials and ten days to install and test the water line. The Contractor will be compensated \$15,000.00/lump sum for additional overhead. This includes additional costs for Superintendent, trailer rental, phones, gas, fax machine, drinking water, and other miscellaneous items as listed on the attached justification from the Contractor.

The projected cost for this project including this change order is \$5,065,218.00 or 4.1 percent over the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$4,865,218.00	
Projected Costs to Completion	<u>\$5,065,218.00</u>	
Projected Surplus (Deficit)	(\$200,000.00)	4.1%

Need to submit Form 1186.

In order not to delay the project, the Contractor has been directed by Form 105 to begin this work. A copy of the completed Form 105 is attached.

This change order was discussed with Rock Howell, Region Program Engineer and with Don Radel, Project Development Area Engineer, on September 30, 2013.



## Utility Work (Contractor Performs Work)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-066	Project Code (SA#): 11111
	Location: Route 66-South	
	Date: October 16, 2013	Project Order No.: 12
	Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$504,250.00	
Contractor: Good Aim Construction	Total additional days allowed to complete work: 15	
Complete Address: 14555 Lost Road    Aurora, CO    80011	Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Modification Title: Relocate 24-inch Water Line (Contractor Adjusted)		

Your Contract is hereby modified to include the relocation of the 24-inch water line between Station 486+15 and Station 584+00. The Contractor will provide additional bonding to cover the cost of this work at no cost to the project.

Fifteen days will be added for this work. The Contractor will be compensated \$15,000.00 lump sum for additional overhead. This includes additional costs for Superintendent, trailer rental, phones, gas, fax machine, drinking water, and other miscellaneous items as listed on the attached justification from the Contractor.

The items affected by this change order are as follows:

<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>PREVIOUS QUANTITY</u>	<u>ADDED QUANTITY</u>	<u>REV. PLAN QUANTITY</u>	<u>UNIT PRICE</u>	<u>INCR. COST TO PROJECT</u>
<u>ADD:</u>						
900 Relocate Water Line	LF	0	9785	9785	\$50.00	\$489,250.00
900 Additional Overhead	LS	0	1	1	\$15,000.00	\$15,000.00
TOTAL ESTIMATED INCREASED COST TO PROJECT						\$504,250.00

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.

REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL		REQUIRED FOR ALL CHANGE ORDERS	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
OPTIONAL		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
			Date:

CDOT Form 90 07/02

## Traffic Control Plan Change

## MEMORANDUM

## DEPARTMENT OF TRANSPORTATION

4201 E. Arkansas Avenue  
Denver, Colorado 80222  
Phone 303-757-9011



DATE: July 25, 2013

Re: 11111/NH 66-066  
Route 66-South

TO: (Resident Engineer or Program Engineer as per Region requirements)

FROM: (Project Engineer)

SUBJECT: Contract Modification Order #14, Traffic Control Plan Change

This change order is written to authorize a major revision to the Traffic Control Plan.

The Contractor has proposed constructing a temporary box structure to allow haul trucks to pass under the roadway from the cut area to the fill area. Specifications for this project limit the time the Contractor may interfere with traffic between the hours of 8:30 AM and 4:00 PM. The boxes will reduce impacts to the traveling public and allow the Contractor to work longer hours.

The structure will be erected at Station 582+00, 40 feet left of the existing traffic alignment. After backfilling, a detour will be constructed over this box. The existing pavement and embankment at the box outlet will be excavated to allow the trucks to pass through. Traffic will be maintained on this added detour for the duration of Phase I. Upon completion of the hauling operation, the structure will be removed and the excavation will be backfilled in accordance with the *Project Special Provisions*.

A licensed engineer in the State of Colorado designed the structure for the Contractor.

The proposed alignment and traffic control plan changes have been reviewed and are acceptable, as revised, for the posted speed of this road. The changes have been attached.

All costs associated with this change shall be the responsibility of the Contractor.

There will be no additional time or cost due to this change.

The projected final cost for this project, including this change order, is \$13,445,007.38 or 0.3 percent over the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$13,400,000.00	
Projected Costs to Completion	<u>\$13,445,007.38</u>	
Projected Surplus (Deficit)	(\$45,007.38)	(0.3%)

The Contractor will not begin work on this change until receiving an approved Form 90.

This change order was discussed with Abby Butment, Staff Bridge Engineer on July 2, 2013. This change order was discussed with the Jimmy Cero, Project Development Area Engineer on July 4, 2013. Concurrence was obtained from Rob Crawford, Project Manager, Matt Bemelen, Region Traffic Engineer, and John Cheney, Region Program Engineer on July 2, 2013.

## Traffic Control Plan Change

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>		Project No.: NH 66-066		Project Code (SA#): 11111	
		Location: Route 66-South			
		Date: July 25, 2013		Project Order No.: 14	
		Contractor: Good Aim Construction Complete Address: 14555 Lost Road Aurora, CO 80011 Modification Title: Traffic Control Plan Change			
		Estimated cost to project: <input type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$0.00 Total additional days allowed to complete work: 0			
				Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

You are hereby authorized to make a major revision in the Traffic Control Plan for this project. The Traffic Control Plan as revised will be in accordance with your approved Method of Handling Traffic (attached). The revised Traffic Control Plan will be implemented to accommodate a more efficient method of hauling excavated material from the cut area to the fill area. Instead of hauling across the road, the Contractor will be permitted to construct a temporary structure and associated detour to facilitate hauling under the road.

The structure will be constructed at Station 582+00, 40 feet left of existing centerline. After backfilling, a detour shall be constructed over this box. The existing pavement and embankment at the box outlet will be excavated to allow the trucks to pass through. Upon completion of the hauling operation, the Contractor shall backfill the excavation in accordance with the *Project Special Provisions*.

A licensed engineer in the State of Colorado shall design the structure for the Contractor.

No additional time will be allowed for this change. All costs associated with this change are the responsibility of the Contractor.

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.			
<b>REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL</b>		<b>REQUIRED FOR ALL CHANGE ORDERS</b>	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
Approved by Region Transportation Director:	Date:	Approved by Resident Engineer:	Date:
		<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02

## Price Reduction (Accept Out of Spec HBP)

## MEMORANDUM

## DEPARTMENT OF TRANSPORTATION

4201 E. Arkansas Avenue  
 Denver, Colorado 80222  
 Phone 303-757-9011



DATE: October 30, 2013

RE: 11111 / NH 66-063  
 Route 66 - East

TO: (Resident Engineer or Program Engineer as per Region requirements)

FROM: (Project Engineer)

SUBJECT: Contract Modification Order #10, Acceptance and Price Reduction of Hot Bituminous Pavement

This change order authorizes the Contractor to leave 1800 tons of Hot Bituminous Pavement placed between Station 40+00 and Station 51+00 right in place at a price reduction. A price reduction equal to 28.5 percent of the unit bid price will be applied to this quantity of Hot Bituminous Pavement.

The composite Pay Factor for density, gradation, and asphalt content was 0.90. This is within the specification requirements of subsection 105.03. The Lottman test result representing this quantity of Hot Bituminous Pavement was a 55, which is less than the minimum requirement of 70. The price reduction for the failing Lottman, as calculated in accordance with subsection 105.03, is 28.5 percent.

Normally, a 28.5 percent price reduction would require the removal and replacement of the out of specification material. With the concurrence of the Region Materials Engineer, CDOT has decided to allow the material to remain in place at the calculated price reduction for the following reasons:

- This Hot Bituminous Pavement is part of a detour transition alignment that will be removed as part of a future corridor project.
- The composite pay factor for density, gradation, and asphalt content was acceptable.
- The Hot Bituminous Pavement has been in place for three weeks and has been subjected to high traffic volumes. No pavement degradation is evident.

No additional time is required for this change.

The projected cost for this project including this change order is \$1,650,000.00 or 0.4 percent under the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$1,656,459.00	
Projected Costs to Completion	<u>\$1,650,000.00</u>	
Projected Surplus (Deficit)	\$6,459.00	0.4%

A budget action will not be required for this change.

This change order was discussed with Rock Howell, Region Program Engineer and with Gary LaForce, Project Development Area Engineer, on October 25, 2013.

## Price Reduction (Accept Out of Spec HBP)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-066		Project Code (SA#): 11111	
	Location: Route 66-South			
	Date: October 30, 2013		Project Order No.: 10	
	Estimated cost to project: <input type="checkbox"/> Increase <input checked="" type="checkbox"/> Decrease \$20,520.00			
Contractor: Good Aim Construction		Total additional days allowed to complete work: 0		Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Complete Address: 14555 Lost Road Aurora, CO 80011				
Modification Title: Acceptance and Price Reduction for Hot Bituminous Pavement				

Your contract is hereby modified to include a 28.5 percent price reduction for 1800 tons of Hot Bituminous Pavement placed between Station 40+00 and Station 51+00 right. A 28.5 percent price reduction is equivalent to a price reduction of \$11.40/ton. CDOT will allow the Hot Bituminous Pavement to remain in place.

No time will be added for this change.

The items affected by this change order are as follows:

<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>PREVIOUS QUANTITY</u>	<u>ADDED QUANTITY</u>	<u>REV. PLAN QUANTITY</u>	<u>UNIT PRICE</u>	<u>INCR. COST TO PROJECT</u>
<u>ADD:</u>						
900 Price Reduction for HBP	TON	0	-1800	-1800	\$11.40	(\$20,520.00)
TOTAL ESTIMATED INCREASED COST TO PROJECT						(\$20,520.00)

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.

REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL		REQUIRED FOR ALL CHANGE ORDERS	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
OPTIONAL		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02

## Purchase of Materials (Unused Seed)

## MEMORANDUM

## DEPARTMENT OF TRANSPORTATION

4201 E. Arkansas Avenue  
Denver, Colorado 80222  
Phone 303-757-9011



DATE: November 5, 2013

RE: 11111 / NH 66-063  
Route 66 - East

TO: (Resident Engineer or Program Engineer as per Region requirements)

FROM: (Project Engineer)

SUBJECT: Contract Modification Order #16, Purchase of Excess Material

This change order provides for the purchase of Wildflower Seed Mix from the Contractor. Due to a change in the amount of seeding on the project, the Contractor had an excess of 80 pounds of the mix. The Contractor indicated that the supplier would not restock the mix because the germination date had passed and it was of no use to them. The Contractor also had no use for the material. The Region Maintenance Section was contacted and indicated that there was no use for the mix and they didn't want it in the storeroom.

The basis of payment will be the cost of the material plus a handling charge as justified by the attached invoice.

No additional time is required for this change.

The projected cost for this project including this change order is \$1,650,000.00 or 0.4 percent under the current allotment as shown on the attached Project Financial Statement. The budget summary is as follows:

Current Project Budget	\$1,656,459.00	
Projected Costs to Completion	<u>\$1,650,000.00</u>	
Projected Surplus (Deficit)	\$6,459.00	0.4%

A budget action will not be required for this change.

This change order was discussed with Rock Howell, Region Program Engineer and with Hal Ghavan, Project Development Area Engineer, on November 3, 2013.

## Purchase of Materials (Unused Seed)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-066		Project Code (SA#): 11111	
	Location: Route 66-South			
	Date: November 5, 2013		Project Order No.: 16	
	Estimated cost to project: <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease    \$1650.00			
Contractor: Good Aim Construction		Total additional days allowed to complete work: 0		Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Complete Address: 14555 Lost Road    Aurora, CO    80011				
Modification Title: Purchase of Excess Materials				

Your Contract is hereby modified to include a payment for excess Wildflower Seed Mix as shown below:

Material Cost    80 pounds x \$20.00/pound    = \$1,600.00  
 Handling Cost                                        = \$    50.00  
    \$1,650.00

No additional time will be added for this work.

The items affected by this change order are as follows:

ITEM DESCRIPTION	UNIT	PREVIOUS QUANTITY	ADDED QUANTITY	REV. PLAN QUANTITY	UNIT PRICE	INCR. COST TO PROJECT
<u>ADD:</u>						
900 Wildflower Seed Purchase	LS	0	1	1	\$1,650.00	\$1,650.00
TOTAL ESTIMATED INCREASED COST TO PROJECT						\$1,650.00

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.

REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL		REQUIRED FOR ALL CHANGE ORDERS	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
OPTIONAL		Contractor Representative:	Date:
		Approved by Resident Engineer:	Date:
Approved by Region Transportation Director:	Date:	<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02



## VECP Change Type of Fence (No Form 90)

## MEMORANDUM

## DEPARTMENT OF TRANSPORTATION

4201 E. Arkansas Avenue  
Denver, Colorado 80222  
Phone 303-757-9011



DATE: May 25, 2013

Re: 11111/NH 66-066  
Route 66-South

TO: (Resident Engineer or Program Engineer as per Region requirements)

FROM: (Project Engineer)

SUBJECT: Contract Modification Order #3, Sound Fence Value Engineering

This change order authorizes a Value Engineering Proposal to install Fence Carsonite (Sound Barrier)(60 inch) in lieu of Fence Metal (Sound Barrier)(60 inch) between Station 400+00 and Station 405+75 right.

The Value Engineering Proposal has been accepted by the Project Engineer based on the following:

- The change will produce a savings to the Department of \$36,869.00.
- The change will provide a product with equivalent quality and desired appearance.
- The materials used are recycled rubber and plastic. The fence will be easy to maintain and environmentally friendly.

The basis of payment is the negotiated price of \$126.76/linear foot for 575 feet of fence. The Contractor has submitted a cost analysis, which has been reviewed and approved by the Project Engineer. The Value Engineering Proposal and cost analysis are attached.

This change will not impact the critical path of the project; therefore, no additional time will be added.

The projected final cost for this project, including this change order, is \$12,193,128.79 or 0.5 percent under the current allotment as shown on the attached Project Financial Statement. No budget action is required. The budget summary is as follows:

Current Project Budget	\$12,254,290.43	
Projected Costs to Completion	<u>\$12,193,128.79</u>	
Projected Surplus (Deficit)	\$61,161.64	(0.5%)

This work has been authorized to proceed in order not to delay the project.

This change order was discussed with the Jimmy Cero, Project Development Area Engineer on July 4, 2013. Concurrence was obtained from Rob Crawford, Project Manager and John Cheney, Region Program Engineer on July 2, 2013.

## VECP Change Type of Fence (No Form 90)

<b>COLORADO DEPARTMENT OF TRANSPORTATION CONTRACT MODIFICATION ORDER</b>	Project No.: NH 66-063	Project Code (SA#): 11111
	Location: Route 66 - East	
	Date: May 25, 2013	Project Order No.: 3
	Estimated cost to project: <input type="checkbox"/> Increase <input checked="" type="checkbox"/> Decrease (\$36,869.00)	
Contractor: Good Aim Construction	Total additional days allowed to complete work: 0	
Complete Address: 1455 Lost Road Aurora, CO 80011	Federal Oversight? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Modification Title: Sound Fence Value Engineering		

Your Contract is hereby modified to change the Fence Metal (Sound Barrier)(60 inch) to Fence Carsonite (Sound Barrier)(60 inch) in accordance with your Value Engineering Proposal. This change affects the materials only. All other specifications pertaining to the sound barrier will remain the same.

The items affected by this change are as follows:


<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>PREVIOUS QUANTITY</u>	<u>ADDED QUANTITY</u>	<u>REV. PLAN QUANTITY</u>	<u>UNIT PRICE</u>	<u>INCR. COST TO PROJECT</u>
<b>DELETE:</b>						
607 Fence Metal(Sound Barrier)(60 inch)	LF	575	(575)	0	\$255.00	(\$146,625.00)
<b>ADD:</b>						
900 Fence Carsonite(Sound Barrier)(60 inch)	LF	0	575	575	\$126.76	\$72,887.00
900 Value Engineering Incentive	LS	0	1	1	\$36,869.00	\$36,869.00
TOTAL ESTIMATED INCREASED COST TO PROJECT						(\$36,869.00)

This change does not impact the critical path; therefore, no additional time is required.

The Contractor accepts this Change Order for work to be performed and prices on which payment is to be based.			
<b>REQUIRED IN ACCORDANCE WITH INSTRUCTIONS IN THE CDOT CONSTRUCTION MANUAL</b>		<b>REQUIRED FOR ALL CHANGE ORDERS</b>	
Approved by FHWA Operations Engineer:	Date:	Authorized by Project Engineer:	Date:
<b>OPTIONAL</b>		Contractor Representative:	Date:
Approved by Region Transportation Director:	Date:	Approved by Resident Engineer:	Date:
		<input type="checkbox"/> Participating <input type="checkbox"/> Non-participating <input type="checkbox"/> Participation as noted Approved Funding by Region Program Engineer:	
		Date:	

CDOT Form 90 07/02

## MCRs (CMO 01)

<b>MEMORANDUM</b>	
<b>DEPARTMENT OF TRANSPORTATION</b>	
<div style="display: flex; justify-content: space-between;"><div>4201 E. Arkansas Avenue Denver, Colorado 80222 Phone 303-757-9011</div><div></div></div>	
DATE:	December 4, 2013
	RE: 11111 / NH 66-063 Route 66 - East
TO:	(Resident Engineer or Program Engineer as per Region requirements)
FROM:	(Project Engineer)
SUBJECT:	Minor Contract Revisions
<p>This change order was written to authorize the following minor contract revisions:</p>	
<b><u>LINE ITEM #1) Change Order #3 - ITEM 900-70035 MUCK EXCAVATION</u></b>	
<p>This item was added to compensate the Contractor for Muck Excavation between Station 453+00 and Station 455+00 left. This muck was created by existing drainage problems and was due to no fault of the Contractor. The excavated area is approximately 200 feet by 50 feet by six feet deep.</p>	
<p>Due to the difficulty in estimating the cost of this work, the work was performed by force account. The total estimated cost of this item is \$9,000.00. This item is participating.</p>	
<p>This item was performed concurrently with other work and did not require additional time.</p>	
<b><u>LINE ITEM #2) Change Order #5 - ITEM 210-01200 RESET END ANCHORAGE</u></b>	
<p>Approximately 463 linear feet of guardrail was removed at Station 414+00 to provide access to a planned fill area. The existing end anchorage had to be reset at the end of the remaining guardrail run. There was no item in the plans to pay for this work.</p>	
<p>The basis of payment for this item is the negotiated price of \$522.50/each for one anchor. For similar quantities, the average bid price from the 2000 Cost Data Book varied between \$525.00/each to \$600.00/each. Therefore, the price is reasonable. The total estimated cost of this item is 1 each @ \$522.50/each or \$522.50. This item is participating.</p>	
<p>This item was performed concurrently with other work and did not require additional time.</p>	
<b><u>LINE ITEM #3) Change Order #9 - ITEM 412-12320 Portland Cement Concrete Pavement SPECIFICATION CHANGE</u></b>	
<p>This item was added to allow a change to the Portland Cement Concrete Pavement specifications. The change to utilize the most current CDOT specification regarding sawing, sealing, and tining was recommended by the Region Materials Engineer. For all Portland Cement Concrete Pavement on this project, the Contractor shall comply with the attached sawing, sealing, and tining specification.</p>	
<p>The Contractor agreed to this change at no cost to the project. This item is participating.</p>	
<p>This item was performed concurrently with other work and did not require additional time.</p>	

MCRs (CMO 01)

**Form 94 is obsolete and has been deleted.**

## Example of Simple FA Analysis Justification

## MCR Line # 14

A vertical displacement was observed in an existing MSE wall at the east abutment of the 28<sup>th</sup> St. Bridge over I-225, adjacent to a proposed detour. An investigation by Wilber Smyth of Staff Bridge and Eric Herricot of Region 8 Hydraulics determined that the wall had bowed outward due to erosion of backfill material behind the masonry face.

The contractor submitted a lump sum cost of \$15,500.00 to repair the wall. This work includes the removal of block facing, excavation of existing material, followed by the replacement of backfill material and blocks. Concrete slope and ditch paving will be placed to prevent further erosion. The contractor's lump sum price of \$15,500.00 was accepted based on the following analysis. A subcontractor will be doing the work; fringe benefits are included in the rates. Labor rates are Davis-Bacon rates for this contract, equipment rates are from the historical data in Chapter 6 of the QC Training Manual, and material costs were quoted by local suppliers (ABC Concrete and Wilson Precast).

Labor

Laborer (3)	144 hr. x \$25.00/hr.	\$3,600.00	
Operator	48 hr. x \$35.00/hr.	1,680.00	
	67% loading	<u>2,412.00</u>	
	Labor Total	\$8,817.60	\$8,817.60

Equipment

Flatbed Truck	16 hr. @ \$20/hr.	\$ 320.00	\$ 320.00
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Rental Equipment

Backhoe	6 days @ \$200/day	\$ 1,200.00	
	10% Loading	<u>120.00</u>	
	Rental Equipment Total	\$ 1,320.00	\$ 1,320.00

Materials

Concrete C1 B	14 CY @ \$250.CY	\$3,500.00	
Facing Blocks	100 each @ \$12.00	1,200.00	
	15% loading	<u>705.00</u>	
	Materials Total	\$5,405.00	<u>\$5,405.00</u>

Subtotal	\$15,862.60
Administrative loading per 109.04(e)	<u>725.88</u>

<b>Total</b>	<b>\$16,588.48</b>
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Therefore, the contractor's submitted price of \$15,500.00 is acceptable.

No additional time will be added to the contract for this work.

301115

C-51

Item	Unit	Qty	Rate	Amount	Subcontractor's Costs	Price Requested from Prime Contractor	CO AMOUNT = \$352,080
545BL C&E Excavator	30	HR					
524 C&E Loader	30	HR					
BT Foreman	30	HR					
BT Operator	30	HR					
BT Laborer	30	HR					
Structures 2002 F 250 X Cab 4x4	10	300					
BT 2007.1 Ton Quibly Chevy X Cab 4x4	30	HR					
BT 1997 Chevy X Cab 1/2 ton 4x4	30	HR					
2 20x8 Trench Boxes	10	300					
2 20x8 Trench Boxes	72	HR					
3 Height Adaptors for Trench Boxes	72	HR					
3 1/2 5 KW Generator	2	144					
1600CFM IR Compressor	20	HR					
Structures Superintendent	20	HR					
BT Foreman	20	HR					
BT Laborer	20	HR					
Structures 2002 F 250 X Cab 4x4	10	240					
BT 2007.1 Ton Quibly Chevy X Cab 4x4	20	HR					
BT 1997 Chevy X Cab 1/2 ton 4x4	20	HR					
2 20x8 Trench Boxes	48	HR					
2 20x8 Trench Boxes	48	HR					
3 Height Adaptors for Trench Boxes	48	HR					
3 1/2 5 KW Generator	2	96					
3 H P Pump	2	96					
Structures Superintendent	20	HR					
BT Foreman	20	HR					
BT Laborer	20	HR					
545BL C&E Excavator	50	HR					
524 C&E Loader	50	HR					
BT Foreman	50	HR					
BT Operator	50	HR					
BT Laborer	50	HR					
Structures 2002 F 250 X Cab 4x4	10	240					
BT 2007.1 Ton Quibly Chevy X Cab 4x4	20	HR					
BT 1997 Chevy X Cab 1/2 ton 4x4	20	HR					
2 20x8 Trench Boxes	48	HR					
2 20x8 Trench Boxes	48	HR					
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