

**INDIANA Department of Transportation****Construction Change Order and Time Extension Summary****Contract Information**

Contract No.: B -36229	Letting Date:02/20/2019
District:LAPORTE DISTRICT	AE:Beale, Cortney
PE/S:Randell, Lee	Status:Draft

**Change Order Information**

Change Order No.: 006	EWA: Y or Force Acct: N
Date Generated: 11/25/2019	Date Approved: 00/00/0000
Reason Code: ERRORS & OMISSIONS, Construct Related	
Description: B-Borrow, Undercut Backfill	

Original Contract Amount	\$ 20,538,846.45	
Current Change Order Amount	\$ 684,451.50	Percent: 3.333 %
Total Previous Approved Changes	\$ 232,082.27	Percent: 1.130 %
Total Change To-Date	\$ 916,533.77	Percent: 4.463 %
Modified Contract Amount	\$ 21,455,380.22	

**Time Extension Information**

Date Initiated 00/00/0000	Date Completed 00/00/0000
Original Contract Time	SS Completion Date 00/00/0000 or SS Calendar/Work Days 0
	SP Date 00/00/0000 or SP Days
	(SS = Standard Specification, SP = Special Provision)

**Time Element Description:**

Current Time Extension	SS Days 0 SP Days 0	SP Days Value \$ 0.00
Previous Time Approved	SS Days by AE:_____ DCE:_____ SCE:_____ DDCM:_____	
	SS Days_____	SP Days Value \$ _____
Revised Contract Time	SS Completion Date 00/00/0000 or SS Calendar/Work Days 0	
	SS Date 00/00/0000 or SP Days 0	

**INDIANA Department of Transportation**  
**Construction Change Order and Time Extension Summary**

**Review and Approval Information**

Required Approval Authority AE:\_\_\_\_\_ DCE:\_\_\_\_\_ SCE:\_\_\_\_\_ \* DDCM:\_\_\_\_\_ \*  
(\$ per Change Order) (- LE \$ 250K-) (- LE \$ 750K - ) ( -- LE \$ 2 M -- ) ( -- GT \$ 2 M -- )  
(Days per Contract) ( 50 SS days ) ( 100 SS days ) ( 200 SS Days ) ( GT 200 SS days)

Verbal Approval Required? Y / N If Y, by\_\_\_\_\_ Date Issued\_\_\_\_\_

Total Change To-Date>5%? Y / N If Y , Copy to Program Budget Manager\_\_\_\_\_

Scope/Design Recommendation Y / N If Y, Referred to Project Manager(PM) \_\_\_\_\_  
Required?

Date to PM\_\_\_\_\_ Date Returned\_\_\_\_\_

Approval Authority Concurs with PM? Y / N If Y, Concurrence by\_\_\_\_\_ Date\_\_\_\_\_

If N,Resolution: Approved \_\_\_\_\_ Disapproved \_\_\_\_\_

Resolved by\_\_\_\_\_ Date\_\_\_\_\_

LPA Signatures Required? Y / N If Y, Date to LPA \_\_\_\_\_ Date Returned \_\_\_\_\_

FHWA Signatures Required? Y / N If Y, Date to FHWA\_\_\_\_\_ Date Returned\_\_\_\_\_

\* Field Engineer Recommendation (Required for SCE or DDCM Approval)

Field Engineer \_\_\_\_\_ Date \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

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Contract: B -36229  
 Project: 0710056 - State:0710056  
 Change Order Nbr: 006  
 Change Order Description: B-Borrow, Undercut Backfill  
 Reason Code: ERRORS & OMISSIONS, Construct Related

CLN	PCN	PLN	Item Code	Unit	Unit Price	CO Qty	Comment	Amount Change
0028	0710056	0028	203-02000	CYS	14.760	3400.000	C	Amount:\$ 50,184.00
<b>Item Description:</b> EXCAVATION, COMMON								
Supplemental Description1:								
Supplemental Description2:								
0029	0710056	0029	203-02020	CYS	12.570	-450.000	C	Amount:\$ -5,656.50
<b>Item Description:</b> EXCAVATION, UNCLASSIFIED								
Supplemental Description1:								
Supplemental Description2:								
0127	0710056	0126	718-52610	CYS	44.640	-200.000	C	Amount:\$ -8,928.00
<b>Item Description:</b> AGGREGATE FOR UNDERDRAINS								
Supplemental Description1:								
Supplemental Description2:								
0257	0710056	0256	211-09194	TON	40.140	15800.000	C	Amount:\$ 634,212.00
<b>Item Description:</b> B BORROW								
Supplemental Description1: , Undercut Backfill								
Supplemental Description2:								
0262	0710056	0260	214-11796	SYS	3.050	4800.000	C	Amount:\$ 14,640.00
<b>Item Description:</b> GEOGRID TYPE IB								
Supplemental Description1:								
Supplemental Description2:								

Total Value for Change Order 006 = \$ 684,451.50

**Whereas, the Standard Specifications for this contract provides for such work to be performed, the following change is recommended.**

General or Standard Change Order Explanation

This change order represents the methods to treat existing unsuitable soil conditions beneath both existing and proposed roadways and temporary shoofly. Unsuitable soil conditions have been encountered under the existing roadways of 45th St and Calumet Ave, under the temporary shoofly, and under the proposed alignment of 45th St at the underpass. The EOR was consulted as soon as unsuitable soils were encountered. Site samples of the existing soil were obtained by DLZ and evaluated by INDOT. Results indicate an organic content of 2.5 percent and a liquid limit of 27. The contract geotechnical investigation indicates highly organic soils, greater than 50 percent, and soft or unsuitable soils with a liquid limit greater than 50 should be removed from the subgrade area within the construction limits prior to construction of the roadway. Proof rolling and direct cone penetrometer tests have shown unsuitable soils exist with half the organic content and liquid limit parameters stated within the geotechnical report. Furthermore, the geotechnical engineer of record was requested back onsite to evaluate existing soil conditions within the new alignment of 45th St between Centennial Dr and the proposed underpass. See attached plan sheets 95 and 96 showing locations and results of site testing investigation. The recommendation for the new alignment of 45th St, between STA 27+50 and 31+00, based on soil borings, existing conditions and onsite investigation is to remove at least 30 inches of unsuitable soils, and replace with layer of geofabric for separation and filtration, a layer of geogrid and 30 inches of IN-2 or similar material. Additionally, the geotechnical recommendation also states that precautions shall be taken to avoid water infiltration into the bottom of the undercut and treatment elements. In all other locations where unsuitable soils are encountered, 24 inches of the material shall be removed and replaced with coarse open graded aggregates for stabilization. Coarse open graded aggregates shall consist of either an IN-5 or IN-2 approved aggregate. Proof rolling shall be performed to identify and confirm unsuitable soil conditions, locations and limits will be verified with soil testing. Alternate aggregate materials, such as sand and dense graded aggregates, were initially used to bridge the unsuitable soil conditions at incremental depths to no avail. Coarse open graded aggregates provided the most stability. Coarse open graded aggregates will also prevent moisture from wicking to the surface having detrimental effects on the roadway or temporary railway above. Existing contract items for common excavation and unclassified excavation will be utilized to quantify the removal of unsuitable soils. Common excavation quantities will be measured within the existing roadway limits. Unclassified excavation quantities will be measured outside the existing roadway limits.

General or Standard Change Order Explanation

SHOOFLY. For construction of the temporary shoofly to support the CN rails and train traffic, it was agreed to remove 24 inches of unsuitable soils and replace with compacted coarse open graded aggregates for stabilization. The limits include the ditch north of CN and south of 45th St east and within the exiting roadway of 45th St east.

General or Standard Change Order Explanation

45th St EXISTING AND PROPOSED ROADWAY LIMITS. For construction of 45th St, east and west of Calumet Ave, within the existing roadway limits, the 24 inch removal process will be utilized in conjunction with backfill of compacted coarse open graded aggregates for stabilization. For new construction of 45th St between Centennial Village and 45th St east, per the geotechnical engineer of record, 30 inches of unsuitable soils shall be removed and replaced with a layer of geotextile fabric, a layer of geogrid, and compacted coarse open graded aggregates. Due to the recommended removal depth of 30 inches, the proposed underdrain runs between relief wells shall be installed in conjunction with the undercut operations. The relief wells shall be over excavated to install the check valves and tees. The planned underdrain shall be placed at the bottom of the undercut following placement of the geofabric and geogrid. The geofabric layer shall also be placed up the vertical faces of the undercut and wrapped outside the proposed roadway to prevent sedimentation. An estimated quantity of aggregates for underdrain will be removed from the contract quantity where undercut backfill shall be installed between STA 28+50 and 31+50.

General or Standard Change Order Explanation

CALUMET AVE EXISTING AND PROPOSED ROADWAY LIMITS. For construction of Calumet Ave within and outside the existing roadway limits, the 24 inch removal process will be utilized in conjunction with backfill of compacted coarse open graded aggregates for stabilization.

General or Standard Change Order Explanation

Under this change order two new items are being created, B Borrow for Undercut Backfill and Geogrid Type 1B. These items will be participating since the work is necessitated by the roadway project. An estimated quantity for B Borrow for Undercut Backfill of 15,800 Tons are being added under this change order item based on quantity placed to date and projected quantity. An estimated quantity for Geogrid Type 1B of 4,800 SYS are being added under this change order item based on projected quantity. Also included under this change order are underrun and overrun to existing items. The existing Common Excavation item is being increased an estimated 3,400 CYS for removal of unsuitable soils under the existing roadway based on quantities removed and projected quantity. The existing Unclassified Excavation item is being decreased an estimated 450 CYS for removal of unsuitable soils outside the existing roadway based on the difference between planned contract quantity and projected quantity. The existing Aggregate for Underdrain item is being decreased an estimated 200 CYS for locations being replaced with Undercut Backfill. Total change order cost is projected to be \$684,451.50 including new and existing items.

General or Standard Change Order Explanation

Pricing for work under this change order has been deemed reasonable and fair. Attached are change order request forms with markup, work order, bid history analysis, plan sheets with markup and correspondence. No additional time was requested or required under this change order to perform the work. The LPA ERC has confirmed acceptance of this change order, and INDOT PM concurrence obtained. This change order has been designated as errors and omissions, constructability related, due to the geotechnical recommendation to remove unsuitable soils at limits below those identified in the contract geotechnical report. This is verified by the recommendation provided to remove 30 inches of unsuitable soils between STA 27+50 and 31+00. For roadway construction, only 12 inches of compacted aggregates are included in the contract pay items as Subgrade Treatment, Type IC.

#### Change Order Explanation for Specific Line Item

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It is the intent of the parties that this change order is full and complete compensation for the work describe above.

Notification and consent to this change order is hereby acknowledged.

Contractor:\_\_\_\_\_

Signed By:\_\_\_\_\_

Date:\_\_\_\_\_

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NOTE: Other required State and FHWA signatures will be obtained electronically through the SiteManager system.

Contract No:B -36229  
Change Order No:006

INDIANA  
Department of Transportation

Date:04/29/2020  
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APPROVED FOR LOCAL PUBLIC AGENCY

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(SIGNATURE)

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(TITLE)

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(DATE)

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(SIGNATURE)

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(TITLE)

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(DATE)

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SUBMITTED FOR CONSIDERATION

PE/S \_\_\_\_\_

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APPROVED FOR INDIANA DEPARTMENT OF TRANSPORTATION

Approval Level	Name of Approver	Date	Status
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