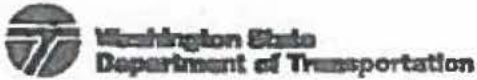


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APR 27 2020



Change Record

Contract Number 009127	Contract Title SR99 / A WV Demol, Decom, and Surface Street Project	Federal Aid Number N/A
Change Order Number 027	Change Description BST REVISED DUCTBANK - CN	Date Apr 21, 2020
Region A WV Program	Project Engineer Patrick Fuller	Phone Number 206-805-2960

Prime Contractor / Design-Builder
Kiewit Infrastructure West Co.

- Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications or the RFP
- Change proposed by Contractor / Design-Builder

Evolution & Description Of Change

Attached for further processing is Headquarter Executed Change Order No. 27, "BST REVISED DUCTBANK - CN".

DESCRIPTION & EVOLUTION:

This change order compensates the Design-Builder for monetary and time impacts associated with the revised design and construction requirements for the Seattle City Light (SCL) duct banks within the Battery Street Tunnel (BST).

The D2S2 project includes the design and construction of new medium voltage duct banks in the BST prior to decommissioning the BST by filling it with backfill material. During review of the final design drawings SCL noted that the design of the duct banks would surround the duct banks with Low Density Cellular Concrete (LDCC). LDCC is a flow-able material that has a lower density than typical backfill material and will be used to fill the BST after utility work is complete. The LDCC was used to prevent long term settlement of the BST. SCL determined that LDCC has higher thermal resistivity compared to typical backfill material, and that the LDCC would reduce the dissipation of heat which would result in SCL losing the functionality and reliability of its existing and new network system within the BST. Heat is generated by the operation of the electrical lines. If the heat cannot be dissipated adequately, the capacity of the system is reduced and the life cycle is degraded.

The Contract did not have design or life cycle standards for the future operations of the duct banks. The Contract only stipulated the size and location of the duct banks.

WSDOT suspended redesign and construction work related to SCL duct banks on August 8, 2019 pending resolution between parties. SCL commissioned an Ampacity Study to determine if the duct banks as designed by the Design-Builder would maintain functionality when surrounded by LDCC. The Ampacity Study determined that LDCC would need to be replaced with Controlled Density Fill (CDF) for some of the duct banks. The alignments of some of the duct banks were modified to facilitate heat dissipation. The added design standards resulting from the Ampacity Study were made a part of the Contract by change order 26. The Suspension on design work was lifted on August 20, 2019. The Design-Builder revised Design Packages D10A and D10B - BST Decommissioning (Utilities), and Design Package D12 - BST Surface Streets and 6th/Taylor. The Design-Builder revised the construction means and methods to comply with the new design which was approved by SCL. The means and methods also include providing a monitoring plan and mitigation action plan during placement of fill materials around the existing and new SCL duct banks.

- Distribution By:
- Project Office
 - Copy of Change Records & Change Order w/Backup - Project Engineer
 - Copy of ONLY Change Order - Prime Contractor / Design-Builder
 - Electronic Copy of Change Records & Change Order w/Backup - State Construction Office
 - Original of Change Records & Change Order w/Backup - Region Construction Office

Change Record Continuation
Contract 009127
Change Order No. 27
April 21, 2020

ENTITLEMENT:

The SCL duct bank redesign and consequent changes to the construction material and construction means and methods added Work and additional material costs. The Design-Builder is entitled to equitable adjustment in accordance with Section 1-04.4(1) of the Contract. The changes impacted the critical path for the project by adding design efforts and added construction activities. In accordance with Section 1-08.8, The Design-Builder is entitled to an extension of Contract Time.

CONTRACTOR CONCURRENCE:

The Design-Builder concurs with this change.

FHWA PARTICIPATION

Not applicable.

CONDITION OF AWARD:

This Contract does not have a COA. This change order does not affect the Voluntary MSVWBE Participation Requirements.

Contract Number 009127	Contract Title SR99 / AWV Demo., Decom., and Surface Street Project	Change Order Number 027
Basis of Cost & Justification:		
See Attachment C: Task Order WSDOT-SCL-AF		
See Attachment D: WSDOT Engineer's Estimate		
See Attachment E: Time Impact Analysis		
See Attachment F: Kiewit Surety Concurrence		
Contract Time:		
This change order extends the completion date by adding 191 calendar days to Contract Time. These additional days result in a total of 999 Calendar days for Contract Time Bid.		
Prior Approvals:		
Project Level _ Patrick Fuller, March 5, 2020		
Region / Program Level _ Denise Cieri, April 2, 2020		
State / HQ Construction Level _ Chris Christopher, April 2, 2020		
AWV Program Funding _ Cody Scheuermann, March 5, 2020		
List Attachments		
Change Order No. 27 (14 pgs)	Attachment C_Task Order WSDOT-SCL-AF(25 pgs)	
Change Order No. 27 Check List (2 pgs)	Attachment D_WSDOT Engineer's Estimate (3 pgs)	
Attachment A_ "For Information Only" (7 pgs)	Attachment E_Time Impact Analysis (4 pgs)	Attachment
Attachment B_Approvals (7 pgs)	F_Kiewit Surety Concurrence (3 pgs)	

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DOT Form 422-002

Revised 10/2017

Region

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CONTRACT NO: 009127 FEDERAL AID NO:
CONTRACT TITLE: SR 99, AWW DEMOLITION DECOMMISSIONING & SURFACE ST
CHANGE ORDER NO: 27 BST REVISED DUCTBANK - CN

PRIME CONTRACTOR: [REDACTED] KIEWIT INFRASTRUCTURE WEST CO.
33455 6TH AVE S

ORIGINAL

FEDERAL WAY WA 98003-6335

- () Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications
- () Change proposed by Contractor

ENDORSED BY:

[Signature]

CONTRACTOR

3/12/20

DATE

Travelers Casualty and Surety Company
of America
SURETY CONSENT:

[Signature]
ATTORNEY IN FACT

DATE 3/25/20

DATE

ORIGINAL CONTRACT AMOUNT: 93,749,999.00
CURRENT CONTRACT AMOUNT: 109,596,878.10
ESTIMATED NET CHANGE THIS ORDER: 6,000,123.00
ESTIMATED CONTRACT TOTAL AFTER CHANGE: 115,597,001.10

Approval Required: () Region Olympia Service Center () Local Agency

APPROVAL RECOMMENDED

[Signature]

PROJECT ENGINEER

4/21/2020
DATE

EXECUTED EXECUTED:

[Signature]
for STATE CONSTRUCTION ENGINEER

DATE 5/1/2020

APPROVAL RECOMMENDED

() EXECUTED OTHER APPROVAL WHEN REQUIRED

REGIONAL ADMIN:

[Signature]

4/24/2020
DATE

SIGNATURE

DATE

REPRESENTING

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All work, materials, and measurements to be in accordance with the provisions of the Standard Specifications and Special Provisions for the type of construction involved.

This contract is revised as follows:

The first paragraph above is deleted and replaced with:

All work, materials and measurements to be in accordance with the Contract Documents for this Project. Unless specifically modified herein, all provisions in the Contract Documents shall remain in full force and effect.

DESCRIPTION:

This change order, as mutually agreed between WSDOT and the Design-Builder, Kiewit Infrastructure West Co., compensates the Design-Builder for all costs associated with the construction of the duct bank revisions due to the revised Seattle City Light Ampacity Report detailed in Change Order 26 and in the Contractor's Design Packages D10B and D12.

This change order modifies Technical Requirements for Battery Street Tunnel Utility Work and Lane Closures.

This change order modifies the completion date for the Contract and compensates the Design-Builder for extended Project overhead for all design, planning and work related to this change.

This change order also compensates the Design-Builder for all costs to complete a thermal analysis for the placement of the low density cellular concrete (LDCC) surrounding the primary and secondary duct banks. An analysis shall take into account the change in the ambient temperatures during placement based upon the change in the scheduled time for completion of this work.

This change order also compensates the Design-Builder for all costs to complete a weight/settlement analysis of the change from LDCC to controlled density fill (CDF) around the primary duct banks.

The following Contract Documents are hereby modified as follows:

Request for Proposal, Chapter 2: Technical Requirements

1. Section 2.10.8.2.2 Battery Street Tunnel Utility Work, Article 9.a.i, as modified by Change Order 4 is revised to read:

9.a.i.

If the Design-Builder chooses option (a), up to 60 calendar days may be required for SCL to complete its conductor installation and system switch over. The sixty (60) calendar day period shall start after the Contractor has completed installation of the two (2) network vaults (within the BST) and completed the full length of the new secondary network ductbank encasement, provided, SCL has been given access to by the Design-Builder to begin

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conductor installation of encased new secondary ductbank completed lines no less than thirty (30) calendar days prior to the aforementioned sixty (60) calendar day period. Fill material cannot be placed above the bottom of the existing secondary network system until SCL has energized the relocated individual section of secondary network system. Once SCL has completed energization of the relocated secondary individual section of network system, the Design-Builder can fully encapsulate the existing section of secondary transite conduits in the fill material. The existing access structures associated with the existing secondary network system shall be removed and the surface restored in accordance with the requirements in this RFP.

2. Section 2.22.4.3.3 Lane Closures, Page 2.22-13, lines 19 to 21, are revised to read:

On Weekdays between the hours of 4:00 pm and 7:00 pm, two lanes shall be maintained on Battery Street and Third Avenue, through to Denny Way, with one lane for general purpose traffic, and one lane for buses only.

3. Section 2.22.4.3.3 Lane Closures, Page 2.22-13, lines 25 to 31, are revised to read:

During decommissioning of the Battery Street Tunnel (BST) and associated work, Battery Street may be reduced to a single 13-foot lane from Third Avenue through to Denny Way. This single lane configuration may remain in place 24 hours a day, seven days a week for a period not to exceed a total of 66 Calendar Days (continuous or non-continuous). This one lane configuration is exempt from the Seattle Center Event Restriction. This one lane configuration shall only be used during decommissioning and related construction activities requiring Work on or from the surface of the Battery Street tunnel lid.

4. Design-Build Technical Proposal, Form D CONTRACT TILE/MILESTONE COMPLETION DEADLINES, as modified by Change Order 4, is revised as follows:

Delete:

Contract Time Bid: 808 (Notice to Proceed 1 to Substantial Completion)

Add:

Contract Time Bid: 999 (Notice to Proceed 1 to Substantial Completion)

5. The following changes are made to Design-Builder Package D12:

- The Design-Build Contractor shall install and secure "marking tapes" 18 inches above the 2 inch conduits between the roof girders. Where the conduits travel transverse to the tunnel, the Design-Build Contractor shall install and secure "marking tapes" 18 inches above the 2 inch conduits.
- The spray foam shall be red in color or the exterior surface of the spray foam will be coated with red coating.
- The as-built drawings for the 2 inch conduits shall be independently verified and provided to WSDOT and COS/SCL.

6. The Design-Build Contractor shall be allowed to shift CDF encasement from the positions noted in the Design-Build Contractor's Design Package D10B

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up to 3.5 feet to accommodate formwork alignment with BST roof beams, provided minimum offsets are maintained from ductbank encasement face of concrete.

7. The Contractor's Design Packages D10A, D10B and D12 shall take precedence over COS and SCL standard specifications, details, and guidance documents. All costs and time impacts due to City of Seattle or WSDOT directed changes to the Contractor's Design Packages D10A, D10B, and D12 will be addressed by a future change order.

8. The TCE's and related/necessary permits to allow for BST decommissioning and Battery Street surface work shall be extended to the revised Project Completion date at no cost or delay to Kiewit.

9. WSDOT will work with the Design-Build Contractor to allow the paving of Battery Street surface roadway outside the applicable dates provided for in the Contract. The Design-Build Contractor shall follow all of the specifications related to placement of the pavement.

10. The Design-Build Contractor shall be allowed to use portions of the "WOSCA" site adjacent to the 1051 1st Avenue building for stockpiling granular material generated from the AWV demolition that is to be placed in and around the BST south portal. The use of the area will be provided to the Design-Build Contractor at no cost. The Design-Build Contractor shall be responsible to properly place and maintain the stockpile and clean up once the stockpile is removed.

11. The Design-Build Contractor has identified 42 service calls remaining for SCL services for the completion of the ductbank in the BST. Any additional service calls required beyond the 42 identified service calls will be provided at no additional cost to the Design-Build Contractor.

12. This change order resolves all issues with SCL in the design development, procurement and installation issues associated with the Design-Build Contractor's Protect in Place Work.

13. This change order resolves all issues related to SCL impacting the design development and completion of Design-Build Packages D10A and D10B, including delays and costs associated with SCL comment resolutions and untimely responses.

14. The Design-Build Contractor shall not be required to fill the BST Protect in Place enclosures.

15. The formwork for the ductbank encasement, CDF and LSFTB that is on a radius can be "corded" with 8 foot straight forms. Stayform can be used for the formwork for the CDF and LSFTB within the BST.

16. The Design-Build Contractor's proposal for to place and fill CDF in the BST will use the existing vents and the added core holes. To achieve the

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filling of the CDF, the Contractor intends to provide approximately 1 foot "stove pipes" extending beyond the BST roadway surface to provide the necessary head to completely fill the CDF to the underside of the BST roadway deck (soffit). This method coupled with normal consolidation efforts (vibration) should bring the CDF in contact with the BST roadway deck. If additional efforts are required beyond those listed or testing or exploration to demonstrate the CDF has come in contact with the soffit of the BST, any costs or time impacts will be addressed by a future change order.

17. The following are additional traffic control changes that are required to complete the work of this change order:

- Arterial street lane closures along Battery Street (Denny, 6th, 5th, 4th, 3rd and 2nd) shall be allowed as provided in the revision to Section 2.22.4.3.3 Lane Closures listed above. The Design-Builder will provide one (1) lane in each direction on the corresponding arterial streets. The lane closures on the arterial streets will be aligned with the corresponding CDF filling of the BST.
- On 2nd Avenue, the bike lane shall be detoured off 2nd Avenue to allow for the CDF work performed on the surface of Battery Street to progress.
- Concurrent required closures of arterial streets along Battery Street will be required.
- The Design-Builder has allowed for one (1) Uniformed Police Officer (UPO) to be required by the City for the closures necessary to perform the placement of the CDF in the BST. If the City requires additional UPO's for this work, the Contractor shall be compensated in a future change order.
- If the Contractor is prevented from taking the above listed Maintenance of Traffic requirements, the Contractor will be compensated for any and all time and cost impacts in a future change order.
- See pages eight through fourteen of this change order.

18. Any and all costs for the following exclusions will be addressed by a future change order:

- Additional engineering/structural analysis of the coring of the Battery Street Tunnel lid and any additional work required as a result of the analysis.
- Additional costs and time impacts due to additional work required by the revised weight/settlement analysis.
- Additional costs and time impacts due to additional work required by the revised thermal modeling being completed.
- Additional costs and time impacts due to revocation of the temporary noise variance (TNV) for surface street construction activities other than for the Contractor exceeding the conditions allowed in the TNV.
- Temporary loss of parking for the work on Battery Street.
- Any changes to the submitted Stoneway mix design #1121 for CDF.

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MEASUREMENT:

No specific unit of measure shall apply to the new lump sum Contract Item "CO027 Battery Street Duct Bank Revisions".

PAYMENT:

The new lump sum item, "CO027 Battery Street Duct Bank Revisions" in the amount of \$6,000,123.00 shall be full and final payment for all costs associated with the work.

The lump sum item also includes costs for additional design coordination that was not included in CO026 and any additional revisions to the RFC Plans required for completion of this work.

CONTRACT TIME:

This change order adds 191 Calendar Days to the Contract Time (NTP1 to Substantial Completion), as noted above, bringing the Contract Time Bid to 999 Calendar Days.

MISCELLANEOUS:

The Design-Builder certifies the amount of time and/or compensation granted by this Change Order includes all known and anticipated impacts or amounts, direct, indirect and consequential, which may be incurred as a result of the event or matter giving rise to this change, except as excluded above, and the Design-Builder has no reason to believe and does not believe that the factual basis for this Change Order is falsely represented.

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ITEM NO	GROUP NO	STD ITEM	ITEM DESCRIPTION	UNIT MEASURE	UNIT PRICE	EST QTY CHANGE	EST AMT CHANGE
1025	06		C0027 BATTERY STREET DUCT BANK REVISIONS	S.S.	0.00	0.00	6,000,123.00

6,000,123.00
