



RECEIVED

MAY 31 2019

Memorandum

May 28, 2019

TO: Chris Christopher, PE / Derek Case, PE MS 47354 / 360-705-7821

THRU: Brian D. Nielsen, PE *BPN* NB82-230 / 206-805-5426

FROM: Dawn McIntosh, PE *DMc* NB82-230 / 206-805-5435

SUBJECT: 009127 – SR 99/Alaskan Way Viaduct Demolition, Decommissioning, and  
Surface Street Project  
CO 004 – NSS Mods and NTP 2 / NTP 3 Revisions

Attached for HQ Execution is Change Order 004, “NSS Mods and NTP 2 / NTP 3 Revisions”.

**DESCRIPTION:**

This change order revises the estimated Contract Notice to Proceed (NTP) dates for NTP 2 and NTP 3 and compensates the Design-Builder (D-B), Kiewit Infrastructure West Co. (Kiewit), for added work primarily related to the NTP revisions. This change order also adds and adjusts Milestone and Completion dates and modifies Contract liquidated damages. The following modifications are addressed in this change:

1. Modifies the Contract NTP dates for NTP 2 and NTP 3.
2. Compensates the D-B for all additional costs related to Phase 1 and Phase 2 North Surface Streets (NSS) design.
3. Compensates the D-B for all additional costs related to schedule recovery of Phase 1 NSS construction and all associated winter impacts.
4. Compensates the D-B for extended Project overhead for all design, planning, and Work related to this change.
5. Compensates the D-B for changes to planned Viaduct demolition methods, including the addition of resources; re-sequencing of the Viaduct demolition Work; and schedule recovery for three areas of the Viaduct.
6. Adds new Milestones and Completion dates.
7. Modifies Contract Time/Milestone Completion deadlines.
8. Modifies the Contract liquidated damages for Late Completion.
9. Modifies Technical Requirements for Battery Street Tunnel Utility Work.

In addition to the above modifications, this change order fully resolves all D-B Contract time and cost impacts from the beginning of NTP 1 (July 8, 2018), up to and including November 19, 2018, related to design package review periods.

A follow on Change Order will correct the duration of the demolition work from 128 calendar days to 172 calendar days. This change is required to align the Substantial Completion date of July 29, 2019 with the required number of calendar days starting on February 8, 2019. Section 5 of the change order will be changed to the following:

*“5. Revised NTP dates for NTP 2 and NTP 3 and Contract Time/Milestone Completion deadlines*

*Add:*

*Milestone Completion Deadlines*

*Proposed Duration (Calendar Days from Notice to Proceed) and Completion Dates*

*A. 172 Calendar Days Completion Date: July 29, 2019*

*B. 354 Calendar Days Completion Date: January 27, 2020*

*C. --- Calendar Days”*

Kiewit acknowledged the error in the Change Order #4 and has agreed to executing a follow up Change Order to adjust the duration from 128 calendar days to 172 calendar days. See attached email chain between Derek Case HQ ASCE, Dewayne Matlock, D2S2 Director, and Phil Wallace, Kiewit Senior Operations Manager, dated April 16, 2016.

**EVOLUTION OF CHANGE:**

Background

Within the Alaskan Way Viaduct (AWV) Program, the individual project schedules are linked together, and in most cases, are interdependent. Because of roadway connectivity, traffic control, construction Work windows, permit constraints, and other factors, certain elements of one project cannot begin until the preceding project has reached a pre-determined level of completion. The overall schedule for the SR 99/Alaskan Way Viaduct Demolition, Decommissioning, and Surface Street (D2S2) Project was planned to logically coordinate with the anticipated schedules for the SR 99 Tunnel Project (Tunnel Project) and the SR 99 South Access Connections Project (SA Project). Several milestone dates in the D2S2 Contract are also coordinated with the City of Seattle Office of the Waterfront projects.

In order for follow-on projects to commence, the SA Project had to complete all roadway connections and ramp tie-ins south of the tunnel and realign SR 99 before the tunnel could be opened to traffic. WSDOT planned to close SR 99 through Seattle for at least three weeks prior to the tunnel opening, allowing the SA Project to finish roadway connections. The tunnel was originally scheduled to open in early 2019, but WSDOT had been notified by the Tunnel Project Design-BUILDER (STP) that it could reach project completion prior to the holiday season. In an effort to avoid a potential delay to the Tunnel Project completion, the date was moved up to approximately mid-November 2018 – prior to the start of the holiday season.

A combination of several occurrences affected the ability of both the Tunnel Project and the SA Project to complete all the required work necessary to open the tunnel to traffic prior to the beginning of the holiday season. Critical work for the advancement of the SA Project was delayed by numerous unforeseen utility conflicts, changes in the coordinated work elements between the Tunnel and SA Projects, and a labor strike. After consulting with significant stakeholders (City of Seattle, Downtown Business Association, Port of Seattle, and Burlington Norther Santa Fe (BNSF) Railroad) WSDOT elected to reschedule the Viaduct closure and final tunnel opening until after the holiday season, then pushed the tunnel opening date back to early 2019. This decision yielded several benefits:

- **Construction progress:** WSDOT had several contractors that needed to complete work to be ready for the three-week SR 99 closure. The SA Project Contractor could then build the final tunnel and ramp connections. Some of this work, like road striping, was weather dependent. The postponement of the tunnel opening provided extra time and opportunity for adequate weather to perform that work.
- **Public notice:** Opening the tunnel in early 2019 ensured that contractor work would be complete and WSDOT could provide a specific Viaduct closure date much further in advance of the tunnel opening. The public's help would be critical and would give everyone time to plan.
- **Holiday travel and commerce:** WSDOT and its partner agencies were committed to keeping people and goods moving during the busy holiday season. Avoiding a major highway closure between Thanksgiving and New Year's Day helped achieve this goal. There were also fewer major events in early 2019 than there were during the last quarter of 2018.

Two key Milestones on the D2S2 Project are dependent upon the tunnel opening date – the NSS construction and the Viaduct demolition. Both of these Milestones have defined NTP dates in the D2S2 Contract documents – NTP 2 and NTP 3, respectively. In total, there are three NTP dates associated with the D2S2 Project, as defined in the General Provisions and summarized below:

**NTP 1** - The written authorization issued by WSDOT that permits the D-B to commence performance of the of the design, construction planning, mobilization Work, and limited construction Work (excluding Viaduct demolition Work) without traffic impacts or under approved temporary lanes closures. *NTP 1 was issued by WSDOT on July 18, 2018.*

**NTP 2** – The written authorization issued by WSDOT that permits the D-B to commence performance of the construction Work on Aurora Avenue North, in the Battery Street Tunnel (BST) and the early Viaduct demolition Work. *NTP 2 was targeted to coincide with the date that the new SR 99 Tunnel opened to traffic. The D-B was to assume that NTP 2 would occur on November 15, 2018.*

**NTP 3** - The written authorization issued by WSDOT that permits the D-B to commence performance of the Viaduct demolition not released under NTP 2. *The D-B was to assume that NTP 3 would occur on January 2, 2019.*

Kiewit prepared its Proposal and Baseline Candidate Schedule in accordance with the NTP 2 and NTP 3 dates provided in the General Provisions.

#### Revisions to NTP 2 and NTP 3 Dates

On October 17, 2018 WSDOT issued Serial Letter (SL) #18-0011 (WA-G-CHN-GEN-CR-1-04-000015-01) to Kiewit stating that WSDOT had rescheduled the beginning of the closure of the SR 99 Alaskan Way Viaduct from November 15, 2018 to January 11, 2019. This new closure date affected the assumed NTP 2 date of November 15, 2018 and consequently, the NTP 3 start date. The new NTP 2 and NTP 3 dates should now correspond to the new tunnel open date and are assumed to be on or about February 8, 2019. WSDOT would allow some Work to

commence after the January 11, 2019 closure date and prior to the revised NTP 2 and NTP 3 date of February 8, 2019. These items of Work would include non-structural elements such as removal of signage, utility poles, and illumination systems in preparation for the Viaduct demolition Work to begin at NTP 2 and NTP 3. This letter provided written direction for Kiewit to proceed with the revised NTP 2 and NTP 3 dates until a change order could be executed. WSDOT also requested a baseline schedule reflecting the revised NTP 2 and NTP 3 date of February 8, 2019, as well as information to support any and all impacts as a result of the revision.

Kiewit responded with KIWC-WSDOT-LET-006 dated October 23, 2018 acknowledging receipt of WSDOT's SL #18-0011 and providing notice that Kiewit would be submitting a request for time extension and equitable adjustment for the ordered change to NTP 2 and NTP 3. Kiewit also suggested establishing bi-weekly meetings to discuss the schedule and cost impact analysis. Kiewit would begin working on the requested schedule and determining Work items that could be started earlier than February 8, 2019.

On January 8, 2019 WSDOT issued SL #19-0001 (WA-G-CHN-GEN-CR-1-04-000015-02) to Kiewit granting authorization to commence performance of the Work under NTP 2 and NTP 3 effective February 8, 2019.

WSDOT and Kiewit met on January 29, 2019 to discuss impacts to Kiewit's planned schedule and progression of Work, as well as strategies for schedule recovery and cost mitigation. The change in the NTP 2 and NTP 3 dates necessitated several changes to the Contract. Not all of the changes in this change order are a result of NTP 2 and NTP 3 modifications, however. The specific changes, causes, and justifications are provided in the sections that follow.

#### Changes to NSS Design and Construction

The NSS Work area includes Aurora Avenue, from Denny Way to Harrison Street. WSDOT had previously agreed with the City of Seattle and King County Metro (KCM) to provide one 'Bus-Only' and one general purpose lane in the northbound (NB) direction, from Denny Way to Harrison Street, during all phases of construction. However, this agreed-upon NB lane configuration was unclear in the Request for Proposal (RFP) documents and did not get incorporated into Kiewit's preliminary design. In its original proposal, Kiewit planned for Work in the NSS area to be staged in two phases and prepared 20-percent level Proposal design plans to reflect this approach.

WSDOT subsequently requested Kiewit provide a revised approach to the NSS construction phasing so that two NB lanes could be provided throughout construction. Kiewit proposed a six-phase staging approach, and WSDOT directed Kiewit to proceed with implementing this approach on September 14, 2018.

On October 3, 2018, WSDOT issued SL #18-008 (WA-C-PLN-NSS-TR2.22-000013-01) to Kiewit, followed by SL #18-009 (WA-C-PLN-NSS-TR2.22-000013-02) on October 9, 2018, requesting an itemized breakdown of Kiewit's cost proposal to implement the six-phase staging change.

Kiewit responded on November 14, 2018 with KIWC-WSDOT-LET-008 acknowledging WSDOT's letters and requesting that the cost proposal and schedule analysis be provided after NSS phase design comment resolution so that impacts could be better identified.

As the six-phase staging plans progressed, it became evident that six phases would add too much cost to the Project, including an additional two to three months of time, which impacted the critical path. In addition, it would be difficult and confusing for buses and the traveling public to navigate so many traffic revisions, and changing bus routes, over a relatively short period of time.

WSDOT worked with the City of Seattle (COS) and KCM to determine a solution that would be amenable for transit, while reducing costs for the Project and minimizing schedule delays. An agreement was made to change back to a two-phase staging approach, with an abbreviated Bus-Only lane during the first phase. Part of the agreement included extending the Bus-Only lane through the John Street intersection (not previously shown on Kiewit's Proposal design plans) and accelerating construction of the first phase to reduce the bus lane limitation as much as possible.

On November 27, 2018, WSDOT and Kiewit met to discuss changes to the NSS Work that would meet WSDOT's commitment with the COS and KCM and minimize overall cost and schedule impacts to the Project. The agreed-up solution included:

- Changing from the six-phase staging (which was at approximately 50-percent completion) back to the original two-phase staging, with some modifications to the original two-phase design
- Separating the two-phase staging plans into two Released for Construction (RFC) drawing submittals – Phase 1 and Phase 2
- Reducing the duration of the Phase 1 RFC design package and providing additional engineering to submit a separate Phase 2 RFC package
- Phase 1 construction schedule recovery due to the issuance of NTP 2 on February 8, 2019
- Extending two northbound lanes (one Bus-Only) through the John Street intersection during Phase 1 of construction, thereby modifying Kiewit's original Proposal by extending these lanes northerly 100 feet
- Allowing through traffic movements on all four legs of Harrison Street, while restricting two left turning movements (a modification to Kiewit's original Proposal)

At the November 27, 2018 meeting, WSDOT directed Kiewit to discontinue the six-phase design plans and resume design and implementation of Kiewit's original two-phase Proposal design, with some modifications (as described above). The direction to proceed with these design changes was documented in SL #18-0021 (WA-D-GEN-NSS-CR-1-04-00038-01) dated December 6, 2018.

In its Proposal, Kiewit had included a seasonal (winter) moratorium for placing Portland Cement Concrete Pavement (PCCP) between October 1 and April 1. The revised issuance of NTP 2 and the acceleration of Phase 1 of NSS construction required PCCP to be placed during the winter

months. Kiewit agreed to place PCCP during this window, but there are inefficiencies and additional costs to doing so because the PCCP must be protected from the cold and rain, drainage must be provided, and other measures taken to ensure the PCCP is properly cured. Kiewit also increased its work week to include Saturdays as part of the strategy to accelerate Phase 1 of NSS construction.

This change order compensates Kiewit for the changes listed above, including the prior modification of switching from the original two-phase staging to six-phase staging earlier in the Project, as well as all other costs related to the above changes – overhead, administration, property owner notifications, traffic control, schedule updates, environmental compliance, and risk.

#### Extended Project Overhead

The change in issuance of NTP 2 from November 15, 2018 to February 8, 2019 added 85 days of unplanned Project overhead during the design and planning stages of the Project. This change order compensates Kiewit for all costs associated with the extended duration of Project overhead.

#### Changes to Planned Construction Methods and Resequencing of Work

##### *Changes to Planned Construction Methods*

The general means and methods for demolition of the Viaduct is to utilize specialized equipment attached to large excavators to process the concrete Viaduct into small rubble in place. In addition to this method along the Viaduct, there are a number of locations where the demolition Work area is in very close proximity to existing buildings, walls and bridges. To minimize potential ground vibration in these areas and for protection from falling debris, Kiewit plans to use concrete saw cutting equipment to cut the structure into large pieces and remove the pieces utilizing large cranes. This cut and remove method was not planned for the Work adjacent to and over the BNSF Railroad tracks in Area 1 (Bents 38E-44E and 36W-41W). In this area, WSDOT directed Kiewit to recover schedule to reduce time on the critical path for both viaduct demolition and on the future COS Office of the Waterfront Projects.

This change order compensates Kiewit for changing its planned demolition means and methods in Area 1 – within 50 feet of the BNSF Railroad tracks (Bents 38E-44E and 36W-41W) – and schedule recovery. This change will reduce risk on the critical path for viaduct demolition.

##### *Resequencing of Work*

As discussed above, the COS has a follow-on project to D2S2 – the Waterfront Development Project – which requires various areas of the D2S2 Project to be completed and cleared to allow the COS access for its project.

Viaduct Area 1 (Bent 1-57): The RFP requires demolition in Area 1 to be completed and the underlying property turned over to the City within 110 days from the original NTP 2, or April 30, 2019, whichever is later. Due to the change in NTP 2 issuance, Kiewit needed to re-sequence and accelerate Work in Area 1 to minimize the overall duration for viaduct demolition. This change order compensates Kiewit for Work re-sequencing and schedule recovery in Area 1.

Viaduct Area 2 (Bent 57-90): A commitment was made to the waterfront business community to limit impacts to the waterfront area during the summer tourism season. Kiewit's proposal would have this work done by mid-May, 2019. Due to the change in NTP 3 issuance, Kiewit needed to re-sequence and accelerate its Work in Area 2 for schedule recovery and to minimize demolition duration on the central waterfront. This change order compensates Kiewit for re-sequencing and accelerating the Work for schedule recovery in Area 2.

Viaduct Area 3 (Bent 90-133): WSDOT and its partners, COS and KCM, desire the routing of transit onto Columbia St. as soon as possible. To address this, the Contract TR 2.1.1.4, required that the DB complete demolition of the Columbia St. Ramp and one mainline span, as well as construction of the temporary pedestrian bridge at Columbia St. by May 1, 2019. Kiewit is unable to meet this date, with the change in NTP 2.

This Change Order compensates Kiewit for re-sequencing the work in this area to complete the demolition in Columbia St. and open the bridge by July 15, 2019.

#### New Milestones and Completion Dates

Timely completion of Viaduct demolition is critical to the Project schedule. Kiewit is implementing changes to its demolition means and methods and is re-sequencing some of the Viaduct demolition Work for schedule recovery purposes, which is primarily attributed to the change in NTP 2 and NTP 3. To further ensure timely completion of Viaduct demolition and to memorialize this agreement between WSDOT and Kiewit, this change order establishes new interim Milestones and Completion dates, as shown below:

Area 1 (north and inclusive of Bent 57)	June 20, 2019
Area 2 (north and inclusive of Bent 91)	June 1, 2019
Area 3 (south of Bent 91)	July 25, 2019

The completion dates above designate completion of all demolition and removal Work that is included in the Contract, excluding restoration.

Another new interim Milestone and Completion date pertains to the Temporary Marion Street Pedestrian Bridge (TMSPB). Washington State Ferries is currently rebuilding the area at the west end of the pedestrian bridge as part of their Colman Dock Project, which will include the foundation and structure for the west end of the TMSPB. The TMSPB cannot be put into service until the new Colman Dock Terminal is ready to receive pedestrians, which is currently anticipated to occur in mid-July 2019. This new Contract Milestone and Completion date is established to ensure timely completion of the TMSPB and to memorialize this agreed-upon date between WSDOT and Kiewit. WSDOT is working with Washington State Ferries on a weekly basis to coordinate between the two projects and to collaborate on timing.

Temporary Marion Street Pedestrian Bridge	July 15, 2019
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This date includes superstructure erection and all other construction components pertinent to the function of the bridge, including but not limited to lighting, drainage, and handrails. The new Completion date does not include final bridge finishes.

**Revisions to Contract Time/Milestone Completion Deadlines**

As part of this change order, NTP 2 and NTP 3 dates will be modified in Kiewit’s Contract Proposal to reflect actual NTP dates that were governed by the opening of the Tunnel Project to traffic.

Revisions to NTP 2 and NTP 3 caused some of the Project Milestone durations to change. The Contract originally included the following durations, milestones, and timeframes:

**ORIGINAL CONTRACT REQUIREMENTS**

Contract Time Bid	749 Days (NTP 1 to Substantial Completion)
Substantial Completion of Viaduct Demolition	128 Calendar Days
Substantial Completion of NSS	400 Calendar Days

The Contract Time Bid (duration) is extended with this change order due to the revision of NTP 2 and NTP 3. (See the Contract Time section of this change order). Kiewit’s scheduled date for Substantial Completion was originally July 26, 2020. Through this change order, an actual date is established for Substantial Completion, in addition to the duration requirement.

Substantial Completion of the Viaduct demolition was impacted in terms of overall duration (172 days). However, Kiewit’s scheduled date for Substantial Completion of this Work was originally May 9, 2019. With this change order, an actual date is established for Substantial Completion, in addition to the duration requirement. A follow on change order is required to correct the number of days from 128 days to 172 days.

Substantial Completion of the NSS was originally to be accomplished within 400 Calendar Days. Kiewit’s scheduled date for Substantial Completion of this Work was originally December 19, 2019. This change order includes compensating Kiewit to accelerate the design of Phase 1 and Phase 2, as well as the construction of Phase 1 (see “Changes to NSS Design and Construction” section). Therefore, the overall duration of this milestone has decreased from 400 Calendar Days to 354 Calendar Days. With this change order, an actual date is established for Substantial Completion, in addition to the duration requirement.

New Contract Time and Milestone Completion dates established by this change order are as follows:

**REVISED CONTRACT REQUIREMENTS**

Contract Time Bid	808 Days (NTP 1 to Substantial Completion)	September 23, 2020
Substantial Completion of Viaduct Demolition	172 Calendar Days	July 29, 2019
Substantial Completion of NSS	354 Calendar Days	January 27, 2020

**Revisions to Contract Liquidated Damages**

As part of this change order negotiation, WSDOT agreed to reasonable compensation for Kiewit’s impacts resulting from NTP 2 and NTP 3 revisions, while also minimizing additional

costs to the Project. As shown above, Milestone Completion dates have been added to the overall Project Substantial Completion (NTP 1 to Substantial Completion) as well as Substantial Completion for two critical Project milestones.

Kiewit had originally planned its Project schedule based on a 5-day work week. The schedule recovery efforts included in this change order due to NTP 2 and NTP 3 revisions – Phase 1 NSS construction and Areas 1, 2, and 3 Viaduct demolition – required Kiewit to add Saturday to its typical work week. This extended work week was to the Project's benefit in keeping the schedule on track and for coordination with Project stakeholders. However, the expanded work week adds risk to Kiewit, as there is less opportunity for schedule recovery that may become necessary due to its own possible inefficiencies or delays over the course of the Project. This transfer of risk would ordinarily be reflected in an additional cost element for these changes to the Work. In order to mitigate this potential risk value, WSDOT agreed to eliminate liquidated damages for Late Completion and work collaboratively with the D-B to address any risks that materialize.

Liquidated damages for Late Completion for each of the milestones listed in section 1-08.9(1) of the General Provisions are hereby removed with this change order. The requirement for the D-B to compensate WSDOT for actual direct costs (personnel costs, administrative costs, consulting fees, and overtime expenses) associated with the D-B's failure to meet the deadlines for Physical Completion and Completion following Substantial Completion is also removed from the Contract with this change order.

#### Revisions to Technical Requirements for Battery Street Tunnel Utility Work

The Technical Requirements (TR) allow the D-B two options for construction and energization of the Seattle City Light (SCL) new secondary network system to be installed adjacent to the BST. The new system includes construction of a new duct bank that runs parallel to the BST from the alley between First and Second Avenues to Sixth Avenue, and construction of two new network vaults at Second and Third Avenues. In its Proposal, Kiewit chose the option which allows construction and energization of the secondary network system to occur in the course of the BST tunnel decommissioning. With this option, the TR allows SCL up to six months to complete its conductor installation and system switch over once the new secondary system is constructed in its entirety by the D-B and inspected and approved by SCL.

Completion of SCL's new secondary network system occurs early in Kiewit's critical path for BST decommissioning Work. In its Proposal, Kiewit planned to begin BST decommissioning immediately following NTP 2 and achieve substantial completion of the BST in July 2020. Construction of the duct bank and vaults was to be started in February 2019 and completed by April 2019. SCL's switch over would begin immediately after that and continue from May 2019 through October 2019. Filling of the BST could not occur until SCL had finished its work.

Due to the revision to NTP 2, Kiewit was not able to begin the early BST decommissioning Work which had to be done prior to installation of the secondary network system, including ventilation, removal of soot, and establishing site access to the BST. In order to recover schedule for the BST decommissioning Work, WSDOT has been working with SCL to negotiate two potential options:

1. Decrease the Contract requirement for SCL's six-month conductor installation and system switchover window to five months, or
2. Allow the D-B to construct the duct bank in six shorter segments; SCL would then begin its conductor installation and switch over once the first of the six individual sections is constructed by the D-B and approved by SCL; conductor installation and switch over would continue sequentially to the next completed section.

These two options are still being negotiated between WSDOT and SCL. This change order incorporates the above options and modifications into TR Section 2.10.8.2.2 Battery Street Utility Work, with the understanding that if SCL determines more than five months are needed for its work, or if SCL's work will begin after the entire duct bank system has been installed and accepted, the resulting impacts will be assessed in a future change order.

**ENTITLEMENT:**

This is a WSDOT-Initiated Change. The D-B is entitled to an equitable adjustment in accordance with 1-04.4(1) of the Contract.

**PRICING THE CHANGE:**

This change order includes three primary issues that have added costs related to this settlement. The attached engineers estimate provides a range of costs for each of the issues, which support the final agreed upon price.

1. NSS Design and Construction  
This added work included extending two 100 ft. lanes. The estimate is based on added quantities and estimated unit prices. In addition to the added quantities the D-B added resources and increased work hours for this work.
2. Extended Project Overhead  
Pricing for this issue includes the estimated D-B costs for extending the Contract 59 calendar days. These costs do not include schedule recovery. The method used to establish the range of cost is approximate project overhead staffing, equipment and other indirect expenses.
3. Demolition Methods and Resequencing  
Costs for this issue relate primarily to the D-B's changed means and methods and added resources and work hours to recover schedule for the Viaduct demolition work. Estimated costs are based on a range of previous projects average costs and potential inefficiencies caused by congestion and added work hours. Approximately 162 calendar days of schedule was recovered through these efforts, thus avoiding significant additional extended overhead.

WSDOT and the D-B met to negotiate an equitable settlement to those issues included in this change order. An agreement was reached with this change order documents.

**PRICE:**

WSDOT has agreed to compensate the D-B for all Work pursuant to three new lump sum items:

“CO 004, NSS Design and Construction Mods”, in the agreed to amount of \$855,125.00.

“CO 004, Demolition Methods and Resequencing”, in the agreed to amount of \$3,273,000.00.

“CO 004, Extended Project Overhead”, in the agreed to amount of \$2,805,000.00.

**CONTRACT TIME:**

This change order adds 59 Calendar Days to the Contract Time (NTP 1 to Substantial Completion), bringing the Contract Time Bid to 808 Calendar Days.

**APPROVALS:**

- Dawn McIntosh, P.E., D2S2 Engineering Manager, approved the change March 20, 2019
- Brian D. Nielsen, P.E., AWW Program Administrator, approved the change March 20, 2019
- Craig McDaniel, P.E., HQ Construction, approved the change April 2, 2019
- Mario Mathisen, Program Management gave funding concurrence March 20, 2019
- Derek Case, P.E., HQ Construction, approval to proceed with error to calendar days to perform Demo work, with commitment to execute a future no-cost Change Order to correct the error.

**ATTACHMENTS TO THE MEMO:**

- Change Order
- Change Order Checklist
- Engineer’s cost estimate
- Approvals listed above
- Email Chain with Phil Wallace, Kiewit Senior Operations Manager, dated April 16, 2016
- WSDOT Directive Letters

cc: Project File

**WASHINGTON STATE  
DEPARTMENT OF TRANSPORTATION  
CHANGE ORDER**

DATE: 03/20/19  
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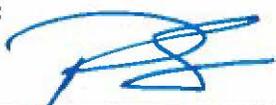
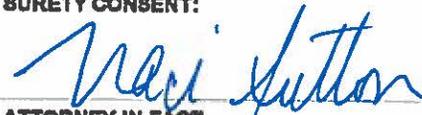
CONTRACT NO: 009127 FEDERAL AID NO:  
CONTRACT TITLE: SR 99, AWV DEMOLITION DECOMMISSIONING & SURFACE ST  
CHANGE ORDER NO: 4 NIP2 AND NIP3 REVISION

PRIME CONTRACTOR: [REDACTED] KIEWIT INFRASTRUCTURE WEST CO.  
33455 6TH AVE S  
FEDERAL WAY WA 98003-6335

Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications

Change proposed by Contractor

Travelers Casualty and Surety Company of America

<p>ENDORSED BY: </p> <p>CONTRACTOR: Kiewit Infrastructure West Co.</p> <p>DATE: 4/19/19</p>	<p>SURETY CONSENT: </p> <p>ATTORNEY IN FACT</p> <p>4/5/19 Traci Sutton, Attorney-in-Fact</p> <p>DATE</p>
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ORIGINAL CONTRACT AMOUNT: 93,749,999.00  
CURRENT CONTRACT AMOUNT: 100,027,956.00  
ESTIMATED NET CHANGE THIS ORDER: 6,933,125.00  
ESTIMATED CONTRACT TOTAL AFTER CHANGE: 106,961,081.00

Approval Required:  Region  Olympia Service Center  Local Agency

<p><input checked="" type="checkbox"/> APPROVAL RECOMMENDED <input type="checkbox"/> EXECUTED</p> <p>Devin M. McWhorter PROJECT ENGINEER</p> <p>10 APRIL 2019 DATE</p>	<p>EXECUTED: </p> <p>STATE CONSTRUCTION ENGINEER</p> <p>4/22/19 2019 DATE RECD</p>
<p><input checked="" type="checkbox"/> APPROVAL RECOMMENDED <input type="checkbox"/> EXECUTED</p> <p>REGIONAL ADMIN: </p> <p>BY: </p> <p>4/18/19 DATE</p>	<p>OTHER APPROVAL WHEN REQUIRED</p> <p>SIGNATURE _____ DATE _____</p> <p>REPRESENTING _____</p>

**WASHINGTON STATE  
DEPARTMENT OF TRANSPORTATION  
CHANGE ORDER**

DATE: 03/20/19  
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CONTRACT NO: 009127

CHANGE ORDER NO: 4

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 (D-B), Kiewit Infrastructure West Co. (Kiewit), includes the following modifications to the Contract as associated with issuance of NIP2 and NIP3:

1. Modifies the Contract Notice to Proceed (NIP) dates for NIP 2 and NIP 3.
2. Compensates the D-B for all additional costs related to Phase 1 and Phase 2 North Surface Streets (NSS) design.
3. Compensates the D-B for all additional costs related to schedule recovery of Phase 1 NSS construction and all associated winter impacts.
4. Compensates the D-B for extended Project overhead for all design, planning and Work related to this change.
5. Compensates the D-B for changes to planned Viaduct demolition methods, including the addition of resources; re-sequencing of the Viaduct demolition Work; and schedule recovery for two areas of the Viaduct.
6. Adds new Milestones and Completion Dates.
7. Modifies Contract Time/Milestone Completion deadlines.
8. Modifies the Contract liquidated damages for Late Completion.
9. Modifies Technical Requirements for Battery Street Tunnel Utility Work.

**GENERAL:**

Unless specifically noted otherwise herein, this change order compensates the D-B and its subconsultants, subcontractors, suppliers, and others in full for all costs, time, delay, impacts, inefficiencies, including but not limited to direct, indirect and consequential, associated with all Work included in or related to this change order.

The D-B agrees that all Contract time and costs from the beginning of NIP 1 (July 8, 2018) up to and including November 19, 2018, related to design package review periods, have been resolved as part of this change order.

This change order specifically:

**1. NSS Design and Construction**

Compensates the D-B for the following additional Work and associated costs related to the NSS Project area:

- Extending two northbound lanes (one Bus-only) through the John Street intersection during Phase 1 of construction, thereby modifying the D-B's original Proposal concept by extending these lanes northerly 100

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feet.

- Allowing through traffic movements on all four legs of Harrison Street, while restricting two out of four left turning movements, thereby modifying the D-B's original Proposal.
- Changing from the D-B's original Proposal of two-phase staging plans, to six-phase staging plans, and back to two-phase staging plans.
- Separating the two-phase staging plans into two Released for Construction (RFC) drawing submittals - Phase 1 and Phase 2.
- Rescheduling the Phase 1 RFC design package and additional engineering required to submit a separate Phase 2 RFC package.
- Phase 1 construction schedule recovery due to the issuance of NTP 2 on February 8, 2019.
- All other costs related to the above changes, including but not limited to: overhead, administration, schedule updates, property owner notifications, traffic control, environmental compliance, and risk.

**2. Extended Project Overhead**

Compensates the D-B for all extended Project overhead caused by the change in issuance of NTP 2 and NTP 3.

**3. Changes to Planned Construction Methods and Re-sequencing of Work**

Compensates the D-B for changes in Viaduct demolition Work means and methods and the addition of resources required for schedule recovery along the northern portion of Area 1 (Bent 1-57), adjacent to and over the ENSF Railroad.

Compensates the D-B for resequencing of Work that was required to achieve earlier completion of Viaduct demolition in Area 1 (Bent 1-57) and Area 3 (Bent 90-133), resulting from the change in issuance of NTP 2 and NTP 3 to February 8, 2019.

**4. New Milestones and Completion Dates**

Establishes new Milestones and Completion Dates as follows:

**Viaduct Demolition**

Area 1 (north and inclusive of Bent 57)	June 20, 2019
Area 2 (north and inclusive of Bent 91)	June 1, 2019
Area 3 (south of Bent 91)	July 25, 2019

The Completion dates above designate the completion of all demolition and removal work that is included in the Contract, excluding restoration.

**Temporary Marion Street Pedestrian Bridge**

Pedestrian Bridge Superstructure                      July 15, 2019

The Completion date above includes superstructure erection and all other construction components pertinent to the function of the bridge, including but not limited to lighting, drainage, and handrails. The Completion date above does not include final finishes.

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**CONSTRUCTION CRITERIA:**

**5. Revised NTP dates for NTP 2 and NTP 3 and Contract Time/Milestone Completion deadlines**

The following Contract Documents are hereby modified as follows:

Design-Build Technical Proposal, Form D CONTRACT TIME/MILESTONE COMPLETION DEADLINES

Delete:

Contract Time Bid: 749 (Notice to Proceed 1 To Substantial Completion)

Add:

Contract Time Bid: 808 (Notice to Proceed 1 To Substantial Completion)  
Completion Date: September 23, 2020 (Notice to Proceed 1 To Substantial Completion)

Delete:

Milestone Completion Deadlines

Proposed Duration (Calendar Days from Notice to Proceed)

- A. 128 Calendar Days
- B. 400 Calendar Days
- C. --- Calendar Days

Add:

Milestone Completion Deadlines

Duration (Calendar Days from Notice to Proceed) and Completion Dates

- A. 128 Calendar Days Completion Date: July 29, 2019
- B. 354 Calendar Days Completion Date: January 27, 2020
- C. --- Calendar Days

Delete:

Notes:

- A. Proposed duration for Substantial Completion of Viaduct Demolition shall be the duration from NTP3 to the date when all portions of the Viaduct are demolished to ground surface or lower, all properties have full and unrestricted access, and remaining demolition and restoration Work can be completed while maintaining the northbound access road and without lane closures on Alaskan Way. (For purposes of the Proposal, assume NTP3 will be January 2, 2019.)
- B. Proposed duration for Substantial Completion of the north surface streets Work shall be the duration from NTP2 to the date when Aurora Avenue between Denny Way and Harrison Street and the intersections at Denny Way, John, and Thomas Streets are ready to be opened for public traffic, and the remaining Work can be completed within single lane or shoulder closures in accordance with Section 2.22, Maintenance of

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Traffic. (For purposes of the Proposal, assume NTP2 will be the day the new SR 99 Tunnel opens to traffic and the date of NTP2 will be November 15, 2018.)

Add:

Notes:

- A. Proposed duration for Substantial Completion of Viaduct Demolition shall be the duration from NTP3 to the date when all portions of the Viaduct are demolished to ground surface or lower, all properties have full and unrestricted access, and remaining demolition and restoration Work can be completed while maintaining the northbound access road and without lane closures on Alaskan Way. (NTP3 will be issued on February 8, 2019.)
- B. Proposed duration for Substantial Completion of the north surface streets Work shall be the duration from NTP2 to the date when Aurora Avenue between Denny Way and Harrison Street and the intersections at Denny Way, John, and Thomas Streets are ready to be opened for public traffic, and the remaining Work can be completed within single lane or shoulder closures in accordance with Section 2.22, Maintenance of Traffic. (NTP2 will be issued on February 8, 2019.)

6. Liquidated Damages

The following Contract Documents are hereby modified as follows:

Request for Proposal, Chapter 1: General Provisions

Section 1-08.9(1) Liquidated Damages for Late Completion is modified as follows:

Delete:

"Because WSDOT finds it impractical to calculate the actual cost of delays, it has adopted the following formula to calculate liquidated damages for failure to complete the physical Work of a Contract on time.

Accordingly, the Design-Builder agrees:

1. To pay (according to the following formula) liquidated damages for each day of delay in achieving Substantial Completion beyond the deadline established therefore, and

Liquidated Damages Formula

$$LD = 0.15C/T$$

Where:

ID = Liquidated damages per Calendar Day (rounded to the nearest dollar)

C = Total Proposal Price (from ITP Form B)

T = Original time from NTP1 to Substantial Completion

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2. To pay (according to the following formula) liquidated damages for each day of delay in achieving Substantial Completion of Viaduct Demolition (as defined in ITP Form D) beyond the deadline established therefore, and

Liquidated Damages Formula  
 $LD(VD) = 0.15C(VD)/T(VD)$

Where:

$LD(VD)$  = Liquidated damages per Calendar Day (rounded to the nearest dollar)  
 $C(VD)$  = Viaduct Demolition Proposal Price (from ITP Form B including Rule 170 and 171)  
 $T(VD)$  = Original time from NIP3 to Substantial Completion

3. To pay (according to the following formula) liquidated damages for each day of delay in achieving Substantial Completion of North Surface Streets (as defined in ITP Form D) beyond the deadline established therefore, and

Liquidated Damages Formula  
 $LD(NSS) = 0.15C(NSS)/T(NSS)$

Where:

$LD(NSS)$  = Liquidated damages per Calendar Day (rounded to the nearest dollar)  
 $C(NSS)$  = North Surface Streets (from ITP Form B)  
 $T(NSS)$  = Original time from NIP2 to Substantial Completion

4. To pay (according to the following formula) liquidated damages for each day of delay in achieving interim milestone Alaskan Way Viaduct Demolition Work North of Bent 57 Completion Date and

Liquidated Damages Formula  
 $LD(NB57) = 0.15C(NB57)/T(NB57)$

Where:

$LD(NB57)$  = Liquidated damages per Calendar Day (rounded to the nearest dollar)  
 $C(NB57)$  = \$153,000,000 (WSDOT Waterfront Seattle Costs)  
 $T(NB57)$  = 730 (Days for Waterfront Seattle)

5. To pay Liquidated Damages for Failure to Open Lanes and Roadway per Section 1-08.9(2) for Columbia Street for each day of delay in achieving interim milestone Columbia Street On Ramp Demolition Work Completion.

6. To pay Liquidated Damages of \$13,000 per day for each day of delay in removing the Battery Street Lane Reductions as described in Technical Requirements Section 2.22.4.3.3, Lane Closures, and ITP Section 3.3.3.4 Project Approach - Battery Street Closure (Section 2.4), beyond the commitment provided by the Design Builder in its Proposal.

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The Design Builder will not be assessed Substantial Completion, Substantial Completion of Viaduct Demolition, and Substantial Completion of North Surface Streets Liquidated Damages concurrently should they occur during the same period. WSDOT will assess the highest value of the Substantial Completion, Substantial Completion of Viaduct Demolition, and Substantial Completion of North Surface Streets Liquidated Damages should they occur during the same period.

For delays by the Design-Builder in meeting the deadlines for Physical Completion and Completion following achievement of Substantial Completion, WSDOT shall be entitled to recover from the Design-Builder WSDOT's actual direct costs incurred as the result of such delay, including personnel costs, administrative costs, consulting fees, and overtime expenses.

WSDOT is authorized to deduct these liquidated damages from any money due or coming due to the Design-Builder.

Liquidated damages will not be assessed for any days for which an extension of time is granted. No deduction or payment of liquidated damages will, in any degree, release the Design-Builder from further obligations and liabilities pursuant to the Contract."

Add:

"This Section is intentionally omitted."

Section 1-08.9(2) Liquidated Damages for Failure to Open Lanes and Roadway is supplemented with the following:

"5. To pay Liquidated Damages of \$13,000 per day for each day of delay in removing the Battery Street Lane Reductions as described in Technical Requirements Section 2.22.4.3.3, Lane Closures, and ITP Section 3.3.3.4 Project Approach - Battery Street Closure (Section 2.4), beyond the commitment provided by the Design Builder in its Proposal."

Section 1-08.9(8) Liquidated Damages for Right of Way Impacts is revised to read:

"For failure to complete Demolition Work and restore property owner right of way access rights within the time period specified in the Temporary Construction Easement (TCE), as described in Section 2.24.4.3, will result in increased costs to WSDOT.

Accordingly, the Design-Builder agrees:

1. To pay \*\*\*\$200.00\*\*\* in liquidated damages for right-of-way impacts beyond those specified in the TCE period per \*\*\*15 minutes\*\*\* for each \*\*\*15-minute\*\*\* period (prorated to the nearest \*\*\*5 minutes\*\*\* that the Design-Builder fails to restore full right-of-way access to property owners as specified Sections 2.24.4.3, OR to pay the actual damages

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incurred per the appropriate Temporary Construction Easement, whichever is less.

2. To authorize WSDOT to deduct these liquidated damages from any money due or coming to the Design-Builder."

7. Battery Street Tunnel Utility Work

The following Contract Documents are hereby modified as follows:

Request for Proposal, Chapter 2: Technical Requirements

Section 2.10.8.2.2 Battery Street Tunnel Utility Work, Article 9.a.i., is revised to read:

9.a.i.

"If the Design-Builder chooses option (a), up to six (6) months may be required for SCL to complete its conductor installation and system switch over. The six (6) months will be reduced to five (5) months or SCL will begin the installation of their conductors and switchover once the first of the six individual sections of duct banks are installed, inspected and has received acceptance from SCL for the individual section of duct bank and vault. The reduction to five (5) months and SCL beginning work on individual sections of duct bank are still being negotiated. If SCL determines that more than five (5) months are needed and work will begin after the entire duct bank system has been installed and accepted by SCL, the resulting impacts will be assessed in a future change order. 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."

**MEASUREMENT:**

No specific unit of measure shall apply to the new lump sum Bid Items:

- "CO#004 - NSS Design and Construction Mods"
- "CO#004 - Demolition Methods and Resequencing"
- "CO#004 - Extended Project Overhead"

**PAYMENT:**

The new lump sum Bid Items:

- "CO#004 - NSS Design and Construction" in the amount of \$855,125
- "CO#004 - Demolition Methods and Resequencing" in the amount of \$3,273,000
- "CO#004 - Extended Project Overhead" in the amount of \$2,805,000

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shall be full and final payment for all costs associated with the Work.

**CONTRACT TIME:**

This change order adds 59 Calendar Days to the Contract Time (NIP 1 to Substantial Completion), as noted above, bringing the Contract Time Bid to 808 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 and that 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

<del>1002</del> <i>008</i>	08		CO#004 - NSS DESIGN AND CONSTRUCTION MODS	L.S.	0.00	0.00	855,125.00
<del>1003</del> <i>019</i>	02		CO#004 - DEMOLITION METHODS AND RESEQUENC	L.S.	0.00	0.00	3,273,000.00
<del>1004</del> <i>020</i>	02		CO#004 - EXTENDED PROJECT OVERHEAD	L.S.	0.00	0.00	1,290,300.00
<del>1004</del>	05		CO#004 - EXTENDED PROJECT OVERHEAD	L.S.	0.00	0.00	869,550.00
<del>1004</del>	08		CO#004 - EXTENDED PROJECT OVERHEAD	L.S.	0.00	0.00	645,150.00

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6,933,125.00  
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