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

This change order provides the Contractor compensation for additional effort associated with loose rip rap obstructions encountered during the drilling of shafts and schedule recovery to achieve completion of the drilled shaft work no later than October 31, 2019 and completion of the embankment no later than November 5, 2019.

This Contract provides for the installation of 575 rock filled drilled shafts, six (6) foot diameter and approximately 43,000 tons of gravel borrow earthwork embankment. The Contractor began shaft construction on 7/15/19 and started encountering rip rap obstructions on 7/26/19. The Contract does include the force account item “Removing Shaft Obstructions” and a notation in the plans that there were some surface quarry spalls in the vicinity of shaft construction. However, there was no reference or indication that the rip rap would be encountered within the shaft excavation. (photo attachment B) The APEO reviewed as-built plans of previous slope stabilization projects at this site and determined that a shear key component of a buttress was identified as light loose rip rap and was within the area of current shaft field to be constructed. The extent of the light loose riprap was not well quantified in the as-built drawings, and the Contractor encountered riprap 15' thick. The APEO estimated that approximately 75 of the project total of 575 shafts may contain rip rap obstructions. The APEO requested from Dave Ziegler, OR Construction, a determination of differing site conditions per Section 1-04.7. Dave Ziegler supported the request and forwarded it to Marco Foster, HQ Construction, on 7/30/19.

On 7/30/19 Marco Foster recommended that the APEO continue to track and pay the Contractor with the force account item “Removing Shaft Obstructions” and said if the impacts become significant, a change order would be appropriate to address the Contractor’s costs and schedule. Marco Foster also provided concurrence with the potential future change. Dave Ziegler provided concurrence with the same scenario on 7/31/19. (Attachment C)

On 8/19/19 the Contractor started using a second drill rig for shaft excavation attempting to increase the shaft construction production rate. The use of the second drill rig did not yield a significant increase because the small confined work site did not allow for movement and access of other supporting construction equipment necessary to complete the shaft construction. On 8/26/19 the Contractor notified the APEO the rip rap obstructions had significantly impacted their critical path scheduled activities of shaft construction and embankment. (Attachment D) The Contractor anticipated that at the current reduced production rate that the critical activities could extend into December of 2019 with that being contingent on little to no rainfall.

The APEO contacted the Engineer of Record (EOR) at the Geotech Office requesting guidance on what partial components of the design would need to be constructed and completed to stabilize the slope in order to suspend construction work during the rainy fall/winter season. The EOR stated that all of the shafts and embankment needed to be completed prior to the typical start of significant rainfall. Previous years records indicated that rainfall and slide activity started as early as November. The EOR stated that risk of total slope failure and loss of any work accomplished was very likely if the shafts and embankment were not completed by October 31, 2019.

The APEO notified OR Construction of the cost and schedule impacts from the rip rap obstructed shaft construction and it was determined that a change order was needed to compensate the Contractor for the added Work and time necessary to complete the shaft work and embankment prior to the rainy season.

Dave Ziegler, OR Construction and Patrick Glassford, HQ Construction approved the change on 10/2/19. Karen Boone, Project Engineer approved the change on 10/14/19. (attachment E)
Contract Number: 009430  
Contract Title: US 101/N of SR 107 Stabilize Slope  
Change Order Number: 02

Basis of Cost & Justification

The Contract did include the bid item "Removing Shaft Obstructions" force account but the magnitude of obstructions encountered was not considered in either the Engineer's estimate nor in the estimated number of working days. Once it was determined by the Geotechnical Engineer of Record that all shaft and embankment construction needed to be complete prior to heavy seasonal rains to avoid complete slope failure and loss of all previously constructed improvements, the Contractor could not have been expected recover the schedule delay within the established bid items.

The estimated costs for the added work related to the obstructions and the risks associated with forward pricing the work was $623,606 and the schedule recovery costs needed to complete the work by October 31, 2019 were estimated to be $163,592. The total costs to complete the work was estimated to be $787,198. (attachment F)

The Contractor proposal for the change order was $780,000 and was accepted.

Contract Time:

This change impacted the Contractor's critical path schedule and twenty (20) working days are added to the Contract.

Prior Approvals:

Approval to Proceed: Marco Foster, HQ Const. 7/30/19.
Approval to the Change Order: Patrick Glassford, HQ Const. 10/2/19.
Approval to the Change Order: Dave Ziegler, OR Const. 10/12/19.
Approval to the Change Order: Karen Boone, APEO 10/14/19.

List Attachments:

Attachment A: 1 pg. - checklist
Attachment B: 2 pgs. - photos
Attachment C: 4 pgs. - email, approval to proceed
Attachment D: 1 pg. - Contractor Notice
Attachment E: 1 pg. - email, change order approval
Attachment F: 11 pgs. - Engineer's estimate

Distribution:

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 Region
Original of Change Records & Change Order w/Backup - State Construction Office
WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER

DATE: 10/14/19
Page 1 of 4

CONTRACT NO: 009430
CONTRACT TITLE: US 101, N OF SR 107 STABILIZE SLOPE
CHANGE ORDER NO: 2 SHAFT OBSTRUCTIONS

PRIME CONTRACTOR: RQNIN'S, INC.
321 W STATE ST
98520-6143
ABERDEEN
WA 98520-0078

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

( ) Change proposed by Contractor

ENDORSED BY:

CONTRACTOR

DATE

SURETY CONSENT:

ATTORNEY IN FACT

DATE

ORIGINAL CONTRACT AMOUNT:

6,650,000.00

CURRENT CONTRACT AMOUNT:

6,679,273.40

ESTIMATED NET CHANGE THIS ORDER:

780,000.00

ESTIMATED CONTRACT TOTAL AFTER CHANGE:

7,459,273.40

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

RECEIVED
OCT 15 2019
ABERDEEN PEO

( ) APPROVAL RECOMMENDED

( ) EXECUTED

EXECUTED:

PROJECT ENGINEER

STATE CONSTRUCTION ENGINEER

DATE

DATE

( ) APPROVAL RECOMMENDED

( ) EXECUTED

OTHER APPROVAL WHEN REQUIRED

REGIONAL ADMIN:

SIGNATURE

DATE

REPRESENTING

CG02v04 (revised Feb 2005)
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:

Description of Work:
This change order provides compensation for additional effort associated with anticipated loose rip rap obstructions, and guaranteed completion of the shaft work and embankment as stipulated below.

Construction Requirements:
The Contractor shall take all necessary steps to install shafts as shown in the Plans, including handling of known loose rip rap encountered in an unspecified number of the shafts. Force account for additional efforts associated with loose rip rap obstructions will not be assessed for any Work performed on or after September 8, 2019, as any added effort is covered in this change order.

The Contractor shall complete all shaft Work no later than October 31, 2019 and complete all embankment Work shown in the Contract no later than November 5, 2019. The completion dates in the preceding sentence will not be adjusted, except as provided below for obstructions other than loose rip rap.

This paragraph stipulates the conditions that will establish when the Contractor will pay a disincentive to the Contracting Agency if the above completion dates are not met. If obstructions other than loose rip rap are encountered, obstruction time will be tracked and agreed upon daily between the Contractor and Inspector. For each calendar week, Saturday through the following Sunday, if the summation of the time spent on obstructions other than loose rip rap is less than 10 hours, the completion dates for the shafts and embankment will not be adjusted. If the weekly obstructions other than loose rip rap time exceeds 10 hours, the dates to complete shaft and embankment Work will be increased at half day increments for every ten hours of obstruction time beyond the first ten hours of obstruction time.

If shafts are not completed by October 31, 2019 plus days added for obstruction other than loose rip rap time as per the previous paragraph, the Contractor will pay the Contracting Agency a disincentive of $25,000 for each calendar day thereafter, until all shafts are completed. If the embankment is not completed by November 5, 2019, plus days added for obstructions other than loose rip rap time as per the previous paragraph, the Contractor will pay the Contracting Agency a disincentive of $5,000 for each calendar day thereafter, until the embankment is complete.

Measurement:
"CO No. 2 Obstruction Excavation" No specific unit of measurement shall apply to the lump sum item of obstruction excavation.
"CO No. 2 Schedule Recovery" No specific unit of measurement shall apply to the lump sum item of schedule recovery.

Payment:
"CO No. 2 Obstruction Excavation", lump sum.
The lump sum price for "CO No. 2 Obstruction Excavation" shall be full pay for all costs incurred by the Contractor in performing the installation of temporary casing and excavation of the loose riprap as described in this change order.

"CO No. 2 Schedule Recovery", lump sum.
The lump sum price for "CO No. 2 Schedule Recovery" shall be full pay for schedule recovery as described in this change order.

Time:
Twenty (20) working days are added to the Contract as a result of this change order.
## WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER

**CONTRACT NO:** 009430

<table>
<thead>
<tr>
<th>ITEM NO</th>
<th>GROUP NO</th>
<th>STD ITEM</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT MEASURE</th>
<th>UNIT PRICE</th>
<th>EST QTY CHANGE</th>
<th>EST AMT CHANGE</th>
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**TOTAL:** 780,000.00
### Change Order Checklist

**Cont. #:** 9430  |  **Cont. Title:** N of SR 107, Stabilize Slope  |  **If yes, State Construction Office Approval Required:**
---|---|---
**C.O. #:** 02  |  **C.O. Title:** Shaft Occlusions

#### I. Executed by the State Construction Office

1. Cost or credit equal to or exceeding $500,000. **°1, °3**
   - **Yes** ☑  **No**
2. Change in the contract documents beyond the scope, intent or terms of the original contract. **°2**
   - **Yes** ☑  **No**
3. Any proposed revision or deletion of work that affects the condition of award requirements. (Must be coded "CO" in CCIS, includes changes to goal or commitment)
   - **Yes** ☑  **No**
4. Change in contract time greater than 30 working days, or a change in contract time not related to any change order. **°1**
   - **Yes** ☑  **No**

#### II. Executed at the Region (Per Delegation)

5. Determination of impacts and/or overhead.
   - **Yes** ☑  **No**
   - **Yes** ☑  **No**
7. Material or product substitution. (Excludes materials associated with Std. Specification Sections 6-07, 8-01, 8-02, 8-12, 8-18 & 8-20)
   - **Yes** ☑  **No**
8. Structural design change in the roadway section. (Requires concurrence from designer)
   - **Yes** ☑  **No**
9. Determination of changed condition *(Section 1-04.7 of the Standard Specifications)*
   - **Yes** ☑  **No**
10. Settlement of a claim *(Section 1-09.11(2) of the Standard Specifications)*
    - **Yes** ☑  **No**
11. Repair of damage regarding "acts of God" or "acts of the public enemy or of government authorities" *(Section 1-07.13 of the Standard Specification)*
    - **Yes** ☑  **No**
12. Structural change to structures.
    - **Yes** ☑  **No**

**Approvals obtained:**

- **Project Engineer:** Karen Boone  |  **Date:** 10/14/2019
- **Region:** Dave Ziegler  |  **Date:** 10/2/2019
- **State Construction Office:** Patrick Glassford  |  **Date:** 10/7/2019

**Other (Local Agency, FHWA, Surety, etc.):**

**To be completed by the Project Engineer:**

- **CO Reason(s) (See "2006 Codes & Definitions" on State Construction Office web page):** AL 04 PM DP SA
- **Change Order Prepared By:** Kevin Dahl
- **Date:** 9/25/2019
- **Is this project under full FHWA stewardship oversight (Project Of Division Interest)?** °1  
  - **Yes** ☑  **No**

**To be completed by the Region:**

- **Is the change eligible for Federal participation where applicable?**  
  - **Yes** ☑  **No**
- **Change Order Reviewed By:**  
  - **Date:** 10/23/2019

**Note:**

- **°1** Change (Cost or Credit) greater than $200,000 or greater than 30 days on Projects Of Division Interest (PODI) requires FHWA approval. (see Construction Manual - Chapter 1-00.10, Chapter SS1-04.4, and State Construction Office web page)
- **°2** Per RCW 47.28.050, any change beyond $7,500 that is beyond the original scope shall go through the competitive bidding process.
- **°3** Engineering error changes over $500,000 requires reporting (See reporting instructions & template on State Construction Office web page)

This form represents the minimum information required by the State Construction Office. If you wish to supplement this information, you may do so on a separate sheet of paper.