



Oct. 13, 2015

TO: *mf* Marco Foster, PE MS 47354 / 360-705-7824  
THRU: *BN* Brian Nielsen, PE NB82-230 / 206-805-5426  
FROM: Paul E. Johnson, PE NB82-230 / 206-805-2920

SUBJECT: 007999 – SR99 Bored Tunnel Alternative Design-Build Project  
Federal-Aid No. BR-NH-STP-STPF-0099(111)  
CO# 113, TBM Access Shaft DSC - Interim

Attached for HQ execution is Change Order No. 113, "TBM Access Shaft DSC - Interim"

**DESCRIPTION:**

This interim Change Order compensates the Design-Builder (STP) for certain direct costs including allowable markups in accordance with Contract Section 11.9, incurred as a result of the Differing Site Condition (DSC) encountered during construction of the TBM Access Shaft (PCO#250B). Contract Time is not addressed in this Change Order.

This payment constitutes an interim payment which will require one or more future Change Orders after STP submits further information for WSDOT's evaluation, completion of WSDOT's audit of STP's overhead and finalizing negotiations on cost and Contract Time.

In accordance with Contract Section 5.7.6 - Change Orders for Differing Site Conditions, WSDOT will use the Shared Contingency Allowance to pay amounts owing to Design-Builder for DSCs. Contract Section 13.1 establishes the Shared Contingency Allowance as \$40 million. This Change Order will reduce the Shared Contingency Allowance by \$1,069,677.31.

**EVOLUTION OF CHANGE:**

On September 9, 2014, STP provided written notice to WSDOT of a DSC at the TBM Access Shaft. STP stated based on the boring logs from the piezometer installations within and outside the TBM Access Shaft, the actual conditions below the excavation base of the TBM Access Shaft are materially different from the conditions shown in the Geotechnical Baseline Report (GBR) and thus constitute a DSC.

Specifically, the GBR represents the soil beneath the excavation base of the TBM Access Shaft as containing a greater amount of cohesive material compared to that encountered during installation of STP's piezometer borings. STP's dewatering and depressurization system for the TBM Access Shaft was designed to depressurize the area below the access shaft. As a result of encountering less cohesive material than anticipated, STP redesigned their dewatering and depressurization system, adding wells and pumps.

After evaluation by WSDOT's Geotechnical Engineers, WSDOT determined that the actual conditions encountered at the access pit constituted a DSC for which STP is entitled to compensation.

Upon review of STP's Change Order Request (COR), WSDOT has evaluated the request for time and money and has determined there are certain direct costs that WSDOT can compensate STP for now, via

this interim Change Order. WSDOT has requested further information from STP to substantiate time and other costs. WSDOT is also continuing its review of STP's overhead rate which will eventually be applied to any Contract Time STP is entitled.

**ENTITLEMENT:**

In accordance with Contract Section 5.7.4, WSDOT has conducted its investigation of the identified conditions and has determined the conditions in fact constitute a Differing Site Condition and therefore STP is entitled to compensation.

**PRICING THE CHANGE:**

The Design-Builder submitted a COR for TBM Access Shaft DSC (PCO#250B) in the amount of \$6,795,038. This COR includes delay costs of eleven (11) days and direct support costs. WSDOT reviewed the COR and agrees to compensate STP for certain direct costs with markups incurred by STP to install the dewatering wells via this interim Change Order in one new lump sum item, "CO# 113, TBM Access Shaft DSC – Interim". WSDOT and STP continue to negotiate entitlement of Contract Time and other costs submitted in their COR.

**CONTRACT TIME:**

Contract Time will not be addressed in this change order. The Design-Builder has requested an eleven (11) day extension for the impacts associated with the DSC at the TBM Access Shaft. After review of STP's COR, which included a Time Impact Analysis (TIA), WSDOT determined the TIA as submitted did not meet the requirements of the Contract. WSDOT has requested STP prepare a revised TIA that meets the requirements of Contract Section 11.6.1.3. Upon receipt of the revised TIA, WSDOT will evaluate entitlement to Contract Time.

**APPROVALS:**

- Andy Walter, P.E., Asst. Contract Administrator, approved the change 10/1/15
- Brian Nielsen, P.E., Deputy Program Administrator, approved the change 10/1/15
- Marco Foster, P.E., HQ Construction, approved the change 10/1/15
- Anthony Sarhan, FHWA approved the change 10/2/15
- Diana McCreery, Business Group, gave funding concurrence 10/1/15


**ATTACHMENTS TO THE MEMO:**

- Change Order
- Change Order Checklist
- Engineer's cost estimate
- Approvals and concurrences listed above

If you have any questions, please contact Andy Walter at (206) 805-5452.

APW/ncb

cc: Project File

TBM 10-11-2015 

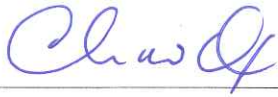
**WASHINGTON STATE  
DEPARTMENT OF TRANSPORTATION  
CHANGE ORDER**

DATE: 10/12/15  
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**CONTRACT NO:** 007999 **FEDERAL AID NO:** STP-BR-IM-0099(11)  
**CONTRACT TITLE:** SR 99, BORED TUNNEL ALTERNATIVE - DESIGN BUILD PRO  
**CHANGE ORDER NO:** 113 TBM ACCESS SHAFT DSC - INTERIM



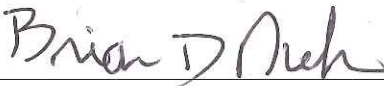
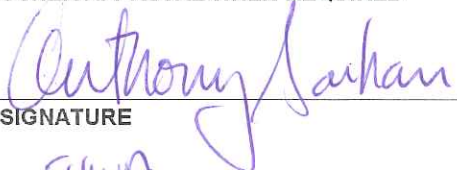
**PRIME CONTRACTOR:** SW0080679 SEATTLE TUNNEL PARTNERS  
 999 THIRD AVE STE 2424  
 SEATTLE WA 98104-4044

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

<b>ENDORSED BY:</b> 	<b>SURETY CONSENT:</b>
<b>CONTRACTOR</b>	<b>ATTORNEY IN FACT</b>
<b>DATE</b> 10/12/15	<b>DATE</b>

**ORIGINAL CONTRACT AMOUNT:** 1,089,700,002.00  
**CURRENT CONTRACT AMOUNT:** 1,113,396,665.17  
**ESTIMATED NET CHANGE THIS ORDER:** 1,069,677.31  
**ESTIMATED CONTRACT TOTAL AFTER CHANGE:** 1,114,466,342.48

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

<input checked="" type="checkbox"/> APPROVAL RECOMMENDED  PROJECT ENGINEER 10/13/15 DATE	( ) EXECUTED	<b>EXECUTED:</b>  STATE CONSTRUCTION ENGINEER 10/14/15 DATE
<input checked="" type="checkbox"/> APPROVAL RECOMMENDED REGIONAL ADMIN:  BY: 10/14/15 DATE	( ) EXECUTED	<b>OTHER APPROVAL WHEN REQUIRED</b>  SIGNATURE FHWA REPRESENTING 10/15/15 DATE <i>CC: [unclear] 10/15/15</i>



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CONTRACT NO: 007999

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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 interim Change Order compensates the Design-Builder for certain direct costs and clears any and all issues associated with the items shown on page 4 of this Change Order, including allowable markups in accordance with Contract Section 11.9, incurred as a result of the Differing Site Condition encountered during construction of the TBM Access Shaft (PCO#250B). One or more additional Change Orders will be issued to reconcile final resolution of time and costs.

**MEASUREMENT:**

No specific unit of measurement shall apply to the new lump sum item "CO# 113, TBM Access Shaft DSC Interim".

**PAYMENT:**

Interim payment for costs associated with PCO #250B shall be by the new lump sum bid item, "CO# 113, TBM Access Shaft DSC Interim" in the lump sum amount of \$1,069,677.31.

By Execution of this Change Order, the Shared Contingency Allowance established in Contract Section 13.1 is reduced by \$1,069,677.31.

**CONTRACT TIME:**

This Change Order does not address Contract Time. One or more additional Change Orders will be issued to reconcile final resolution of Contract Time.

**MISCELLANEOUS**

WSDOT's execution of this Change Order and payment of the lump sum bid item "CO# 113, TBM Access Shaft DSC Interim" in the amount of \$1,069,677.31 is an interim payment. It is anticipated that as the Design-Builder provides additional information for further evaluation of merit, WSDOT will issue one or more additional Change Orders providing full and final compensation for time and cost impacts related to PCO #250B.

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, associated with the direct cost shown on page 4 of this change order. 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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CONTRACT NO: 007999

CHANGE ORDER NO: 113

ITEM NO	GROUP NO	STD ITEM	ITEM DESCRIPTION	UNIT MEASURE	UNIT PRICE	EST QTY CHANGE	EST AMT CHANGE
<del>1108</del> 120	01		CO#113, TBM ACCESS SHAFT DSC - INTERIM	L.S.	0.00	0.00	780,864.44 ✓
<del>1108</del> 120	02		CO#113, TBM ACCESS SHAFT DSC - INTERIM	L.S.	0.00	0.00	288,812.87 ✓

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1,069,677.31  
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**WASHINGTON STATE  
DEPARTMENT OF TRANSPORTATION  
CHANGE ORDER**

DATE: 10/2/2015

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**CONTRACT NO: 007999**

**CHANGE ORDER NO: 113**

PCO 250B Access Shaft DSC\_Allowable Direct Costs from Change Order Request (COR)

Cost Elements	Description	Allowable Direct Costs*	COR page ___ of 344
<b>Subcontractors</b>			
Malcolm	Additional Dewatering Wells/ pumps	\$825,029.00	306
US Electric	Run power to new wells / pumps (incurred to date)	\$174,669.42	312
	Markup at 7%	\$69,978.89	
	<b><u>CO#113 TOTAL</u></b>	<b><u>\$ 1,069,677.31</u></b>	

\*The Allowable Direct Costs listed above are from the Design-Builder's COR transmitted as S-G-COR-TUN-CR05-00304-19. The COR pages listed above are included in this Change Order, as Pages 5 thru 6 of 6, and are included to specifically identify the Allowable Direct Costs included in this Change Order.



Change Order Number 013

**CONTRACT** 007999

**CHANGE ORDER** 113

**SHEET** 5 **OF** 6

Contractor Job Number 007999
Subcontract Number 2395-02
Date of Subcontract 2/6/2012
Owner Change Order Number NA

Contractor: Seattle Tunnel Partners, A Joint Venture  
 Project: SR 99 Bored Tunnel Project, Seattle, Washington  
 Subcontractor: Malcolm Drilling Company, Inc.  
 Contract Description: South Portal Dewatering

Pursuant to and subject to the terms and conditions of the above referenced Subcontract, Subcontractor is directed to make the following changes in the Work:

Installation of (4) Dewatering Wells @ 200' at the Access Shaft – DDW1, 2, 3, and 4 (Figure 1 – Bender Consulting), (4) Additional Dewatering Pumps and (3) Silt Pump / Wells @ 153' (Figure 2 – Bender Consulting). Locations Drawing SH-70 – Access Shaft

**2395 - Malcolm Drilling**

**Change Order 13**

Bid Item	DESCRIPTIONS	Cost Code	U/M	UNIT PRICE	QTY	COST
30	Install (4) EA 200' Dewatering Wells at Locations DW1, 2, 3, and 4 – Access Shaft	826.826.8260055-S	EA	\$132,399.00	4.0	\$529,596.00
31	(4) Dewatering Pumps.	826.826.8260055-S	EA	\$6,375.50	4.0	\$25,502.00
32	Addition of (3) Silt Pump / Wells	826.826.8260055-S	EA	\$89,977.00	3.0	\$269,931.00
<b>TOTAL CHANGE ORDER NO.013</b>						<b>\$825,029.00</b>

Scope of Work:

- File Notice of Intent to Construct a Dewatering Well with Department of Ecology.
- Use crawler – mounted drill rig that is currently onsite, Mobilize AT forklift, backhoe and various drill tools to the site.
- Drill up to 4 each 1 meter holes up to 200' feet deep +/- . Wells to be constructed per Figure 1. Each well will include one pump that has been agreed to with Scott Bender and two backup pumps of the same size.
- Drill up to 3 EA, 1 meter holes up to 153' feet deep. Wells will be constructed per Figure 2. The three wells will include a pump and control box that match the pumps that are already being used onsite.
- Provide 4 additional two stage 5HP pumps and one spare control box to be used as backup.
- Provide and install Gravel/Sand filter material, temporary bentonite or concrete surface seal as shown in Figure 1 and 2.
- Abandon wells and remove system when no longer in use.

Special Conditions:

- This Change Order is to install 4 EA 200' Wells and 3 EA 153' Wells with pumps, control boxes and flex hose from the top of the wells to within 50' from each well head. All power, discharge piping, meters, associated parts, monitoring and maintenance will be the responsibility of STP.
- MDCI expects all utilities to be removed and relocated to proper areas away from the work zone as not to damage them do to construction activities and compressive soils do to the use of drilling equipment. MDCI accepts no responsibility for damaged utilities in the work zone, and expects STP to protect and monitor all utilities during our work.
- Access must be provided to walk directly from location to location. If equipment has to be broken down to move, additional charges will apply.
- Malcolm expects to have continuous drilling without interruption and pauses in the drilling. Any pauses in drilling will constitute standby charges.
- Work days shall consist of: Monday – Saturday, 6AM to 6PM, Sunday's and Holidays will be non-working days.
- All previously installed wells are to be protected in place by STP. Any damages to the existing wells, except do to the negligence of MDCI, will be repaired and replaced at STP's expense.

US Electric Additional Dewatering PCO #250B				REVISED CONTRACT VALUE		
ITEM NO.	DESCRIPTION OF WORK	COST CODES	UNIT	QTY	UNIT PRICE	Extended Contract Value
15	Monitoring for Each 4x Additional Wells	826.826.8260060-S	LS	1.00	\$31,526.08	\$31,526.08
16	5x Pressure Transducers 300'	826.826.8260060-S	LS	1.00	\$8,505.00	\$8,505.00
17	Access Shaft Dewatering Well Power Expansion	826.826.8260060-S	LS	1.00	\$95,993.76	\$95,993.76
18	Access Shaft Monitoring for Each 3x Additional Wells	826.826.8260060-S	LS	1.00	\$23,644.58	\$23,644.58
19	Access Shaft Dewatering Well Level Transducers	815.815.8152250-S	LS	1.00	\$15,000.00	\$15,000.00
XXX	Future Cost Additional Flow meters and other miscellaneous costs, anticipated at 20% of to date costs					\$34,933.88
<b>TOTAL</b>						<b>\$209,603.30</b>

CONTRACT 007999  
 CHANGE ORDER 113  
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