

## CMB Meeting Minutes #147

DATE: November 08, 2013

MEETING DATE: **November 06, 2013**

LOCATION: 821 Howard St, Main Conference Room

TIME: 3:00 PM

ATTENDEES: J Funghi (JF), A. Hoe (AH), R. Redmond, M. Latch (ML), (RR), M. Benson (MB), J. Park (JP), T. DePooter (TDP), B. Kelleher (BK), R. Nguyen (RN), S. Wilson (SW), E. Stassevitch (ES), B. Ward (BW), L. Zurinaga (LZ ), B. Lebovitz (BL)

COPIES TO: Attendees: S. Farhangi (SF), M. Henry (MH), K. Shah (KS), J. Wang (JW), V. Chow (VC), J. Xia (JX), S. Espinal (SE), R. Hansen (RH), D. Kuehn (DK)  
File No. M544.1.5.0890

REFERENCE Project No. M544.1, Contract No. 149 Task 1-8.02

SUBJECT: Configuration Management Board Meeting # 147 – Rev. No. 0

### RECORD OF MEETING *(Italicized text indicates status update of open items)*

ITEM #	DISCUSSION	ACTION BY DUE DATE
1- 10/16/13	1252 - S. Wilson presented <b>COR 102</b> Jet Grout Column 18 DSC at UMS South Headwall evaluation of merit and cost comparison sheet and to request negotiation position. The costs represent relocating the drill rig twice, after encountering an unknown obstruction 10 feet below the surface. An investigation determined the obstruction encountered was due to pile caps from micropiles installed during 1251 Contractor work, which were not installed at the correct location. The 1251 Contractor has been put on notice that SFMTA intends to seek compensation from Synergy for any and all costs associated with installation of incorrectly positioned micropiles. The CMB requested the CM Team to determine if the Contractor received as built information before they began operations. The CMB also suggested a better graphic which shows exactly where the headwall control line is located. No action was taken by the CMB; this item will be brought back to the CMB at a later date. <i>Status: 11/06 This item was not discussed at the meeting.</i>	SW 11/13/13
1-	1252 – S. Wilson presented <b>COR 009 MOS</b> – Impacts due to SFWD low psi water line - evaluation of partial merit and a cost comparison sheet for approval of negotiated amount already agreed to by the Contractor. The Contractor was instructed by SFWD excavate to expose an 8” live waterline, so a cap could be installed. In doing so, the first three kill holes exposed were incorrect. A fourth kill hole was excavated by the Contractor which was acceptable by SFWD. The CMB <b>agreed to partial merit</b> for costs associated with excavating two additional “kill holes” for the Not To Exceed amount of \$5,727.00	
2-	1252 – S. Wilson presented <b>COR 017</b> – Impacts @ North and South Headwalls due to live utilities. Contractor discovered live utilities at the north and south headwalls. Contract drawings indicate all utilities were abandoned, which prevented the Contractor from	SW 11/20/13

ITEM #	DISCUSSION	ACTION BY DUE DATE
	performing planned utility demolition. Evaluation of merit and cost comparison sheet for approval of negotiated amount agreed to by the Contractor. The CMB <b>agreed to partial merit</b> approval and a cost Not To Exceed amount of \$43,219.00. A letter will be sent to all utilities requesting reimbursement for cost through the Form B process.	
3-	1252 – S. Wilson presented <b>COR’s, 32, 34, 42, 43, 62, 65 and 67</b> all pertaining to cost associated with work to the impacted Slurry wall panels at the launch box. <b>AGREE – CMB 0136, 0137, 0138, 0139, 0140, 0141, &amp; 0145</b> , – for a total combined value Not To Exceed value of \$234,438.07 (see attached). In addition the Contractor is also asking for a time extension of seven (7) calendar days, which has been found to have <b>No Merit</b> based upon the SFMTA time - savings for expediting the approval of a critical path submittal. The CMB was not in agreement with the methodology used to reach the engineers estimate for the negotiated price for each COR. The CMB requested a time impact analysis be done and provided to the Contractor to demonstrate how SFMTA saved the Contractor time; to include time-savings and cost saving for premium time.	SW/AA 11/20/13
4-	1252 – S. Wilson requested approval for additional funds for <b>COR 79</b> to cover the remaining cost associated with compensation Grouting work at Old Navy - Part 1 - Potholing, Comp Grout Redesign, Restoration, and Part 2 -15 days of Equipment standby costs for drilling equipment and grouting equipment, to close out the contract modification. Approval for part 3 - Mobilization, retrofits, demobilization of drill rig and part 4 - Drilling inefficiencies cost were approved by the Board under CMB change #116 for \$70K and change #117 for \$152K. <b>AGREE – CMB 0142</b> . The CMB suggested the CM Team should request the Contractor to submit supporting documentation to demonstrate their standby time.	
5-	1252 – Discussions took place regarding the Tunneling Interface schedule – A graphic was presented for information showing the interface schedule between CN1252 and CN1300 to notify the Board of the depleting number of days before the 1300 Contractor will need to have access to the tunnel to complete cross passages 1 & 2, due to the 1252 Contractor falling behind in the tunnel boring daily progress. The CMB agreed that the schedule will be monitored during the Monday Program Management meetings as an agenda item.	
6	1300 – T. DePooter requested approval for additional potholing to explore variations of ways to the installation of a cross-connect for waterline work needed for Water Distribution Adjustments at CTS at the intersection of Washington and Stockton Streets. The CMB was agreement to generate a PCC to forward to the Contractor to submit a cost proposal	
7	1300 – R. Redmond presented a graphic to show CSDG (DP2) Task #16 Design Services-cost expended to date. The authorized six-month budget demonstrates that within a two month period subtask 16.30M Construction Phase Project Mmgt. and Admin budget is being burned a little quicker than desired and other subtask items are on track for what was anticipated. The Designer has been notified of the percentage burn rate for task 16.30M.	
8-	The Program Trend/Change Control Log dated 11/06 was reviewed. Two new items were added this week to the 1252 Contract trend log, Trends #128 Acceleration of Work Activities at Retrieval Shaft & #129 UMPs on 96-inch Sewer.	

**ACTION ITEMS**

ITEM #	MTG DATE	MTG ACTION DATE	DESCRIPTION	BIC	DUE DATE	STATUS
8	04/03/13	04/03/13	1252 – DP1 – Design Services hours and cost during construction – DP1 Review	MB	11/20/13	Open
8	07/24/13	07/24/13	1252 – Breakdown of Bid Item GE-3	MB	11/20/13	Open
2	08/14/13	08/14/13	1252 – CMod #8 (PSI strength) – Statement of occurrence post meeting record of approval which overrode CMB direction	SW	11/20/13	Open
1	08/28/13	08/28/13	1252 – Outstanding COR's – status update	SW/MB	11/20/13	Open
2 & 3	08/28/13	08/28/13	1252 – COR 97 & 98 – gravel encountered action plan from Engineering of Record (DP1)	SW/MB	11/20/13	Open
5	08/28/13	08/28/13	1252 – Action plan of execution for the Slip Lining Work (Stockton/Columbus)	SW	11/20/13	Open
4	09/25/13	10/02/13	1252 – Efforts to offset Cost for DP2 Budget Increase Task 16	SW	11/20/13	Open
4	09/25/13	10/02/13	1252 – COR #104 - Additional Sewer Slip Lining – SFPUC Response	SW	11/20/13	Open
5	09/25/13	10/02/13	1300 – PCC CTS 0001 - Contractor Cost Proposal	TDP	11/20/13	Open
2	10/09/13	10/09/13	1252 – Design Clause - confirmation of existing contract language in CN 1252 and CN 1300 regarding existing conditions related to utilities	JW/AH	11/20/13	Open
1	10/16/13	10/16/13	1252 – COR 102 - Graphic showing the location of the headwalls control line	SW	11/20/13	Open
5	10/16/13	10/16/13	1300 – IRL - COR's 5, 23 & 85 Ltr to Contractor	RR	11/13/13	Open
3	10/23/13	10/23/13	1252 – PCC 014 - Contractor Cost Proposal	JW/SW	11/20/13	Open
1	10/23/13	10/23/13	1300 – Ltr. to TPC – Tutor's Bid item for the Steel	RR/NH	11/20/13	Open
1	10/23/13	10/23/13	1300 – Ltr. to PB – Validation of availability of steel in USA during bid	RR/NH	11/20/13	Open
4	10/23/13	10/23/13	1300 – COR 05 - Revisit IRL process with Contractor	RR	11/20/13	Open
4	10/23/13	10/23/13	1300 – PCC CTS 0004 – Contractor Cost Proposal	TDP	11/20/13	Open
2	11/06/13	11/06/13	1252 - COR 017 – Notify utility of cost as Form B bill update under CN1250 or CN1251	SW	11/20/13	Open
3	11/06/13	11/06/13	1252 – Slurry Wall Panels – TIA to be sent to BIH – SFMTA's time savings and premium cost saving time	SW/AA	11/20/13	Open

Meeting adjourned at 5:45pm

These meeting minutes have been prepared by B. Ward and reviewed by, E. Stassevitch and are the preparer's interpretation of discussions that took place. If the reader's interpretation differs, please contact the author in writing within four (4) days of receipt of these minutes. (4) days of receipt of these minutes.

Signed:  [initials of preparer & reviewer] Date: 08 Nov 13 [Date review completed]

## Meeting Agenda

**Project No. M544.1, Contract No. CS-149**  
**Program/Construction Management**  
**Configuration Management Board (CMB) Meeting No. 147 Rev 1**  
**November 06, 2013**  
**3:00pm – 5:00pm**  
 Central Subway Project Office  
 821 Howard St. 2<sup>nd</sup> Floor  
 Main Conference Room

**Attendees:**

Mark Benson	Melvyn Henry	Roger Nguyen	Beverly Ward
John Funghi	Jim Kelly	Richard Redmond	Luis Zurinaga
John Haley	Mark Latch	Kartik Shah	
Albert Hoe	Brad Lebovitz	Eric Stassevitch	

1. **1252** – COR 009, MOS -Impacts due to SFWD low psi water line - *Merit/ Cost NTE*
  - COR 017, MOS - Impacts @ North and South Headwalls due to live utilities - *Merit/Cost NTE*
  - COR 032, LB - Panel W29 Wood Pile - *Cost NTE*
  - COR 034, LB - Panel W28 Wood Pile - *Cost NTE*
  - COR 042, LB - Panel W25 Wood Pile - *Cost NTE*
  - COR 043, LB - Panel W30 Wood Pile - *Cost NTE*
  - COR 062, LB - Panel P-9 Buried Obstruction - *Cost NTE*
  - COR 065, LB - Panel P-12 Buried Obstruction - *Cost NTE*
  - COR 067, LB - Panel P-10 Buried Obstruction - *Cost NTE*
  - COR 079, Comp Grout - Old Navy - *Cost NTE*
  - 1252 Tunnels Schedule Update - *Review*
  
2. 1300 – CSDG (DP2) Task #16 Design Services during Construction - Cost to date – *Information*
  - Water Distribution Adjustments at CTS – *Information*
  
3. **Trend/Change Log** – CN1252 - Two New Items: 1) Acceleration of Work Activities at Retrieval Shaft  
 2) UMPs on 96-inch Sewer
  
4. **Other Business** – Action Item – CN 1252 IRL Process - COR Denial

5	10/16/13	10/16/13	1300 - IRL - COR's 5, 23 & 85 Ltr to Contractor	RR	11/06/13	Open
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## Meeting Attendance Sheet








**Project No. M544.1, Contract No. 149**  
**Program/Construction Management**  
**Configuration Management Board S Meeting No. 147**  
**November 06, 2013**  
**3:00 p.m. – 5:00 p.m.**  
 Central Subway Project Office  
 821 Howard, 2<sup>nd</sup> Floor  
 Main Conference Room

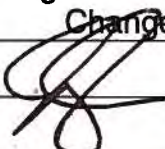


*Deliver Meeting Attendance Sheet with original signatures/initials to Document Control.*

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS
Please enter initials if your name is listed below. Please enter name, affiliation, phone number and email address if your name is not listed below.				
Benson, Mark	CSP	(415) 238-0996	Mark.Benson@sfmta.com	MB
Chow, Vivian	SFMTA	(415) 701-5264	Vivian.chow@sfmta.com	
DePooter, Ted	CSP	415 701-5295	Ted.DePooter@sfmta.com	TRD
Farhangi, Shahnam	SFMTA	(415) 554-0721	Shahnam.Farhangi@sfmta.com	
Funghi, John	SFMTA	(415) 701-4299	John.Funghi@sfmta.com	JF
Haley, John	SFMTA		John.Haley@sfmta.com	
Henry, Melvyn	SFMTA	(415) 701.5719	Melvyn.Henry@sfmta.com	
Hoe, Albert	SFMTA	(415) 701-4289	Albert.Hoe@sfmta.com	
Kelleher, Brian	SFMTA	(415) 701-5289	Brian. Kelleher@sfmta.com	BK
Kelly, Jim	SFMTA		Jim.Kelly@sfmta.com	
Kuehn, David	STV/PMOC	(510) 464-8053	David.kuehn@stvinc.com	
Latch, Mark	CSP	(415) 701-5294	Mark.Latch@sfmta.com	MDL



# central subway

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS
Lebovitz, Brad	STV/PMOC	(510) 464-8052	Bradley.lebovitz@stvinc.com	
Nguyen, Roger	SFMTA	(415) 701-4312	Roger.Nguyen@sfmta.com	RN
Park, Joon	SFMTA	(415) 701-4742	Joon.Park@sfmta.com	+
Redmond, Richard	CSP	(415) 701-4288	Richard.Redmond@sfmta.com	
Shah, Kartik	SFMTA	(415) 701.5678	Kartik.Shah@sfmta.com	
Stassevitch, Eric	CSP	(415) 701-4426	Eric.Stassevitch@sfmta.com	
Vilcheck Mark	CSP	(415) 701-4293	Mark.Vilcheck@sfmta.com	+
Wang, Jane	SFMTA	(415) 701-4287	Jane.Wang@sfmta.com	
Ward, Beverly	CSP	(415) 701-5291	Beverly.Ward@sfmta.com	
Wilson, Sarah	CSP	(415) 243-0950	Sarah.Wilson@sfmta.com	
Zurinaga, Luis	SFCTA	(415) 716-6956	Luis.zurinaga@sfcta.org	
	<p data-bbox="462 1255 1291 1459"><i>J. Park, A. Hoe &amp; M. Vilcheck were all in attendance, but did not sign in.</i></p>			
				

GENERAL			
Proposed Change Sponsor:	S. Wilson	Received by CMB: <u>11/06/2013</u> (Date)	
Affected Disciplines:	<u>Utility</u> <u>Excavation and Ground Support</u>		
Impacts of Change	Impacts due to SFWD low psi water line		
	Change Order Request (COR 09) Amount Not To Exceed \$5,727.00		
<b>Contract(s) Directly Affected by this Proposed Change:</b>			
1250 1 <input type="checkbox"/> (CP01)	1251 2 <input type="checkbox"/> (CP02)	1252 3 <input checked="" type="checkbox"/> (CP03)	
1253 4 <input type="checkbox"/> (CP04)	1254 5 <input type="checkbox"/> (CP05)	1255 6 <input type="checkbox"/> (CP06)	
		1256 7 <input type="checkbox"/> (CP07)	
CONFIGURATION MANAGEMENT BOARD APPROVALS			
	Signatures		
	Agree with the Change	Disagree with the Change	Date
Program Director:			11-6-13
Deputy Program Manager:			
PM Project Services:			
PM Project Construction:			11/8/13
SFMTA O & M Manager:			
SFMTA Safety and Security			
SFCTA PMO			6 Nov 13
	Comments		

**Negotiated Cost Summary**

**General Scope:**

Costs associated with excavating two additional "kill-holes" per the direction of SFWD on 06/20/12 and 06/21/12 at the Moscone south headwall.

**Date of standby:**

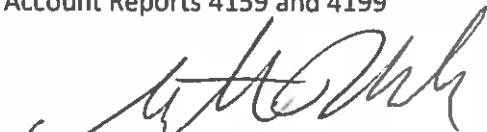
6/20/2012 and 6/21/2012

**Total Amount**

\$ 5,727

**List of attached documents:**

- Labor and Equipment Breakdowns
- SFMTA Cost Analysis
- Force Account Reports 4159 and 4199

  
Prepared By: Matt Hembd Date: 11/01/13

  
Checked By: Ben Volberding Date: 11/1/13



Active Hourly rates:

Activity Description	Date	FA Tag	Days	Operator G3 - Rene Torres	Laborer G3 - Thurman McGowan	Laborer G3 - Juan Macias	Laborer G3 (Driver) - Anthony Fuller	Operator G3 - Manny Ramirez	Laborer G3 - Sergio Hurtado	Labor Totals	Foreman Truck	Backhoe JD 310G	Mini Excavator - Bobcat 763	Road Signs	Changeable message sign	Arrow Boards	Triton Barriers	Steel Plates (small)	Equipment Totals			
Dig for 8" water line on 4th/Folsom	6/20/2012	4195	1			1		1	1	\$ 1,332.40	1	1	1	6	1	2	48		\$ 1,836.16			
Dig for 8" water line on 4th/Folsom	6/21/2012	4199	1		0.75			0.5		\$ 566.68	0.75		0.75	4.5	0.75	1.5		8	\$ 831.26			
			8	hrs./day																	\$ 1,899.08	\$ 2,667.42

Labor	\$	1,899.08
Material	\$	-
Equipment	\$	2,667.42
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	684.98
1st Tier Sub Bond/Insurance - 2.14%	\$	112.38
<b>SPM Subtotal</b>	<b>\$</b>	<b>5,363.86</b>
Prime - Markup - 5%	\$	268.19
Prime - Bond/Insurance - 1.68%	\$	94.62
<b>Total Amount</b>	<b>\$</b>	<b>5,726.67</b>

Notes: Engineer's Estimate (EE) uses labor and equipment hours as documented by the SFTMA. EE also uses approved labor and equipment rates per General Provision Article 6.04.

	Activity Description	Days (C)	Contractor (C)	Negotiation Results	Negotiated Amount
<b>Subcontractor (SPM)</b>					
<b>Labor</b>	<b>Direct Costs</b>				
	FA No. 4196 - 6/12/12 - Water line strike clean up	0.63	\$ 1,082	Costs excluded from Negotiated Amount. No water break costs included.	\$ -
	FA No. 4188 - 6/18/12 - Excavation for water line	0.38	\$ 500	Same as above	\$ -
	FA No. 4193 - 6/19/12 - Pothole @ water kill hole	0.69	\$ 1,190	Costs excluded from Negotiated Amount, original "kill-hole" is incidental to the work.	\$ -
	FA No. 4195 - 6/20/12 - Dig for 8" water line on 4th/Folsom - 3rd kill hole	1.00	\$ 1,332	Contractor costs accepted	\$ 1,332
	FA No. 4199 - 6/21/12 - Dig for 8" water line on 4th/Folsom - 4th kill hole	1.00	\$ 768	Cost reduced as Manny Ramirez only worked 4 hrs. not 7 as shown in Contractor's proposal.	\$ 567
<b>Equipment</b>	<b>Direct Costs</b>				
	FA No. 4196 - 6/12/12 - Water line strike clean up	0.63	\$ 1,926	Costs excluded from Negotiated Amount, potholing is incidental to the work.	\$ -
	FA No. 4188 - 6/18/12 - Excavation for water line	0.38	\$ 907	Same as above	\$ -
	FA No. 4193 - 6/19/12 - Pothole @ water kill hole	0.69	\$ 1,488	Costs excluded from Negotiated Amount, original "kill-hole" is incidental to the work.	\$ -
	FA No. 4195 - 6/20/12 - Dig for 8" water line on 4th/Folsom - 3rd kill hole	1.00	\$ 1,836	Contractor costs accepted	\$ 1,836
	FA No. 4199 - 6/21/12 - Dig for 8" water line on 4th/Folsom - 4th kill hole	1.00	\$ 831	Same as above	\$ 831
	Materials		\$ -		\$ -
	Subcontractor's		\$ 120	Costs not included in FA No. 4195 or 4199	\$ -
	<b>Total Subcontractor Direct Costs</b>		\$ 11,978		\$ 4,567
	Markup on 2nd Tier Sub - 5%		\$ 6		\$ -
	1st Tier Sub OH&P - 15%		\$ 1,779		\$ 685
	Subcontractor's Bonds and Insurance		\$ 295		\$ 112
	<b>Total Subcontractor Costs</b>		\$ 14,058		\$ 5,364

Activity Description	Days (C)	Contractor (C)	Negotiation Results	Negotiated Amount
Prime - Markup - 5%		\$ 703		\$ 268
Contractor's Bonds and Insurance		\$ 248		\$ 95
<b>Total Amount</b>		\$ 15,008		\$ 5,727
			<b>RE Recommended Negotiated Amount</b>	\$ 5,727

PROJECT NO. CN 1252  
 PROJECT NAME: Central Subway Tunnels  
 CONTRACTOR: Synergy Project Management, Inc.

REPORT NO. 4195

DATE PERFORMED 6/20/12

DATE OF REPORT 6/20/12

The following work was performed this date requiring the use of the Labor Force, Materials, Equipment, Special Forces and Services listed herein:

Work Description: Dig for 8" water line @ corner of 4th & Jolsom per CM/SA direction

NAME (FIRST, LAST)	HOURS	
	ST	OT
Manny R.	8	
Juan M.	8	
Sergio H.	8	
	ST	
	OT	
	ST	
	OT	
	ST	
	OT	

Material	Q/U	Comments

Services/Subcontractor	Q/U	Comments

EQUIPMENT DESCRIPTION	Quantity	Active	Standby
<del>NO BREAKER</del> ckho w/Breaker	1	8	
Mini Excavator	1	8	
Large Excavator			
Dump Truck			
End Dump			
Foreman's Truck	1	8	
Tool/Fuel Truck			
Sawcutter w/ Truck			
Sawcutter w/ Truck			
Traffic Control @ Intersection Athe Jolsom	1	8	
Traffic Control @ Street			
Triton Barriers	48	8	

EQUIPMENT DESCRIPTION	Quantity	Active	Standby
Steel Plates			
Shoring			
Generator			
Air Compressor			

Impacted/Delayed Equipment	Q/U	Comments

Does owner want to demobilize equipment? Yes No

Notes:

SFMTA Inspector was called before work was commenced?

Daily Force Account Report was filled out at the end of the day the work was performed?

SFMTA signature below acknowledges verification of labor, equipment, material, and service/subcontractor hours and quantities only. Costs and contract allowability are subject to review and confirmation for compliance with contract terms and scope of work. Any costs determined not to be allowable for payment shall be deducted from the report prior to final resolution.



Shannon Cuno 6/20/12  
 Prepared by Date  
 for Ken Alexander

Rafael Fernandez 6/20/12  
 SFMTA Engineer/Inspector Date



PROJECT NO. CN 1252  
 PROJECT NAME: Central Subway Tunnels  
 CONTRACTOR: Synergy Project Management, Inc.

REPORT NO. 4199

The following work was performed this date requiring the use of the Labor Force, Materials, Equipment, Special Forces and Services listed herein:

DATE PERFORMED 6/21/12  
 DATE OF REPORT 6/21/12

Work Description: Dig for 8" waterline @ intersection of 4th & Jolsom per MTA direction. Removed plates, water hole, set up traffic controls & take down f.c. 1 man for stand by waiting on water department

NAME (FIRST, LAST)	HOURS
Manny R	ST 4
Juan	ST 6
<del>Sergio</del>	ST 4
<del>Ken Alexander</del>	ST 2
	OT
	ST
	OT
	ST
	OT

Material	Q/U	Comments

Services/Subcontractor	Q/U	Comments

EQUIPMENT DESCRIPTION	Quantity	Active	Standby
Jackhoe w/Breaker			
Mini Excavator	1	6	
Large Excavator			
Dump Truck			
End Dump			
Foreman's Truck	1	6	
Tool/Fuel Truck			
Sawcutter w/ Truck			
Sawcutter w/ Truck			
Traffic Control @ Intersection 4th Jolsom	1	8/6	
Traffic Control @ Street			
Triton Barriers			

EQUIPMENT DESCRIPTION	Quantity	Active	Standby
Steel Plates	8	8	
Shoring			
Generator			
Air Compressor			

Impacted/Delayed Equipment	Q/U	Comments

Notes: **\* DID NOT WITNESS ANY DIGGING, STOOD BY FOR MEASURE FOR FABRICATION BY SEWD. #**

SFMTA Inspector was called before work was commenced?  Yes  No  
 Daily Force Account Report was filled out at the end of the day the work was performed?  Yes  No  
 SFMTA signature below acknowledges verification of labor, equipment, material, and service/subcontractor hours and quantities only. Costs and contract allowability are subject to review and confirmation for compliance with contract terms and scope of work. Any costs determined not to be allowable for payment shall be deducted from the report prior to final resolution.

Prepared by: Spanner (2170) 12/21/12 Date: 12/21/12  
 For: Ken Alexander

SFMTA Engineer/Inspector: Gabriel Fernandez Date: 6/22/12



**BARNARD  
IMPREGILO  
HEALY** JOINT VENTURE

## BARNARD IMPREGILO HEALY JOINT VENTURE

420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822  
CONTRACT 1252: Third Street Lightrail Program Phase 2 - Central Subway Project

9/17/2013  
Revised

**COR 009: MOS - Impacts due to SFWD low psi water line**

### Conflict - T&M Mark-up Summary

Direct Costs	Total
Labor	\$0.00
Labor Markup at Specified 15%	\$0.00
Equipment	\$0.00
Equipment Markup at Specified 15%	\$0.00
Materials	\$0.00
Materials Markup at Specified 15%	\$0.00
Other Items And Expenditures	\$0.00
Other Items And Expenditures Markup at Specified 15%	\$0.00
Subcontractors	\$14,057.60
Contractors Markup at Specified 5%	\$702.88
<b>Total Project Costs</b>	<b>\$14,760.48</b>
 BIHJV Payment & Performance Bonds & Builder's Risk Insurance (1.68%)	 \$247.98
 <b>Total Amount</b>	 <b>\$15,008.46</b>

Record of Negotiation:

SFMTA to cover the following tags.

FA Tag 4195

FA Tag 4199

Final cost to be verified.

\$5851.62

BH

SFMTA

10/22/13

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

## EVALUATION OF MERIT

### COR 009

**Recommendation:** Accept partial justification of Merit for COR 009, MOS – Impacts due to SFWD low psi water line. Accept costs associated with excavating two additional “kill-holes” per the direction of SFWD on 06/20/12 and 06/21/12 at the Moscone south headwall. Do not accept costs for locating/potholing for the original contract “kill-hole” or work associated with the water line break which occurred on 06/12/13. There is no time extension requested or recommended for this work.

**Facts:** The Contractor struck and damaged a live low pressure 8” water line using an excavator. The water line was shown to be previously abandoned within the Contract drawings, specifically drawings UD-402 Rev.0, UD-403 Rev.1 and UD-404 Rev.0. The SFWD was notified and arrived on site to make the repair. SFWD put a temporary repair on the line and the contractor exposed more of the 8” line to allow the SFWD to come and install a cap per contract drawing WD-404 Rev.0.

The first “kill-hole” location that was exposed was mistakenly placed by the Contractor. The second and third locations were mistakenly placed by the SFWD. The Contractor was directed by the SFWD to excavate a fourth “kill-hole” at which point an acceptable location was found.

**Justification:** The Contractor was instructed by the SFWD to assist them in excavating so the SFWD could install a cap on the live water main; however, the first three “kill-holes” were installed in incorrect locations.

Costs for excavating the first location are not being considered for compensation, or requested by the Contractor, as the Contractor has admitted to mistakenly placing the hole. Although directed by the SFWD, costs for excavating the second hole, are also not being considered for compensation due the fact that excavating one properly placed “kill-hole” is considered incidental to the work.

Costs for assisting the SFWD in excavating the third and fourth “kill-holes”, as performed on 06/20/12 and 06/21/12, are being considered for compensation as only one location was required to perform the work.

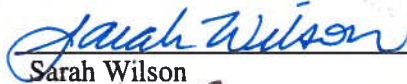
Costs incurred by the Contractor as a result hitting the water main on 6/12/12 are not considered for compensation as the Contractor did not uncover the utility in a safe manner or in compliance with the Contract requirements. Contract Specification 02 30 00 (Subsurface Investigation) Article 3.01 C requires that the contractor dig exploratory holes by hand or by other means and methods, which ensure no damage to existing underground facilities. In this case the Contractor used an excavator to dig the holes.

**Change Type:** (7) Other

**SFMTA Contract No. 1252**

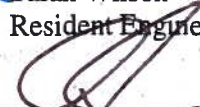
**Contractor:** Barnard Impregilo Healy JV (BIH)

By:



Sarah Wilson  
Resident Engineer

11/06/13  
Date

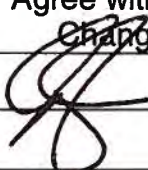
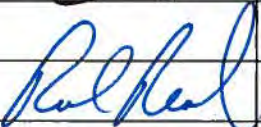

  
Configuration Management Board  
Approval

11-6-13  
Date



**CMB Change No.: CMB - 144**

**Initial Implementing Change Control Procedure No.: 1252 - COR - 17**

GENERAL						
Proposed Change Sponsor: <u>S. Wilson</u>		Received by CMB: <u>11/06/2013</u>		(Date)		
Affected Disciplines: <u>Utility Demolition</u>						
<u>Utility Composite</u>						
Impacts of Change <u>Impacts @ North and South Headwalls due to live utilities</u>						
Change Order Request (COR 17) Amount Not To Exceed \$43,219.00						
<b>Contract(s) Directly Affected by this Proposed Change:</b>						
1250	1251	1252	1253	1254	1255	1256
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
(CP01)	(CP02)	(CP03)	(CP04)	(CP05)	(CP06)	(CP07)
CONFIGURATION MANAGEMENT BOARD APPROVALS						
<i>Signatures</i>						
		Agree with the Change	Disagree with the Change	Date		
Program Director:				11-6-13		
Deputy Program Manager:						
PM Project Services:				11/6/13		
PM Project Construction:						
SFMTA O & M Manager:						
SFMTA Safety and Security				16 Nov 13		
SFCTA PMO						
<i>Comments</i>						

**Negotiated Cost Summary**

**General Scope:**

Equipment standby costs for a period of 16 working days for encountering live utilities at the MOS North and South Headwalls.

**Date of standby:**

7/5/2012 through 7/26/2012

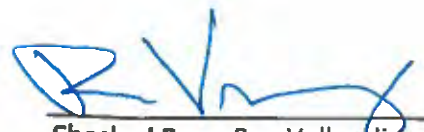
**Total Amount**

\$ 43,219

**List of attached documents:**

- Equipment Breakdowns
- SFMTA Cost Analysis

  
 Prepared By: Matt Hembd      Date: 11/01/13

  
 Checked By: Ben Volberding      Date: 11/1/13

Hourly rates:

Activity Description	Days	Foreman Truck	Tool Truck	10 Wheeler	Backhoe JD 310G	Breaker only	Mini Excavator Kubota U45	Excavator Komatus 228	Road Signs	Changeable message sign	Arrow Boards	Triton Barriers	Traffic Cones each	Steel Plates (Large)	Equipment Totals
Equipment Standby	16	1	1	1	1	1	1	1	6	2	2	75	20	5	\$ 34,462.94
	8	hrs./day													\$ 34,462.94

Labor	\$	-
Material	\$	-
Equipment	\$	34,462.94
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	5,169.44
1st Tier Sub Bond/Insurance - 2.14%	\$	848.13
<b>SPM Subtotal</b>	<b>\$</b>	<b>40,480.52</b>
Prime - Markup - 5%	\$	2,024.03
Prime - Bond/Insurance - 1.68%	\$	714.08
<b>Total Amount</b>	<b>\$</b>	<b>43,218.62</b>

Notes: Engineer's Estimate uses approved equipment rates per General Provision Article 6.04.

	Activity Description	Days (C)	Contractor (C)	Negotiation Results	Negotiated Amount
<b>Subcontractor (SPM)</b>					
<b>Labor</b>	<b>Direct Costs</b>				
	FA No. 4209 - 6/28/12	1	\$ 1,332	Costs excluded from Negotiated Amount, potholing is incidental to the work.	\$ -
	FA No. 4211 - 6/29/12	1	\$ 1,332	Same as above	\$ -
	<b>Standby Costs</b>	0	\$ -		\$ -
<b>Equipment</b>	<b>Direct Costs</b>				
	FA No. 4209 - 6/28/12	1	\$ 2,972	Same as above	\$ -
	FA No. 4211 - 6/29/12	1	\$ 3,320	Same as above	\$ -
	<b>Standby Costs</b>	<b>25</b>	\$ 49,450	Duration reduced to 16 days per negotiations.	\$ 34,463
	Material		\$ -		\$ -
	Subcontractor's		\$ -		\$ -
	<b>Total Subcontractor Direct Costs</b>		\$ 58,406		\$ 34,463
	1st Tier Sub OH&P - 15%		\$ 8,761		\$ 5,169
	Subcontractor's Bonds and Insurance		\$ 1,437		\$ 848
	<b>Total Subcontractor Costs</b>		\$ 68,604		\$ 40,481
	Prime - Markup - 5%		\$ 3,430		\$ 2,024
	Contractor's Bonds and Insurance		\$ 1,210		\$ 43,219
	<b>Total Amount</b>		\$ 73,245		\$ 43,219
				<b>RE Recommended Negotiated Amount</b>	\$ 43,219





# BARNARD IMPREGILO HEALY JOINT VENTURE

420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822  
 CONTRACT 1252: Third Street Lightrail Program Phase 2 - Central Subway Project

9/16/2013  
 Revised

COR 017: MOS - Impacts @ south headwall due to live TS lines

## Conflict - T&M Mark-up Summary

Direct Costs	Total
Labor	\$0.00
Labor Markup at Specified 15%	\$0.00
Equipment	\$0.00
Equipment Markup at Specified 15%	\$0.00
Materials	\$0.00
Materials Markup at Specified 15%	\$0.00
Other Items And Expenditures	\$0.00
Other Items And Expenditures Markup at Specified 15%	\$0.00
Subcontractors	\$68,604.45
Contractors Markup at Specified 5%	\$3,430.22
<b>Total Project Costs</b>	<b>\$72,034.67</b>

BIHJV Payment & Performance Bonds & Builder's Risk Insurance (1.68%) \$1,210.18

**Total Amount** \$73,244.85

### Record of Negotiation:

4 WD patholing N&S MOS headwalls  
 14 WD for SFMTA to mitigate per contract  
 work began 6/11/12. + 18' WD → 7/5/12 (7/4/12 holiday)  
 7/5/12 → 7/26/12 Standby time: 16WD  
 7/27 SPM commenced work on COR 11: Traffic Signal 4th/Folsom

\$43,218.62

Final cost to be verified

BIH

SFMTA

10/22/13

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

## EVALUATION OF MERIT

### COR 017

**Recommendation:** Accept partial justification of Merit for COR 017, MOS – Impacts @ North and South Headwalls due to live utilities. Accept costs associated with equipment standby for a period of 16 working days. Do not accept costs for potholing. There is no time extension requested or recommended for this work.

**Facts:** This COR includes cost impacts incurred by the Contractor at the Moscone headwalls due to the discovery of numerous live utilities including, but not limited to PGE power, MCI communication, Verizon communication, SF city 911 lines and SFDT traffic signals (TS).

The PGE, MCI, Verizon and SF 911 utilities were shown on the contract utility demolition drawings as abandoned, not live. See attached Field Sketch No.1252 – 072.

The TS lines were shown on the contract drawings as abandoned and were found in a location different from the location depicted on the contract drawings. Contract drawings UD-403 Rev.1 and UT-403 Rev.0 depict the location of the TS line in an area outside the limits of the south headwall. The location discovered in the field was approximately 5'-6' north of the location indicated on the drawings. See attached Field Sketch No.1252 - 073.

Costs to reroute the traffic signal line have been evaluated under COR 011 (MOS – Traffic signal reroute South headwall).

**Justification:** The Contractor discovered live utilities at the north and south headwalls where the contract drawings depicted all utilities as being previously abandoned. Additionally, TS lines were found to be installed in a location different than what was shown on the contract drawings. Both of these conditions were unforeseen or differing site conditions as defined in contract specification GP-26 Section 3.04 A-2. Contract drawings UD-403 Rev.1 and UT-403 Rev.0 did not indicate live utilities in the area nor the TS line in the location discovered.

Each of these conditions prevented the Contractor from performing planned utility demolition or guide wall work.

Direct costs incurred by the Contractor as a result of potholing and excavating around TS lines necessary to determine the limits of their actual field location are not being considered for compensation as potholing is considered incidental to the work.

Standby costs incurred by the Contractor as a result of equipment that could not be utilized in productive operations, due to the presence of live utilities and field location of the TS utility, is being considered for compensation. The Contractor's equipment was inactive and remained on standby while the utility owners killed their live utilities and the

**SFMTA Contract No. 1252**

**Contractor:** Barnard Impregilo Healy JV (BIH)

decision was being made to have the Contractor re-route the TS line. The Contractor incurred equipment standby costs for a period of 16 working days from July 5<sup>th</sup>, 2012 through July 26<sup>th</sup>, 2012. The dates for this period were determined as follows:

- July 5<sup>th</sup>: June 13<sup>th</sup> (Day Contractor encountered live MCI Utilities) + 14 working day period for Contract potholing (per General Provision Article 3.01 A) + 2 working days for removing utilities per Contract.
- July 26<sup>th</sup>: day before actual start of the TS re-route work (based on authorization for COR 11 work given to Contractor on July 25<sup>th</sup>).

RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions caused the scope of work to increase.


**Change Type:** (2) Unforeseen Condition

By:



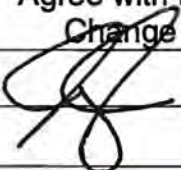


Sarah Wilson  
Resident Engineer

11/06/13  
Date

  
Configuration Management Board  
Approval

11-6-13  
Date



GENERAL		
Proposed Change Sponsor:	S. Wilson	Received by CMB: <u>11/06/2013</u> (Date)
Affected Disciplines:	<u>Excavation and Ground Support</u>	
Impacts of Change	LB Panel W29 Wood Pile	
	Change Order Request (COR 32) Amount Not To Exceed \$41,961.00	
<b>Contract(s) Directly Affected by this Proposed Change:</b>		
1250 1 <input type="checkbox"/> (CP01)	1251 2 <input type="checkbox"/> (CP02)	1252 3 <input checked="" type="checkbox"/> (CP03)
1253 4 <input type="checkbox"/> (CP04)	1254 5 <input type="checkbox"/> (CP05)	1255 6 <input type="checkbox"/> (CP06)
1256 7 <input type="checkbox"/> (CP07)		
CONFIGURATION MANAGEMENT BOARD APPROVALS		
<i>Signatures</i>		
	Agree with the Change	Disagree with the Change
Program Director:		Date
Deputy Program Manager:		<u>11-5-13</u>
PM Project Services:		
PM Project Construction:		<u>11/6/13</u>
SFMTA O & M Manager:		
SFMTA Safety and Security		
SFCTA PMO		<u>6 Nov 13</u>
<i>Comments</i>		

COR 032  
Panel W29

No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount	
Labor	1	Excavating Inefficiencies at Panel W-29 due to Wood Pile	39	23.02	\$ 2,553.62	\$ 1,507.27	\$ (1,046.35)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 2,030.45
	2	Pour Lean Mix in W-29	86.5	67.25	\$ 5,466.87	\$ 4,454.47	\$ (1,012.41)	EE contains reduced total MHRs as proposed by CJA-NCC in email sent after proposal contained herein	Use reduced MHRs as contained in CJA-NCC email	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 4,960.67
	3	Excavate Lean Mix	26	24	\$ 1,702.48	\$ 1,569.48	\$ (133.00)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 1,635.98
	4	Desand Panel W-29 After Lean Excavation	93	30	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,924.70
	5	Credit Desanding	-72	-9	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (2,584.56)
Equipment	1	Excavating Inefficiencies at Panel W-29 due to Wood Pile	39	23.02	\$ 4,892.83	\$ 2,917.51	\$ (1,975.32)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,905.17
	2	Pour Lean Mix in W-29	86.5	67.25	\$ 8,431.96	\$ 4,098.70	\$ (4,333.26)	Contractor's proposal contains many pieces of equipment not actively used during pour. SFMTA has used agreed P-panel equipment and added screwsuckers.	SFMTA will only compensate for actively used equipment.	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 6,265.33
	3	Excavate Lean Mix	26	24	\$ 3,225.64	\$ 2,973.72	\$ (251.92)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,099.68
	4	Desand Panel W-29 After Lean Excavation	93	30	\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 11,829.88
	5	Credit Desanding	-72	-9	\$ (13,967.83)	\$ (1,732.17)	\$ 12,235.66	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (7,850.00)
Materials	1	Excavating Inefficiencies at Panel W-29 due to Wood Pile			\$ 487.50	\$ -	\$ (487.50)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	2	Pour Lean Mix in W-29			\$ 6,421.03	\$ 6,323.31	\$ (97.72)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 6,323.31
	3	Excavate Lean Mix			\$ 325.01	\$ -	\$ (325.01)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	4	Desand Panel W-29 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 550.20
	5	Credit Desanding			\$ -	\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CJA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ (91.70)
Markup LM&E (15%)				\$ 6,072.83	\$ 4,452.73	\$ (1,620.11)			Markup LM&E (15%)	\$ 5,099.87	
Sub. Bond/Insurance (0.52%)				\$ 242.10	\$ 177.52	\$ (64.59)			Sub. Bond/Insurance (0.52%)	\$ 203.31	
<b>CJA-NCC Subtotal</b>				<b>\$ 46,800.49</b>	<b>\$ 34,315.08</b>	<b>\$ (12,485.41)</b>			<b>CJA-NCC Subtotal</b>	<b>\$ 39,302.28</b>	
Prime Markup (5%)				\$ 2,340.02	\$ 1,715.75	\$ (624.27)			Prime Markup (5%)	\$ 1,965.11	
Prime Bond/Insurance (1.68%)				\$ 825.56	\$ 605.32	\$ (220.24)			Prime Bond/Insurance (1.68%)	\$ 693.29	
<b>Total</b>				<b>\$ 49,966.07</b>	<b>\$ 36,636.15</b>	<b>\$ (13,329.92)</b>			<b>RE Recommended Negotiated Amount</b>	<b>\$ 41,960.69</b>	

## Estimate Summary

### Scope/Background:

A differing site condition was encountered while performing slurry wall construction along the west side of the Launch Box (PANEL W-29). A wood pile was discovered to be in the direct path of the slurry wall panel. Scope of work includes lean mix back filling and re-excavation as required to complete excavation meeting verticality requirements.

### Estimated Cost:

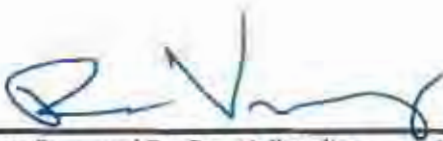
Labor	\$ 8,871.36
Material	\$ 6,781.81
Equipment	\$ 14,031.66
2nd Tier Sub	\$ -
Markups	\$ 6,951.31
<b>Total</b>	<b>\$ 36,636.15</b>

Stakeholders: SFMTA, BIH, CJA-NCC

Date of initial discovery: 8/30/12

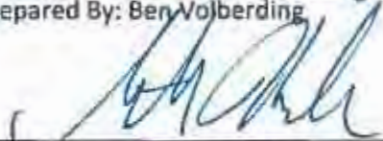
### List of attached documents:

- Proposal/estimate comparison
- Detailed labor/equipment/materials estimate
- Slurry wall panel QC Report excavation/lean excavation duration summary



Estimate Prepared By: Ben Volberding

11/5/13  
Date:



Estimate Checked By: Matt Hembd

11/5/13  
Date:



COR 032									
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta		Negotiation Position
Labor	1	Excavating Inefficiencies at Panel W-29 due to Wood Pile	39	23.02	\$ 2,553.62	\$ 1,507.27	\$ (1,046.35)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in W-29	86.5	67.25	\$ 5,466.87	\$ 4,454.47	\$ (1,012.41)	EE contains reduced total MHRs as proposed by CIA-NCC in email sent after proposal contained herein	
	3	Excavate Lean Mix	26	24	\$ 1,702.48	\$ 1,569.48	\$ (133.00)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	4	Desand Panel W-29 After Lean Excavation	93	30	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding	-72	-9	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Equipment	1	Excavating Inefficiencies at Panel W-29 due to Wood Pile			\$ 4,892.83	\$ 2,917.51	\$ (1,975.32)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in W-29			\$ 8,431.96	\$ 4,098.70	\$ (4,333.26)	Contractor's proposal contains many pieces of equipment not actively used during pour. SFMTA has used agreed P-panel equipment and added screwsuckers.	SFMTA will only compensate for actively used equipment.
	3	Excavate Lean Mix			\$ 3,225.64	\$ 2,973.72	\$ (251.92)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	4	Desand Panel W-29 After Lean Excavation			\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding			\$ (13,967.83)	\$ (1,732.17)	\$ 12,235.66	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Materials	1	Excavating Inefficiencies at Panel W-29 due to Wood Pile			\$ 487.50	\$ -	\$ (487.50)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	2	Pour Lean Mix in W-29			\$ 6,421.03	\$ 6,323.31	\$ (97.72)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	3	Excavate Lean Mix			\$ 325.01	\$ -		Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	4	Desand Panel W-29 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	5	Credit Desanding			\$ -	\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CIA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.
<b>Markup LM&amp;E (15%)</b>				\$ 6,072.83	\$ 4,452.73	\$ (1,620.11)			
<b>Sub. Bond/Insurance (0.52%)</b>				\$ 242.10	\$ 177.52	\$ (64.59)			
<b>CIA-NCC Subtotal</b>				\$ 46,800.49	\$ 34,315.08	\$ (12,485.41)			
<b>Prime Markup (5%)</b>				\$ 2,340.02	\$ 1,715.75	\$ (624.27)			
<b>Prime Bond/Insurance (1.68%)</b>				\$ 825.56	\$ 605.32	\$ (220.24)			
<b>Total</b>				\$ 49,966.07	\$ 36,636.15	\$ (13,329.92)			
<b>RE Recommended NTE Amount</b>				\$ 43,000.00	\$36,636 + \$6,364 (Misc. Materials/Equipment Rate Differences)				



Excavating Inefficiencies [#1]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Pour Lean Mix [#2]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
6020	Put Crawler	\$ 44.85	0.20	\$ 8.97	\$ 44.85
6021	Put 2AXL	\$ 44.85	0.20	\$ 8.97	\$ 44.85
7155	Linkbelt Hydro	\$ 286.55	0.24	\$ 68.77	\$ 286.55
TPR0006	Treme Pipe	\$ 5.07	0.57	\$ 2.89	\$ 5.07
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 38.10
					\$ 512.34

Excavate Lean Mix [#3]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Desand Panel After Lean Excavation [#4]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AA	Generator	\$ 152.54	0.11	\$ 16.78	\$ 152.54
21134-AD	Deck Crane	\$ 32.36	0.27	\$ 8.74	\$ 32.36
21134-AO	Air Compressor	\$ 20.01	0.12	\$ 2.40	\$ 20.01
A29160T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29220T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A32350T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A35250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60310T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60320T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
ABM3001	Bentonite Mixer	\$ 24.87	0.40	\$ 9.95	\$ 24.87
DBD3002	Desander	\$ 218.75	0.41	\$ 89.69	\$ 218.75
ECB2001	20' Container	\$ 12.19	0.38	\$ 4.63	\$ 12.19
ECP1007	VFD Panel	\$ 47.43	0.17	\$ 8.06	\$ 47.43
MP543	Mission Pump	\$ 46.55	0.53	\$ 24.67	\$ 46.55
MP4313	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4316	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP861	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4317	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP6805	Mission Pump	\$ 90.71	0.27	\$ 24.49	\$ 90.71
SSP20201	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
WPG0001	Water Pump	\$ 40.18	0.61	\$ 24.51	\$ 40.18
					\$ 1,154.78

Color Coding:
Compensated using Standby Rates
Compensated using Active Rates

Material	Qty.	Unit	Unit Price	Extension
Concrete	63	CY	\$ 100.37	\$ 6,323.31
Sodium Bicarbonate	30	Bags	\$ 18.34	\$ 550.20
	-5	Bags	\$ 18.34	\$ (91.70)
				\$ -
<b>Total</b>				<b>\$ 6,781.81</b>

2nd Tier Sub Quote

\$ -

Slurry Wall Panel Obstructions  
W Panel Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Non-Impacted/Non-Outlier Panels</b>							
W01	7.67	6.50					14.17
W02	7.50	14.00					21.50
W04	8.50						8.50
W05	4.50	7.00	8.17				19.67
W07	7.00	6.00	6.50				19.50
W08	3.17	6.50					9.67
W09	8.50	6.50					15.00
W10	1.50	7.00	8.58				17.08
W11	2.67	10.50					13.17
W13	6.50	8.50	6.50	5.33			26.83
W14	8.33	4.00					12.33
W15	1.67	2.83	7.17	7.00			18.67
W16	0.50	9.67	10.00				20.17
W17	7.17	4.33					11.50
W19	7.50	6.50					14.00
W20	4.67	6.50					11.17
W21	8.50	6.50	5.50				20.50
W22	1.50	9.00	4.00				14.50
W23	9.00	9.00					18.00
W24	5.67	4.00					9.67
W26	6.50	6.50	5.00				18.00
W27	8.50	4.50	8.50				21.50
W31	2.50	8.50	6.50	6.50			24.00
W32	3.50	6.50	8.50				18.50
W33	12.67						12.67
W34	10.00	8.50	5.33				23.83
W35	6.50	9.17	9.50				25.17
W36	6.00	1.50	2.50	8.42	4.33		22.75
W37	2.67	2.00	6.50	6.00			17.17
W38	6.50	8.50	6.50				21.50
W39	2.92	10.92	12.50				26.34
W41	2.75	8.50					11.25
W43	8.50	5.33					13.83
<b>Average Duration Per Non-Impacted/Non-Outlier Panels:</b>							<b>17.34</b>

<b>Impacted Panels</b>							
W25	5.00	6.00	6.50	4.00			21.50
W28	8.50	8.50	7.00	8.50	7.00	8.50	48.00
W29	8.67	8.67	7.67				25.01
W30	5.17	2.33	4.50	10.50	9.50		32.00

Average Duration Per Non-Impacted/Non-Outlier Panels:	17.34
W-29 Duration:	25.01
<b>Additional Duration Due to Buried Obstruction:</b>	<b>7.67</b>

<b>Outlier Panels (not considered)</b>							
W03	8.50	6.50	8.50	8.42	10.50		42.42
W06	3.00	8.00	7.00	8.50	7.00	7.00	40.50
W12	7.50	6.50	8.50	6.50	8.50		37.50
W18	3.50	8.50	6.50	8.50	4.33	2.83	34.16
W40	7.50	8.50	6.50	10.50	10.00	10.00	53.00
W42	MISSING						-

Slurry Wall Panel Ostruptions  
 W Panel Lean Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Impacted Panels</b>							
W25	1.17	0.42	2.67	3.17			<b>7.43</b>
W28	0.66	3.50					<b>4.16</b>
W29	1.83	4.33	1.83				<b>7.99</b>



SFMTA Contract No. 1252

Contractor:

Barnard Impregilo Healy JV (BIH)

## EVALUATION OF MERIT

### COR 032

**Recommendation:** Accept justification of Merit for COR 032. Occurrence of a wood pile within slurry diaphragm wall (SW) panel W29 constitutes a differing site condition. The time impact associated with this COR has not yet been determined.

**Facts:** On August 30<sup>th</sup> 2012, BIH's subcontractor, Condon Johnson/Nicholson JV (CJA-NCC), encountered a wood pile within panel W29 at the TBM Launch Box. The wood pile caused the SW to deviate from the designed excavation limits. In order to correct the verticality of the panel excavation, the panel was backfilled with lean concrete and re-excavated. BIH/CJA-NCC is claiming the presence of the wood pile caused 4 working days delay to the SW work.

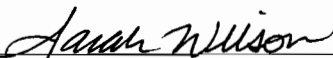
**Rationale for COR:** The contract does not indicate the presence of wood piles within the footprint of slurry wall diaphragm wall panel W29. The wood pile has prevented slurry diaphragm wall construction from occurring as originally planned.

**Justification:** RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions will cause scope of work to increase.

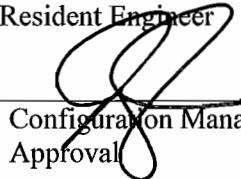
RE notes that the Differing Site Condition does not include:

1. All that is indicated in or may reasonably interpreted from the Contract Documents or Reference Documents;
2. All that could be seen on Site by diligent observation;
3. Conditions that are materially similar or characteristically the same as those indicated or described in the Contract Documents or Reference Documents.
4. Conditions where the location of a building component is in the proximity where indicated in or reasonably interpreted from the Contract Documents or Reference Documents

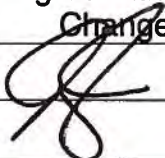
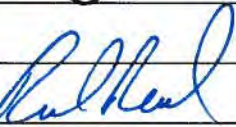

By:

  
\_\_\_\_\_  
Sarah Wilson  
Resident Engineer

11/28/12  
Date

  
\_\_\_\_\_  
Configuration Management Board  
Approval

11-28-12  
Date

<b>GENERAL</b>						
Proposed Change Sponsor:	S. Wilson	Received by CMB:	11/06/2013			
			(Date)			
Affected Disciplines:	Excavation and Ground Support					
Impacts of Change	LB Panel W28 Wood Pile					
	Change Order Request (COR 34) Amount Not To Exceed \$43,294.00					
<b>Contract(s) Directly Affected by this Proposed Change:</b>						
1250	1251	1252	1253	1254	1255	1256
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
(CP01)	(CP02)	(CP03)	(CP04)	(CP05)	(CP06)	(CP07)
<b>CONFIGURATION MANAGEMENT BOARD APPROVALS</b>						
<i>Signatures</i>						
	Agree with the Change	Disagree with the Change	Date			
Program Director:			11-6-13			
Deputy Program Manager:						
PM Project Services:			11/6/13			
PM Project Construction:						
SFMTA O & M Manager:						
SFMTA Safety and Security			6 Nov 13			
SFCTA PMO						
Comments						

COR 034  
Panel W28

No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount	
Labor	1	Excavating Inefficiencies at Panel W-28 due to wood pile	27.5	92.0	\$ 1,800.69	\$ 6,023.20	\$ 4,222.51	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,911.94
	2	Pour Lean Mix in W-28	56.0	67.3	\$ 4,046.88	\$ 4,454.47	\$ 407.59	EE contains total MHRs as contained in pour operation for panel W-29	Use CJA-NCC proposed labor for W-29 for all W-panel pours	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 4,250.67
	3	Excavate Lean Mix	16.0	12.5	\$ 1,046.98	\$ 817.15	\$ (229.83)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 932.06
	4	Desand Panel W-28 After Lean Excavation	93.0	30.0	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,924.70
	5	Credit Desanding	-72.0	-9.0	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (2,584.56)
Equipment	1	Excavating Inefficiencies at Panel W-28 due to wood pile	27.5	92.0	\$ 3,480.82	\$ 11,444.98	\$ 7,964.16	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 7,462.90
	2	Pour Lean Mix in W-28	56.0	67.3	\$ 8,575.76	\$ 4,098.70	\$ (4,477.06)	Contractor's proposal contains many pieces of equipment not actively used during pour. SFMTA has used agreed P-panel equipment and added screwsuckers.	SFMTA will only compensate for actively used equipment.	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 6,337.23
	3	Excavate Lean Mix	16.0	12.5	\$ 2,116.45	\$ 1,541.44	\$ (575.01)	C uses duration from excavation log. EE uses average durations from QC report. Proposal contains costs for Koden yet excavation logs do not indicate any verticality control during lean excavation	Use QC report durations as this was officially submitted at time of work. Remove Koden costs.	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 1,828.94
	4	Desand Panel W-28 After Lean Excavation	93.0	30.0	\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 11,829.88
	5	Credit Desanding	-72.0	-9.0	\$ (13,847.11)	\$ (1,732.17)	\$ 12,114.94	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (7,789.64)
Materials	1	Excavating Inefficiencies at Panel W-28 due to wood pile			\$ 343.76	\$ -	\$ (343.76)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	2	Pour Lean Mix in W-28			\$ 4,437.65	\$ 4,516.65	\$ 79.00	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 4,516.65
	3	Excavate Lean Mix			\$ 199.99	\$ -	\$ (199.99)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	4	Desand Panel W-28 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 550.20
	5	Credit Desanding			\$ -	\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CJA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ (91.70)
Markup LM&E (15%)				\$ 4,972.25	\$ 5,810.54	\$ 838.30					
Sub. Bond/Insurance (0.52%)				\$ 198.23	\$ 231.65	\$ 33.42					
<b>CJA-NCC Subtotal</b>				<b>\$ 38,318.78</b>	<b>\$ 44,779.15</b>	<b>\$ 6,460.37</b>					
Prime Markup (5%)				\$ 1,915.94	\$ 2,238.96	\$ 323.02					
Prime Bond/Insurance (1.68%)				\$ 675.94	\$ 789.90	\$ 113.96					
<b>Total</b>				<b>\$ 40,910.67</b>	<b>\$ 47,808.01</b>	<b>\$ 6,897.35</b>	<b>RE Recommended NTE Amount \$ 43,293.82</b>				

## Estimate Summary

### Scope/Background:

A differing site condition was encountered while performing slurry wall construction along the side of the Launch Box. A wood pile was discovered to be in the direct path of the slurry wall panel (PANEL W-28). Scope of work includes lean mix back filling and re-excavation as required to complete excavation meeting verticality requirements.

### Estimated Cost:

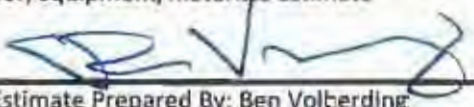
Labor	\$ 12,634.96
Material	\$ 4,975.15
Equipment	\$ 21,126.85
2nd Tier Sub	\$ -
Markups	\$ 9,071.05
<b>Total</b>	<b>\$ 47,808.01</b>

Stakeholders: SFMTA, BIH, CIA-NCC

Date of initial discovery: 9/10/12

### List of attached documents:

- Proposal/estimate comparison
- Detailed labor/equipment/materials estimate

  
\_\_\_\_\_  
Estimate Prepared By: Ben Volberding

11/5/13  
Date:

  
\_\_\_\_\_  
Estimate Checked By: Matt Hermbd

11/5/13  
Date:

COR 034									
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta		Negotiation Position
Labor	1	Excavating Inefficiencies at Panel W-28 due to wood pile	27.5	92.0	\$ 1,800.69	\$ 6,023.20	\$ 4,222.51	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in W-28	56.0	67.3	\$ 4,046.88	\$ 4,454.47	\$ 407.59	EE contains total MHRs as contained in pour operation for panel W-29	Use CJA-NCC proposed labor for W-29 for all W-panel pours
	3	Excavate Lean Mix	16.0	12.5	\$ 1,046.98	\$ 817.15	\$ (229.83)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	4	Desand Panel W-28 After Lean Excavation	93.0	30.0	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding	-72.0	-9.0	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Equipment	1	Excavating Inefficiencies at Panel W-28 due to wood pile			\$ 3,480.82	\$ 11,444.98	\$ 7,964.16	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in W-28			\$ 8,575.76	\$ 4,098.70	\$ (4,477.06)	Contractor's proposal contains many pieces of equipment not actively used during pour. SFMTA has used agreed P-panel equipment and added screwsuckers.	SFMTA will only compensate for actively used equipment.
	3	Excavate Lean Mix			\$ 2,116.45	\$ 1,541.44	\$ (575.01)	C uses duration from excavation log. EE uses average durations from QC report. Proposal contains costs for Koden yet excavation logs do not indicate any verticality control during lean excavation	Use QC report durations as this was officially submitted at time of work. Remove Koden costs.
	4	Desand Panel W-28 After Lean Excavation			\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding			\$ (13,847.11)	\$ (1,732.17)	\$ 12,114.94	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Materials	1	Excavating Inefficiencies at Panel W-28 due to wood pile			\$ 343.76	\$ -	\$ (343.76)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	2	Pour Lean Mix in W-28			\$ 4,437.65	\$ 4,516.65	\$ 79.00	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	3	Excavate Lean Mix			\$ 199.99	\$ -	\$ (199.99)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	4	Desand Panel W-28 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	5	Credit Desanding			\$ -	\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CJA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.
<b>Markup LM&amp;E (15%)</b>				\$ 4,972.25	\$ 5,810.54	\$ 838.30			
<b>Sub. Bond/Insurance (0.52%)</b>				\$ 198.23	\$ 231.65	\$ 33.42			
<b>CJA-NCC Subtotal</b>				\$ 38,318.78	\$ 44,779.15	\$ 6,460.37			
<b>Prime Markup (5%)</b>				\$ 1,915.94	\$ 2,238.96	\$ 323.02			
<b>Prime Bond/Insurance (1.68%)</b>				\$ 675.94	\$ 789.90	\$ 113.96			
<b>Total</b>				\$ 40,910.67	\$ 47,808.01	\$ 6,897.35			
<b>RE Recommended NTE Amount</b>				\$ 40,910.67					



Activity No.	Activity	Hourly rates:																Labor totals	Excavating Spread [#1]	Koden (KDM-01)	Pour Lean Mix Spread [#2]	Excavate Lean Mix Spread [#3]	Desand Spread [#4] (Hours reduced 50%)	Desand Spread [#4] (Hours reduced 50%)	Equipment Totals					
		\$52.79	\$69.66	\$52.60	\$69.38	\$52.48	\$31.55	\$73.24	\$96.17	\$72.43	\$70.59	\$68.87	\$89.63	\$48.99	\$75.85	\$100.09	\$73.59									\$96.70	\$77.25	\$100.71	\$81.95	
1	Excavating Inefficiencies at Panel W-29 due to Wood Pile			30.66			30.66			30.66												\$6,023.20	30.66	3.17						\$ 11,444.98
2	Pour Lean Mix in W-29	11	0.25				8	8		8	1					15		8		8		\$4,454.47			8					\$ 4,098.70
3	Excavate Lean Mix			4.16			4.16		4.16													\$817.15			4.16					\$ 1,541.44
4	Desand Panel W-29 After Lean Excavation									10		10				10						\$1,914.50				5				\$ 5,773.90
5	Credit Desanding									-3		-3				-3						-\$574.35						-1.5		\$ (1,732.17)
<b>Total</b>																		<b>\$12,634.96</b>								<b>\$ 21,126.85</b>				

Labor	\$	12,634.96
Material	\$	4,975.15
Equipment	\$	21,126.85
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	5,810.54
1st Tier Sub Bond/Insurance - 0.52%	\$	231.65
<b>CJA-NCC Subtotal</b>	<b>\$</b>	<b>44,779.15</b>
Prime - Markup - 5%	\$	2,238.96
Prime - Bond/Insurance - 1.68%	\$	789.90
<b>Total Amount</b>	<b>\$</b>	<b>47,808.01</b>

**Assumptions:**  
 -Excation inefficiencies and excavate lean mix durations based on SFMTA review of BIH QC reports  
 -Koden durations used are based on excavation logs submitted within COR packages  
 -All labor/equipment spreads based on agreements made during meetings between SFMTA, BJH and CJA-NCC



Excavating Inefficiencies [#1]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Pour Lean Mix [#2]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
6020	Put Crawler	\$ 44.85	0.20	\$ 8.97	\$ 44.85
6021	Put 2AXL	\$ 44.85	0.20	\$ 8.97	\$ 44.85
7155	Linkbelt Hydro	\$ 286.55	0.24	\$ 68.77	\$ 286.55
TPR0006	Treme Pipe	\$ 5.07	0.57	\$ 2.89	\$ 5.07
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 38.10
					\$ 512.34

Excavate Lean Mix [#3]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Desand Panel After Lean Excavation [#4]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AA	Generator	\$ 152.54	0.11	\$ 16.78	\$ 152.54
21134-AD	Deck Crane	\$ 32.36	0.27	\$ 8.74	\$ 32.36
21134-AO	Air Compressor	\$ 20.01	0.12	\$ 2.40	\$ 20.01
A29160T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29220T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A32350T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A35250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60310T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60320T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
ABM3001	Bentonite Mixer	\$ 24.87	0.40	\$ 9.95	\$ 24.87
DBD3002	Desander	\$ 218.75	0.41	\$ 89.69	\$ 218.75
ECB2001	20' Container	\$ 12.19	0.38	\$ 4.63	\$ 12.19
ECP1007	VFD Panel	\$ 47.43	0.17	\$ 8.06	\$ 47.43
MP543	Mission Pump	\$ 46.55	0.53	\$ 24.67	\$ 46.55
MP4313	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4316	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP861	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4317	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP6805	Mission Pump	\$ 90.71	0.27	\$ 24.49	\$ 90.71
SSP20201	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
WPG0001	Water Pump	\$ 40.18	0.61	\$ 24.51	\$ 40.18
					\$ 1,154.78

Color Coding:
Compensated using Standby Rates
Compensated using Active Rates

Material	Qty.	Unit	Unit Price	Extension
Concrete	45	CY	\$ 100.37	\$ 4,516.65
Sodium Bicarbonate	30	Bags	\$ 18.34	\$ 550.20
	-5	Bags	\$ 18.34	\$ (91.70)
				\$ -
<b>Total</b>				<b>\$ 4,975.15</b>

2nd Tier Sub Quote

\$ -

Slurry Wall Panel Obstructions  
W Panel Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Non-Impacted/Non-Outlier Panels</b>							
W01	7.67	6.50					14.17
W02	7.50	14.00					21.50
W04	8.50						8.50
W05	4.50	7.00	8.17				19.67
W07	7.00	6.00	6.50				19.50
W08	3.17	6.50					9.67
W09	8.50	6.50					15.00
W10	1.50	7.00	8.58				17.08
W11	2.67	10.50					13.17
W13	6.50	8.50	6.50	5.33			26.83
W14	8.33	4.00					12.33
W15	1.67	2.83	7.17	7.00			18.67
W16	0.50	9.67	10.00				20.17
W17	7.17	4.33					11.50
W19	7.50	6.50					14.00
W20	4.67	6.50					11.17
W21	8.50	6.50	5.50				20.50
W22	1.50	9.00	4.00				14.50
W23	9.00	9.00					18.00
W24	5.67	4.00					9.67
W26	6.50	6.50	5.00				18.00
W27	8.50	4.50	8.50				21.50
W31	2.50	8.50	6.50	6.50			24.00
W32	3.50	6.50	8.50				18.50
W33	12.67						12.67
W34	10.00	8.50	5.33				23.83
W35	6.50	9.17	9.50				25.17
W36	6.00	1.50	2.50	8.42	4.33		22.75
W37	2.67	2.00	6.50	6.00			17.17
W38	6.50	8.50	6.50				21.50
W39	2.92	10.92	12.50				26.34
W41	2.75	8.50					11.25
W43	8.50	5.33					13.83
<b>Average Duration Per Non-Impacted/Non-Outlier Panels:</b>							17.34

<b>Impacted Panels</b>							
W25	5.00	6.00	6.50	4.00			21.50
W28	8.50	8.50	7.00	8.50	7.00	8.50	48.00
W29	8.67	8.67	7.67				25.01
W30	5.17	2.33	4.50	10.50	9.50		32.00

Average Duration Per Non-Impacted/Non-Outlier Panels:	17.34
W-28 Duration:	48.00
<b>Additional Duration Due to Buried Obstruction:</b>	<b>30.66</b>

<b>Outlier Panels (not considered)</b>							
W03	8.50	6.50	8.50	8.42	10.50		42.42
W06	3.00	8.00	7.00	8.50	7.00	7.00	40.50
W12	7.50	6.50	8.50	6.50	8.50		37.50
W18	3.50	8.50	6.50	8.50	4.33	2.83	34.16
W40	7.50	8.50	6.50	10.50	10.00	10.00	53.00
W42	<b>MISSING</b>						-

Slurry Wall Panel Ostruptions  
 W Panel Lean Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Impacted Panels</b>							
W25	1.17	0.42	2.67	3.17			<b>7.43</b>
W28	0.66	3.50					<b>4.16</b>
W29	1.83	4.33	1.83				<b>7.99</b>

SFMTA Contract No. 1252

Contractor:

Barnard Impregilo Healy JV (BIH)

## EVALUATION OF MERIT

### COR 034

**Recommendation:** Accept justification of Merit for COR 034. Occurrence of a wood pile within slurry diaphragm wall (SW) panel W28 constitutes a differing site condition. The time impact associated with this COR has not yet been determined.

**Facts:** On September 10<sup>th</sup> 2012, BIH's subcontractor, Condon Johnson/Nicholson JV (CJA-NCC), encountered a wood pile within panel W28 at the TBM Launch Box. The wood pile caused the SW to deviate from the designed excavation limits. In order to correct the verticality of the panel excavation, the panel was backfilled with lean concrete and re-excavated. BIH/CJA-NCC is claiming the presence of the wood pile caused 4 working days delay to the SW work.

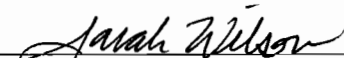
**Rationale for COR:** The contract does not indicate the presence of wood piles within the footprint of slurry wall diaphragm wall panel W28. The wood pile has prevented slurry diaphragm wall construction from occurring as originally planned.

**Justification:** RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions will cause scope of work to increase.


RE notes that the Differing Site Condition does not include:

1. All that is indicated in or may reasonably interpreted from the Contract Documents or Reference Documents;
2. All that could be seen on Site by diligent observation;
3. Conditions that are materially similar or characteristically the same as those indicated or described in the Contract Documents or Reference Documents.
4. Conditions where the location of a building component is in the proximity where indicated in or reasonably interpreted from the Contract Documents or Reference Documents

By:

  
\_\_\_\_\_  
Sarah Wilson  
Resident Engineer

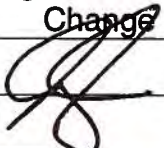


11/28/12  
Date

  
\_\_\_\_\_  
Configuration Management Board  
Approval

11-28-12  
Date

**CMB Change No.: CMB – 138**

**Initial Implementing Change Control Procedure No.: 1252 – COR - 42**

GENERAL						
Proposed Change Sponsor: <u>S. Wilson</u>		Received by CMB: <u>11/06/2013</u>		(Date)		
Affected Disciplines: <u>Excavation and Ground Support</u>						
Impacts of Change <u>LB Panel W25 Wood Pile</u>						
Change Order Request (COR 42) Amount Not To Exceed 42,894.00						
<b>Contract(s) Directly Affected by this Proposed Change:</b>						
1250 1 <input type="checkbox"/> (CP01)	1251 2 <input type="checkbox"/> (CP02)	1252 3 <input checked="" type="checkbox"/> (CP03)	1253 4 <input type="checkbox"/> (CP04)	1254 5 <input type="checkbox"/> (CP05)	1255 6 <input type="checkbox"/> (CP06)	1256 7 <input type="checkbox"/> (CP07)
CONFIGURATION MANAGEMENT BOARD APPROVALS						
<i>Signatures</i>						
	Agree with the Change	Disagree with the Change	Date			
Program Director:			11-6-13			
Deputy Program Manager:						
PM Project Services:						
PM Project Construction:			11/6/13			
SFMTA O & M Manager:						
SFMTA Safety and Security						
SFCTA PMO			6 Nov 13			
Comments						



COR 042  
Panel W25

No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount	
Labor	1	Excavating Inefficiencies at Panel W-25 due to wood pile	38.5	12.5	\$ 2,520.82	\$ 817.80	\$ (1,703.02)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 1,669.31
	2	Pour Lean Mix in W-25	66.5	67.3	\$ 4,421.48	\$ 4,454.47	\$ 32.99	EE contains total MHRs as contained in pour operation for panel W-29	Use CJA-NCC proposed labor for W-29 for all W-panel pours	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 4,437.97
	3	Excavate Lean Mix	48.2	22.3	\$ 3,159.23	\$ 1,459.47	\$ (1,699.76)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 2,309.35
	4	Desand Panel W-25 After Lean Excavation	93.0	30.0	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,924.70
	5	Credit Desanding	-72.0	-9.0	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (2,584.56)
Equipment	1	Excavating Inefficiencies at Panel W-25 due to wood pile	38.5	12.5	\$ 4,839.66	\$ 1,625.73	\$ (3,213.93)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,232.69
	2	Pour Lean Mix in W-25	66.5	67.3	\$ 7,920.15	\$ 4,098.70	\$ (3,821.45)	Contractor's proposal contains many pieces of equipment not actively used during pour. SFMTA has used agreed P-panel equipment and added screwsuckers.	SFMTA will only compensate for actively used equipment.	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 6,009.42
	3	Excavate Lean Mix	48.2	22.3	\$ 6,013.72	\$ 2,805.50	\$ (3,208.22)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 4,409.61
	4	Desand Panel W-25 After Lean Excavation	93.0	30.0	\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 11,829.88
	5	Credit Desanding	-72.0	-9.0	\$ (13,467.94)	\$ (1,732.17)	\$ 11,735.77	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (7,600.06)
Materials	1	Excavating Inefficiencies at Panel W-25 due to wood pile			\$ 481.24	\$ -	\$ (481.24)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	2	Pour Lean Mix in W-25			\$ 6,751.82	\$ 6,657.88	\$ (93.94)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 6,657.88
	3	Excavate Lean Mix			\$ 603.11	\$ -	\$ (603.11)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	4	Desand Panel W-25 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 550.20
	5	Credit Desanding			\$ -	\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CJA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ (91.70)
Markup LM&E (15%)				\$ 6,628.46	\$ 4,163.99	\$ (2,464.47)			Markup LM&E (15%)	\$ 5,213.21	
Sub. Bond/Insurance (0.52%)				\$ 264.25	\$ 166.00	\$ (98.25)			Sub. Bond/Insurance (0.52%)	\$ 207.83	
<b>CJA-NCC Subtotal</b>				<b>\$ 51,082.44</b>	<b>\$ 32,089.92</b>	<b>\$ (18,992.53)</b>			<b>CJA-NCC Subtotal</b>	<b>\$ 40,175.75</b>	
Prime Markup (5%)				\$ 2,554.12	\$ 1,604.50	\$ (949.63)			Prime Markup (5%)	\$ 2,008.79	
Prime Bond/Insurance (1.68%)				\$ 901.09	\$ 566.07	\$ (335.03)			Prime Bond/Insurance (1.68%)	\$ 708.70	
<b>Total</b>				<b>\$ 54,537.66</b>	<b>\$ 34,260.48</b>	<b>\$ (20,277.18)</b>			<b>RE Recommended Negotiated Amount</b>	<b>\$ 42,893.23</b>	

### Estimate Summary

**Scope/Background:**

A differing site condition was encountered while performing slurry wall construction along the side of the Launch Box (PANEL W-25). A wood pile was discovered to be in the direct path of the slurry wall panel. Scope of work includes lean mix back filling and re-excavation as required to complete excavation meeting verticality requirements.

**Estimated Cost:**

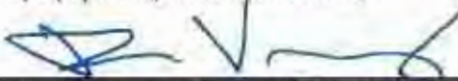
Labor	\$ 8,071.89
Material	\$ 7,116.38
Equipment	\$ 12,571.65
2nd Tier Sub	\$ -
Markups	\$ 6,500.56
<b>Total</b>	<b>\$ 34,260.48</b>

**Stakeholders:** SFMTA, BIH, CJA-NCC


**Date of initial discovery:** 8/30/12

**List of attached documents:**

- Proposal/estimate comparison
- Detailed labor/equipment/materials estimate

  
 Estimate Prepared By: Ben Volberding

1/5/13  
 Date:

  
 Estimate Checked By: Matt Hembd

1/5/13  
 Date:

COR 042

No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	
Labor	1	Excavating Inefficiencies at Panel W-25 due to wood pile	38.5	12.5	\$ 2,520.82	\$ 817.80	\$ (1,703.02)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in W-25	66.5	67.3	\$ 4,421.48	\$ 4,454.47	\$ 32.99	EE contains total MHRs as contained in pour operation for panel W-29	Use CJA-NCC proposed labor for W-29 for all W-panel pours
	3	Excavate Lean Mix	48.2	22.3	\$ 3,159.23	\$ 1,459.47	\$ (1,699.76)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	4	Desand Panel W-25 After Lean Excavation	93.0	30.0	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding	-72.0	-9.0	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Equipment	1	Excavating Inefficiencies at Panel W-25 due to wood pile			\$ 4,839.66	\$ 1,625.73	\$ (3,213.93)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in W-25			\$ 7,920.15	\$ 4,098.70	\$ (3,821.45)	Contractor's proposal contains many pieces of equipment not actively used during pour. SFMTA has used agreed P-panel equipment and added screwsuckers.	SFMTA will only compensate for actively used equipment.
	3	Excavate Lean Mix			\$ 6,013.72	\$ 2,805.50	\$ (3,208.22)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	4	Desand Panel W-25 After Lean Excavation			\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding			\$ (13,467.94)	\$ (1,732.17)	\$ 11,735.77	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Materials	1	Excavating Inefficiencies at Panel W-25 due to wood pile			\$ 481.24		\$ (481.24)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	2	Pour Lean Mix in W-25			\$ 6,751.82	\$ 6,657.88	\$ (93.94)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	3	Excavate Lean Mix			\$ 603.11		\$ (603.11)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	4	Desand Panel W-25 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	5	Credit Desanding			\$ -	\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CJA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.
Markup LM&E (15%)				\$ 6,628.46	\$ 4,163.99	\$ (2,464.47)			
Sub. Bond/Insurance (0.52%)				\$ 264.25	\$ 166.00	\$ (98.25)			
CJA-NCC Subtotal				\$ 51,082.44	\$ 32,089.92	\$ (18,992.53)			
Prime Markup (5%)				\$ 2,554.12	\$ 1,604.50	\$ (949.63)			
Prime Bond/Insurance (1.68%)				\$ 901.09	\$ 566.07	\$ (335.03)			
<b>Total</b>				<b>\$ 54,537.66</b>	<b>\$ 34,260.48</b>	<b>\$ (20,277.18)</b>			
RE Recommended NTE Amount				\$ 44,400.00	\$41,346 + \$10,140 (Misc. Materials/Equipment Rate Differences)				

Activity No.	Activity	Hourly rates:																		Labor totals	Excavating Spread [#1]	Koden (KDM-01)	Pour Lean Mix Spread [#2]	Excavate Lean Mix Spread [#3]	Desand Spread [#4] (Hours reduced 50%)	Desand Spread [#4] (Hours reduced 50%)	Equipment Totals					
		\$52.79	\$69.66	\$52.60	\$69.38	\$52.48	\$31.55	\$73.24	\$96.17	\$72.43	\$70.59	\$68.87	\$89.63	\$48.99	\$75.85	\$100.09	\$73.59	\$96.70	\$77.25									\$100.71	\$81.95	\$370.54	\$26.20	\$512.34
1	Excavating Inefficiencies at Panel W-29 due to Wood Pile			4.16			4.16			4.16											817.80	4.16	3.17									\$ 1,625.73
2	Pour Lean Mix in W-29	11.00	0.25			8.00	8.00			8.00	1.00				15.00		8.00		8.00		4454.47			8.00							\$ 4,098.70	
3	Excavate Lean Mix			7.43			7.43			7.43											1459.47		2.00		7.43					\$ 2,805.50		
4	Desand Panel W-29 After Lean Excavation									10.00		10.00			10.00						1914.50					5.00			\$ 5,773.90			
5	Credit Desanding									-3.00		-3.00			-3.00						-574.35							-1.50	\$ (1,732.17)			
<b>Total</b>																				<b>\$8,071.89</b>							<b>\$ 12,571.65</b>					

Labor	\$	8,071.89
Material	\$	7,116.38
Equipment	\$	12,571.65
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	4,163.99
1st Tier Sub Bond/Insurance - 0.52%	\$	166.00
<b>CJA-NCC Subtotal</b>	<b>\$</b>	<b>32,089.92</b>
Prime - Markup - 5%	\$	1,604.50
Prime - Bond/Insurance - 1.68%	\$	566.07
<b>Total Amount</b>	<b>\$</b>	<b>34,260.48</b>

**Assumptions:**  
 -Excavation inefficiencies and excavate lean mix durations based on SFMTA review of BIH QC reports  
 -Koden durations used are based on excavation logs submitted within COR packages  
 -All labor/equipment spreads based on agreements made during meetings between SFMTA, BJH and CJA-NCC

Excavating Inefficiencies [#1]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Pour Lean Mix [#2]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
6020	Put Crawler	\$ 44.85	0.20	\$ 8.97	\$ 44.85
6021	Put 2AXL	\$ 44.85	0.20	\$ 8.97	\$ 44.85
7155	Linkbelt Hydro	\$ 286.55	0.24	\$ 68.77	\$ 286.55
TPR0006	Treme Pipe	\$ 5.07	0.57	\$ 2.89	\$ 5.07
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 38.10
					\$ 512.34

Excavate Lean Mix [#3]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Desand Panel After Lean Excavation [#4]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AA	Generator	\$ 152.54	0.11	\$ 16.78	\$ 152.54
21134-AD	Deck Crane	\$ 32.36	0.27	\$ 8.74	\$ 32.36
21134-AO	Air Compressor	\$ 20.01	0.12	\$ 2.40	\$ 20.01
A29160T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29220T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A32350T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A35250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60310T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60320T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
ABM3001	Bentonite Mixer	\$ 24.87	0.40	\$ 9.95	\$ 24.87
DBD3002	Desander	\$ 218.75	0.41	\$ 89.69	\$ 218.75
ECB2001	20' Container	\$ 12.19	0.38	\$ 4.63	\$ 12.19
ECP1007	VFD Panel	\$ 47.43	0.17	\$ 8.06	\$ 47.43
MP543	Mission Pump	\$ 46.55	0.53	\$ 24.67	\$ 46.55
MP4313	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4316	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP861	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4317	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP6805	Mission Pump	\$ 90.71	0.27	\$ 24.49	\$ 90.71
SSP20201	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
WPG0001	Water Pump	\$ 40.18	0.61	\$ 24.51	\$ 40.18
					\$ 1,154.78

Color Coding:
Compensated using Standby Rates
Compensated using Active Rates



Material	Qty.	Unit	Unit Price	Extension
Concrete	68	CY	\$ 97.91	\$ 6,657.88
Sodium Bicarbonate	30	Bags	\$ 18.34	\$ 550.20
	-5	Bags	\$ 18.34	\$ (91.70)
				\$ -
<b>Total</b>				<b>\$ 7,116.38</b>

2nd Tier Sub Quote

\$ -

Slurry Wall Panel Obstructions  
W Panel Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Non-Impacted/Non-Outlier Panels</b>							
W01	7.67	6.50					14.17
W02	7.50	14.00					21.50
W04	8.50						8.50
W05	4.50	7.00	8.17				19.67
W07	7.00	6.00	6.50				19.50
W08	3.17	6.50					9.67
W09	8.50	6.50					15.00
W10	1.50	7.00	8.58				17.08
W11	2.67	10.50					13.17
W13	6.50	8.50	6.50	5.33			26.83
W14	8.33	4.00					12.33
W15	1.67	2.83	7.17	7.00			18.67
W16	0.50	9.67	10.00				20.17
W17	7.17	4.33					11.50
W19	7.50	6.50					14.00
W20	4.67	6.50					11.17
W21	8.50	6.50	5.50				20.50
W22	1.50	9.00	4.00				14.50
W23	9.00	9.00					18.00
W24	5.67	4.00					9.67
W26	6.50	6.50	5.00				18.00
W27	8.50	4.50	8.50				21.50
W31	2.50	8.50	6.50	6.50			24.00
W32	3.50	6.50	8.50				18.50
W33	12.67						12.67
W34	10.00	8.50	5.33				23.83
W35	6.50	9.17	9.50				25.17
W36	6.00	1.50	2.50	8.42	4.33		22.75
W37	2.67	2.00	6.50	6.00			17.17
W38	6.50	8.50	6.50				21.50
W39	2.92	10.92	12.50				26.34
W41	2.75	8.50					11.25
W43	8.50	5.33					13.83
<b>Average Duration Per Non-Impacted/Non-Outlier Panels:</b>							<b>17.34</b>

<b>Impacted Panels</b>							
W25	5.00	6.00	6.50	4.00			21.50
W28	8.50	8.50	7.00	8.50	7.00	8.50	48.00
W29	8.67	8.67	7.67				25.01
W30	5.17	2.33	4.50	10.50	9.50		32.00

Average Duration Per Non-Impacted/Non-Outlier Panels:	17.34
W-25 Duration:	21.50
<b>Additional Duration Due to Buried Obstruction:</b>	<b>4.16</b>

<b>Outlier Panels (not considered)</b>							
W03	8.50	6.50	8.50	8.42	10.50		42.42
W06	3.00	8.00	7.00	8.50	7.00	7.00	40.50
W12	7.50	6.50	8.50	6.50	8.50		37.50
W18	3.50	8.50	6.50	8.50	4.33	2.83	34.16
W40	7.50	8.50	6.50	10.50	10.00	10.00	53.00
W42	<b>MISSING</b>						-

Slurry Wall Panel Ostruptions  
 W Panel Lean Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Impacted Panels</b>							
W25	1.17	0.42	2.67	3.17			7.43
W28	0.66	3.50					4.16
W29	1.83	4.33	1.83				7.99

SFMTA Contract No. 1252

Contractor:

Barnard Impregilo Healy JV (BIH)

## EVALUATION OF MERIT

### COR 042

**Recommendation:** Accept justification of Merit for COR 042. Occurrence of a wood pile within slurry diaphragm wall (SW) panel W25 constitutes a differing site condition. The time impact associated with this COR has not yet been determined.

**Facts:** On August 15<sup>th</sup> 2012, BIH's subcontractor, Condon Johnson/Nicholson JV (CJA-NCC), encountered a wood pile within panel W25 at the TBM Launch Box. The wood pile caused the SW to deviate from the designed excavation limits. In order to correct the verticality of the panel excavation, the panel was backfilled with lean concrete and re-excavated. BIH/CJA-NCC is claiming the presence of the wood pile caused 4 working days delay to the SW work.


**Rationale for COR:** The contract does not indicate the presence of wood piles within the footprint of slurry wall diaphragm wall panel W25. The wood pile has prevented slurry diaphragm wall construction from occurring as originally planned.

**Justification:** RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions will cause scope of work to increase.

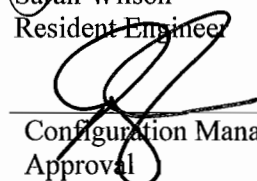
RE notes that the Differing Site Condition does not include:

1. All that is indicated in or may reasonably interpreted from the Contract Documents or Reference Documents;
2. All that could be seen on Site by diligent observation;
3. Conditions that are materially similar or characteristically the same as those indicated or described in the Contract Documents or Reference Documents.
4. Conditions where the location of a building component is in the proximity where indicated in or reasonably interpreted from the Contract Documents or Reference Documents

By:

  
\_\_\_\_\_  
Sarah Wilson  
Resident Engineer

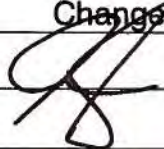
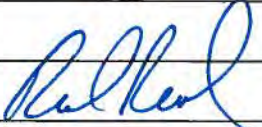

11/28/12  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Configuration Management Board  
Approval

11-28-12  
\_\_\_\_\_  
Date

**CMB Change No.: CMB – 139**

**Initial Implementing Change Control Procedure No.: 1252 – COR - 43**

<b>GENERAL</b>						
Proposed Change Sponsor: <u>S. Wilson</u>		Received by CMB: <u>11/06/2013</u>		(Date)		
Affected Disciplines: <u>Excavation and Ground Support</u>						
Impacts of Change <u>LB - Panel W30 Wood Pile</u>						
Change Order Request (COR 43) Amount Not To Exceed \$14,197.00						
<b>Contract(s) Directly Affected by this Proposed Change:</b>						
1250 1 <input type="checkbox"/> (CP01)	1251 2 <input type="checkbox"/> (CP02)	1252 3 <input checked="" type="checkbox"/> (CP03)	1253 4 <input type="checkbox"/> (CP04)	1254 5 <input type="checkbox"/> (CP05)	1255 6 <input type="checkbox"/> (CP06)	1256 7 <input type="checkbox"/> (CP07)
<b>CONFIGURATION MANAGEMENT BOARD APPROVALS</b>						
<i>Signatures</i>						
		Agree with the Change	Disagree with the Change	Date		
Program Director:				11-6-13		
Deputy Program Manager:						
PM Project Services:				11/6/13		
PM Project Construction:						
SFMTA O & M Manager:						
SFMTA Safety and Security				6 Nov 13		
SFCTA PMO						
<b>Comments</b>						



COR 043 Panel W30											
	No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount
Labor	1	Excavating Inefficiencies at Panel W-30 due to wood pile	58.0	44.0	\$ 3,797.63	\$ 2,880.32	\$ (917.31)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,338.97
Equipment	1	Excavating Inefficiencies at Panel W-30 due to wood pile	58.0	44.0	\$ 7,270.77	\$ 5,538.12	\$ (1,732.65)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 6,404.45
Materials	1	Excavating Inefficiencies at Panel W-30 due to wood pile			\$ 2,484.19	\$ 1,759.50	\$ (724.69)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates.	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 1,759.50
Markup LM&E (15%)					\$ 2,032.89	\$ 1,526.69	\$ (506.20)				Markup LM&E (15%) \$ 1,725.44
Sub. Bond/Insurance (0.52%)					\$ 81.04	\$ 60.86	\$ (20.18)				Sub. Bond/Insurance (0.52%) \$ 68.79
<b>CJA-NCC Subtotal</b>					<b>\$ 15,666.52</b>	<b>\$ 11,765.49</b>	<b>\$ (3,901.03)</b>				<b>CJA-NCC Subtotal \$ 13,297.15</b>
Prime Markup (5%)					\$ 783.33	\$ 588.27	\$ (195.05)				Prime Markup (5%) \$ 664.86
Prime Bond/Insurance (1.68%)					\$ 276.36	\$ 207.54	\$ (68.81)				Prime Bond/Insurance (1.68%) \$ 234.56
<b>Total</b>					<b>\$ 16,726.21</b>	<b>\$ 12,561.31</b>	<b>\$ (4,164.89)</b>				<b>RE Recommended Negotiated Amount \$ 14,196.56</b>

## Estimate Summary

**Scope/Background:**

A differing site condition was encountered while performing slurry wall construction along the side of the Launch Box. A wood pile was discovered to be in the direct path of the slurry wall panel (PANEL W-30). Scope of work includes excavation with CAT as required to complete excavation meeting verticality requirements.

**Estimated Cost:**


Labor	\$ 2,880.32
Material	\$ 1,759.50
Equipment	\$ 5,538.12
2nd Tier Sub	\$ -
Markups	\$ 2,383.37
<b>Total</b>	<b>\$ 12,561.31</b>

**Stakeholders:** SFMTA, BIH, CIA-NCC

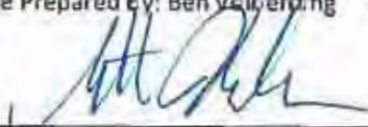
**Date of initial discovery:** 9/10/12

**List of attached documents:**

- Proposal/estimate comparison
- Detailed labor/equipment/materials estimate

  
\_\_\_\_\_  
Estimate Prepared By: Ben Vellering

11/5/13  
\_\_\_\_\_  
Date:

  
\_\_\_\_\_  
Estimate Checked By: Matt Hembd

11/5/13  
\_\_\_\_\_  
Date:

COR 043										
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position		
Labor	1	Excavating Inefficiencies at Panel W-30 due to wood pile	58.0	44.0	\$ 3,797.63	\$ 2,880.32	\$ (917.31)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	
Equipment	1	Excavating Inefficiencies at Panel W-30 due to wood pile			\$ 7,270.77	\$ 5,538.12	\$ (1,732.65)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	
Materials	1	Excavating Inefficiencies at Panel W-30 due to wood pile			\$ 2,484.19	\$ 1,759.50	\$ (724.69)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates.	
Markup LM&E (15%)				\$	2,032.89	\$	1,526.69	\$	(506.20)	
Sub. Bond/Insurance (0.52%)				\$	81.04	\$	60.86	\$	(20.18)	
CJA-NCC Subtotal				\$	15,666.52	\$	11,765.49	\$	(3,901.03)	
Prime Markup (5%)				\$	783.33	\$	588.27	\$	(195.05)	
Prime Bond/Insurance (1.68%)				\$	276.36	\$	207.54	\$	(68.81)	
<b>Total</b>				\$	<b>16,726.21</b>	\$	<b>12,561.31</b>	\$	<b>(4,164.89)</b>	
<b>RE Recommended NTE Amount</b>				\$	<b>14,600.00</b>	<b>\$12,561 + \$2,039 (Misc. Materials/Equipment Rate Differences)</b>				

Hourly rates:		\$52.79	\$69.66	\$52.60	\$69.38	\$52.48	\$73.24	\$96.17	\$70.59	\$68.87	\$48.99	\$75.85	#####	\$73.59	\$77.25	#####	#####	\$26.20						
Activity No.	Activity	Laborer (G1)	Laborer (G1) 1.5x OT	Laborer (G2)	Laborer (G2) 1.5x OT	Laborer (G3)	Operating Engineer (OE) (G2A)	Operating Engineer (OE) (G2A) 1.5x OT	Operating Engineer (OE) (G3)	Operating Engineer (OE) (G4)	Operating Engineer (OE) (APP1)	OE/Pile Driver (PD) (G1)	OE/Pile Driver (PD) (G1) 1.5x OT	OE/Pile Driver (PD) (G2)	Pile Driver Journ	Pile Driver Journ 1.5x OT		Excavating Spread (#1)	Koden (KDM-01)					Equipment Totals
1	Excavating Inefficiencies at Panel W-30 due to Wood Pile			14.66			14.66		14.66								\$ 2,880.32	14.66	4.00					\$ 5,538.12
<b>Total</b>																	<b>\$ 2,880.32</b>						<b>\$ 5,538.12</b>	

Labor	\$	2,880.32
Material	\$	1,759.50
Equipment	\$	5,538.12
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	1,526.69
1st Tier Sub Bond/Insurance - 0.52%	\$	60.86
<b>CJA-NCC Subtotal</b>	<b>\$</b>	<b>11,765.49</b>
Prime - Markup - 5%	\$	588.27
Prime - Bond/Insurance - 1.68%	\$	207.54
<b>Total Amount</b>	<b>\$</b>	<b>12,561.31</b>

**Assumptions:**  
 -Excation inefficiencies based on SFMTA review of BIH QC reports  
 -Koden durations used are based on excavation logs submitted within COR packages  
 -All labor/equipment spreads based on agreements made during meetings between SFMTA, BJH and CJA-NCC

<i>Excavating Inefficiencies [#1]</i>					
<i>CJ-NC Code:</i>	<i>Description</i>	<i>SFMTA Approved Rate</i>	<i>Standby Factor</i>	<i>Standby Rate</i>	<i>Extended</i>
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					<b>\$ 370.54</b>

<b>Color Coding:</b>
Compensated using Standby Rates
Compensated using Active Rates



Material	Qty.	Unit	Unit Price	Extension
Concrete Overpour	11.73	CY	\$ 150.00	\$ 1,759.50
<b>Total</b>				<b>\$ 1,759.50</b>

2nd Tier Sub Quote

\$ -

Slurry Wall Panel Obstructions  
W Panel Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Non-Impacted/Non-Outlier Panels</b>							
W01	7.67	6.50					14.17
W02	7.50	14.00					21.50
W04	8.50						8.50
W05	4.50	7.00	8.17				19.67
W07	7.00	6.00	6.50				19.50
W08	3.17	6.50					9.67
W09	8.50	6.50					15.00
W10	1.50	7.00	8.58				17.08
W11	2.67	10.50					13.17
W13	6.50	8.50	6.50	5.33			26.83
W14	8.33	4.00					12.33
W15	1.67	2.83	7.17	7.00			18.67
W16	0.50	9.67	10.00				20.17
W17	7.17	4.33					11.50
W19	7.50	6.50					14.00
W20	4.67	6.50					11.17
W21	8.50	6.50	5.50				20.50
W22	1.50	9.00	4.00				14.50
W23	9.00	9.00					18.00
W24	5.67	4.00					9.67
W26	6.50	6.50	5.00				18.00
W27	8.50	4.50	8.50				21.50
W31	2.50	8.50	6.50	6.50			24.00
W32	3.50	6.50	8.50				18.50
W33	12.67						12.67
W34	10.00	8.50	5.33				23.83
W35	6.50	9.17	9.50				25.17
W36	6.00	1.50	2.50	8.42	4.33		22.75
W37	2.67	2.00	6.50	6.00			17.17
W38	6.50	8.50	6.50				21.50
W39	2.92	10.92	12.50				26.34
W41	2.75	8.50					11.25
W43	8.50	5.33					13.83
<b>Average Duration Per Non-Impacted/Non-Outlier Panels:</b>							17.34

<b>Impacted Panels</b>							
W25	5.00	6.00	6.50	4.00			21.50
W28	8.50	8.50	7.00	8.50	7.00	8.50	48.00
W29	8.67	8.67	7.67				25.01
W30	5.17	2.33	4.50	10.50	9.50		32.00

Average Duration Per Non-Impacted/Non-Outlier Panels:	17.34
W-30 Duration:	32.00
<b>Average Additional Duration Due to Impacted W Panel:</b>	<b>14.66</b>

<b>Outlier Panels (not considered)</b>							
W03	8.50	6.50	8.50	8.42	10.50		42.42
W06	3.00	8.00	7.00	8.50	7.00	7.00	40.50
W12	7.50	6.50	8.50	6.50	8.50		37.50
W18	3.50	8.50	6.50	8.50	4.33	2.83	34.16
W40	7.50	8.50	6.50	10.50	10.00	10.00	53.00
W42	<b>MISSING</b>						-

SFMTA Contract No. 1252

Contractor:

Barnard Impregilo Healy JV (BIH)

## EVALUATION OF MERIT

### COR 043

**Recommendation:** Accept justification of Merit for COR 043. Occurrence of a wood pile within slurry diaphragm wall (SW) panel W30 constitutes a differing site condition. The time impact associated with this COR has not yet been determined.

**Facts:** On August 21<sup>st</sup> 2012, BIH's subcontractor, Condon Johnson/Nicholson JV (CJA-NCC), encountered a wood pile within panel W30 at the TBM Launch Box. The wood pile caused the SW to deviate from the designed excavation limits. It was determined the most efficient course of action was to proceed with excavating rather than backfilling the panel with lean concrete and re-excavating. BIH/CJA-NCC is claiming the presence of the wood pile caused 4 working days delay to the SW work.

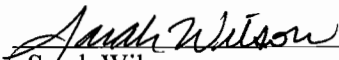
**Rationale for COR:** The contract does not indicate the presence of wood piles within the footprint of slurry wall diaphragm wall panel W28. The wood pile has prevented slurry diaphragm wall construction from occurring as originally planned.

**Justification:** RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions will cause scope of work to increase.

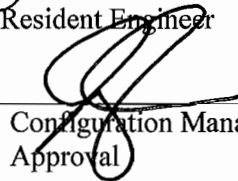
RE notes that the Differing Site Condition does not include:

1. All that is indicated in or may reasonably interpreted from the Contract Documents or Reference Documents;
2. All that could be seen on Site by diligent observation;
3. Conditions that are materially similar or characteristically the same as those indicated or described in the Contract Documents or Reference Documents.
4. Conditions where the location of a building component is in the proximity where indicated in or reasonably interpreted from the Contract Documents or Reference Documents

By:

  
Sarah Wilson  
Resident Engineer

11/28/12  
Date

  
Configuration Management Board  
Approval

11-28-12  
Date

**CMB Change No.: CMB - 140**

**Initial Implementing Change Control Procedure No.: 1252 - COR - 62**

**GENERAL**

Proposed Change Sponsor: S. Wilson Received by CMB: 11/06/2013  
(Date)

Affected Disciplines: Excavation and Ground Support

Impacts of Change LB - Panel P-9 Buried Obstruction

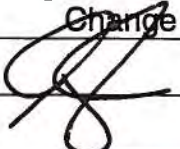
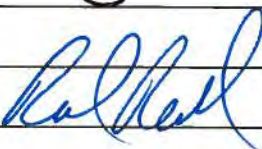

Change Order Request (COR 62) Amount Not To Exceed  
\$41,588.00

**Contract(s) Directly Affected by this Proposed Change:**

1250	1251	1252	1253	1254	1255	1256
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
(CP01)	(CP02)	(CP03)	(CP04)	(CP05)	(CP06)	(CP07)

**CONFIGURATION MANAGEMENT BOARD APPROVALS**

*Signatures*

	Agree with the Change	Disagree with the Change	Date
Program Director:			11-6-13
Deputy Program Manager:			
PM Project Services:			
PM Project Construction:			11/6/13
SFMTA O & M Manager:			
SFMTA Safety and Security			
SFCTA PMO			6 Nov 13

Comments

COR 062  
Panel P09

No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount	
Labor	1	Excavating Inefficiencies at Panel P-9 due to Clay Pipe	49.5	31	\$ 3,241.14	\$ 2,031.27	\$ (1,209.87)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 2,636.21
	2	Pour Lean Mix in P-9	49	53	\$ 3,553.75	\$ 3,893.47	\$ 339.72	EE contains total MHRs as contained in pour operation for panel P-12	Use CIA-NCC proposed labor for P-12 for all P-panel pours	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,723.61
	3	Excavate Lean Mix	9.99	23	\$ 654.12	\$ 1,538.05	\$ 883.93	C uses duration from excavation log. EE uses duration shown in QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 1,096.08
	4	Desand Panel P-9 After Lean Excavation	93	30	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,924.70
	5	Credit Desanding	-72	-9	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (2,584.56)
Equipment	1	Excavating Inefficiencies at Panel P-9 due to Clay Pipe	49.5	31	\$ 6,286.45	\$ 4,002.27	\$ (2,284.18)	C uses duration from excavation log. EE uses average durations from QC report.	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 5,144.36
	2	Pour Lean Mix in P-9	49	53	\$ 3,841.84	\$ 3,403.26	\$ (438.58)	Contractor's proposal contains 2ea screwsuckers both at active rates	Per agreement, one screwsucker to be at standby	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,622.55
	3	Excavate Lean Mix	9.99	23	\$ 1,247.40	\$ 2,901.31	\$ 1,653.91	C uses duration from excavation log. EE uses average shown in QC report.	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 2,074.36
	4	Desand Panel P-9 After Lean Excavation	93	30	\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 11,829.88
	5	Credit Desanding	-72	-9	\$ (13,847.11)	\$ (1,732.17)	\$ 12,114.94	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (7,789.64)
Materials	1	Excavating Inefficiencies at Panel P-9 due to Clay Pipe			\$ 618.75	\$ -	\$ (618.75)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	2	Pour Lean Mix in P-9			\$ 9,560.54	\$ 9,560.62	\$ 0.08			Agreed on material costs.	\$ 9,560.62
	3	Excavate Lean Mix			\$ 124.88	\$ -	\$ (124.88)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	4	Desand Panel P-9 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 550.20
	5	Credit Desanding			\$ -	\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CIA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ (91.70)
				Markup LM&E (15%)	\$ 5,434.23	\$ 4,975.59	\$ (458.64)			Markup LM&E (15%)	\$ 5,054.50
				Sub. Bond/Insurance (0.52%)	\$ 216.64	\$ 198.36	\$ (18.28)			Sub. Bond/Insurance (0.52%)	\$ 201.51
				<b>CIA-NCC Subtotal</b>	<b>\$ 41,879.07</b>	<b>\$ 38,344.58</b>	<b>\$ (3,534.49)</b>			<b>CIA-NCC Subtotal</b>	<b>\$ 38,952.67</b>
				Prime Markup (5%)	\$ 2,093.95	\$ 1,917.23	\$ (176.72)			Prime Markup (5%)	\$ 1,947.63
				Prime Bond/Insurance (1.68%)	\$ 738.75	\$ 676.40	\$ (62.35)			Prime Bond/Insurance (1.68%)	\$ 687.13
				<b>Total</b>	<b>\$ 44,711.78</b>	<b>\$ 40,938.21</b>	<b>\$ (3,773.57)</b>			<b>RE Recommended Negotiated Amount</b>	<b>\$ 41,587.43</b>



**Estimate Summary**

Scope/Background:

A differing site condition was encountered while performing slurry wall construction along the west side of the Launch Box (PANEL P-9). Scope of work includes excavation inefficiencies, lean mix back filling and re-excavation as required to complete excavation meeting verticality requirements.

Estimated Cost:


Labor	\$ 8,802.94
Material	\$ 10,019.12
Equipment	\$ 14,348.57
2nd Tier Sub	\$ -
Markups	\$ 7,767.58
<b>Total</b>	<b>\$ 40,938.21</b>

Stakeholders: SFMTA, BIH, CJA-NCC


Date of initial discovery: 8/30/12

List of attached documents:

- Proposal/estimate comparison
- Detailed labor/equipment/materials estimate

  
 Estimate Prepared By: Ben Volberding

11/5/13  
 Date:

  
 Estimate Checked By: Matt Hembd

11/5/13  
 Date:

COR 062

No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	
Labor	1	Excavating Inefficiencies at Panel P-9 due to Clay Pipe	49.5	31.0228125	\$ 3,241.14	\$ 2,031.27	\$ (1,209.87)	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in P-9	49	53	\$ 3,553.75	\$ 3,893.47	\$ 339.72	EE contains total MHRs as contained in pour operation for panel P-12	Use CIA-NCC proposed labor for P-12 for all P-panel pours
	3	Excavate Lean Mix	9.99	23	\$ 654.12	\$ 1,538.05	\$ 883.93	C uses duration from excavation log. EE uses duration shown in QC report	Use QC reported durations as this was officially submitted at time of work
	4	Desand Panel P-9 After Lean Excavation	93	30	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding	-72	-9	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Equipment	1	Excavating Inefficiencies at Panel P-9 due to Clay Pipe			\$ 6,286.45	\$ 4,002.27	\$ (2,284.18)	C uses duration from excavation log. EE uses average durations from QC report.	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in P-9			\$ 3,841.84	\$ 3,403.26	\$ (438.58)	Contractor's proposal contains 2ea screwsuckers both at active rates	Per agreement, one screwsucker to be at standby
	3	Excavate Lean Mix			\$ 1,247.40	\$ 2,901.31	\$ 1,653.91	C uses duration from excavation log. EE uses average shown in QC report.	Use QC reported durations as this was officially submitted at time of work
	4	Desand Panel P-9 After Lean Excavation			\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding			\$ (13,847.11)	\$ (1,732.17)	\$ 12,114.94	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Materials	1	Excavating Inefficiencies at Panel P-9 due to Clay Pipe			\$ 618.75	\$ -	\$ (618.75)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	2	Pour Lean Mix in P-9			\$ 9,560.54	\$ 9,560.62	\$ 0.08		
	3	Excavate Lean Mix			\$ 124.88	\$ -	\$ (124.88)	No cost breakdown included in COR package. Most likely subsistence?	Provide backup
	4	Desand Panel P-9 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	5	Credit Desanding			\$ -	\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CIA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.
Markup LM&E - 15%				\$ 5,434.23	\$ 4,975.59	\$ (458.64)			
Sub. Bond/Insurance 0.52%				\$ 216.64	\$ 198.36	\$ (18.28)			
CIA-NCC Subtotal				\$ 41,879.07	\$ 38,344.58	\$ (3,534.49)			
Prime Markup - 5%				\$ 2,093.95	\$ 1,917.23	\$ (176.72)			
Prime Bond/Insurance 1.68%				\$ 738.75	\$ 676.40	\$ (62.35)			
<b>Total</b>				<b>\$ 44,711.78</b>	<b>\$ 40,938.21</b>	<b>\$ (3,773.57)</b>			
RE Recommended NTE Amount				\$ 42,825.00	\$40,938 + \$1,887 (Misc. Materials/Equipment Rate Differences)				

Activity No.	Activity	Hourly rates:														Labor totals	Excavating Spread [#1]	Koden (KDM-01)	Pour Lean Mix Spread [#2]	Excavate Lean Mix Spread [#3]	Desand Spread [#4] (Hours reduced 50%)	Desand Spread [#4] (Hours reduced 50%)	Equipment Totals			
		\$52.79	\$69.66	\$52.60	\$69.38	\$52.48	\$73.24	\$96.17	\$70.59	\$68.87	\$48.99	\$75.85	\$100.09	\$73.59	\$77.25									\$100.71	\$370.54	\$26.20
		Laborer (G1)	Laborer (G1) 1.5x OT	Laborer (G2)	Laborer (G2) 1.5x OT	Laborer (G3)	Operating Engineer (OE) (G2A)	Operating Engineer (OE) (G2A) 1.5x OT	Operating Engineer (OE) (G3)	Operating Engineer (OE) (G4)	Operating Engineer (OE) (APP1)	OE/Pile Driver (PD) (G1)	OE/Pile Driver (PD) (G1) 1.5x OT	OE/Pile Driver (PD) (G2)	Pile Driver Jourm	Pile Driver Jourm 1.5x OT										
1	Excavating Inefficiencies at Panel P-9 due to Clay Pipe			10.34			10.34		10.34								\$ 2,031.27	10.34	6.51							\$ 4,002.27
2	Pour Lean Mix in P-9			8	2	4	8	2				8	1		16	4	\$ 3,893.47			8						\$ 3,403.26
3	Excavate Lean Mix			7.83			7.83		7.83								\$ 1,538.05				7.83					\$ 2,901.31
4	Desand Panel P-9 After Lean Excavation									10	10			10			\$ 1,914.50					5				\$ 5,773.90
5	Credit Desanding									-3	-3			-3			\$ (574.35)							-1.5		\$ (1,732.17)
<b>Total</b>																	<b>\$ 8,802.94</b>								<b>\$ 14,348.57</b>	

Labor	\$	8,802.94
Material	\$	10,019.12
Equipment	\$	14,348.57
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	4,975.59
1st Tier Sub Bond/Insurance - 0.52%	\$	198.36
<b>CJA-NCC Subtotal</b>	<b>\$</b>	<b>38,344.58</b>
Prime - Markup - 5%	\$	1,917.23
Prime - Bond/Insurance - 1.68%	\$	676.40
<b>Total Amount</b>	<b>\$</b>	<b>40,938.21</b>

**Assumptions:**  
 -Excavation inefficiencies and excavate lean mix durations based on SFMTA review of BIH QC reports  
 -Koden durations used are based on excavation logs submitted within COR packages  
 -All labor/equipment spreads based on agreements made during meetings between SFMTA, BJH and CJA-NCC

Excavating Inefficiencies [#1]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Pour Lean Mix [#2]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
7155	Linkbelt TCC750	\$ 286.55	0.24	\$ 68.77	\$ 286.55
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 38.10
					\$ 425.41

Excavate Lean Mix [#3]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Desand Panel After Lean Excavation [#4]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AA	Generator	\$ 152.54	0.11	\$ 16.78	\$ 152.54
21134-AD	Deck Crane	\$ 32.36	0.27	\$ 8.74	\$ 32.36
21134-AO	Air Compressor	\$ 20.01	0.12	\$ 2.40	\$ 20.01
A29160T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29220T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A32350T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A35250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60310T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60320T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
ABM3001	Bentonite Mixer	\$ 24.87	0.40	\$ 9.95	\$ 24.87
DBD3002	Desander	\$ 218.75	0.41	\$ 89.69	\$ 218.75
ECB2001	20' Container	\$ 12.19	0.38	\$ 4.63	\$ 12.19
ECP1007	VFD Panel	\$ 47.43	0.17	\$ 8.06	\$ 47.43
MP543	Mission Pump	\$ 46.55	0.53	\$ 24.67	\$ 46.55
MP4313	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4316	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP861	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4317	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP6805	Mission Pump	\$ 90.71	0.27	\$ 24.49	\$ 90.71
SSP20201	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
WPG0001	Water Pump	\$ 40.18	0.61	\$ 24.51	\$ 40.18
					\$ 1,154.78

<b>Color Coding:</b>
Compensated using Active Rates
Compensated using Standby Rates

Material	Qty.	Unit	Unit Price	Extension
Concrete	86	CY	\$ 111.17	\$ 9,560.62
Sodium Bicarbonate	30	Bags	\$ 18.34	\$ 550.20
	-5	Bags	\$ 18.34	\$ (91.70)
				\$ -
<b>Total</b>				<b>\$ 10,019.12</b>

2nd Tier Sub Quote

\$ -



Slurry Wall Panel Obstructions  
P Panel Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Non-Impacted/Non-Outlier Panels</b>							
P01	7.50	8.50					16.00
P02	6.50	8.50	10.00				25.00
P03	9.50	8.50					18.00
P05	5.00	6.50					11.50
P06	9.00	7.50	3.00				19.50
P07	8.67	6.83					15.50
P11	9.50	8.50					18.00
P13	10.00						10.00
P14	3.50	8.50					12.00
P15	7.50						7.50
P16	8.50	8.00					16.50
P17	8.50						8.50
P18	2.00	8.50					10.50
P19	3.50	8.50					12.00
P20	4.17	8.50					12.67
P21	8.50	7.50	8.50				24.50
P22	4.67	8.17					12.84
P23	9.50						9.50
P24	3.67	4.83	7.33				15.83
P25	2.67	8.50	5.00				16.17
P26	6.83						6.83
P27	10.00						10.00
P28	7.50	7.83					15.33
P29	8.50	4.58					13.08
P30	11.00						11.00
P31	15.67						15.67
P32	2.67	8.50					11.17
P33	7.00	8.50					15.50
P34	3.00	10.50					13.50
P35	8.50						8.50
P36	8.50						8.50
P37	8.50	7.50					16.00
<b>Average Duration Per Non-Impacted/Non-Outlier Panels:</b>							<b>13.66</b>

<b>Impacted Panels</b>							
P09	5.00	9.50	9.50				24.00
P10	8.50	9.67	8.50				26.67
P12	10.17	7.50	13.00				30.67
<b>Average Duration Per Impacted Panel:</b>							<b>27.11</b>

Average Duration Per Non-Impacted/Non-Outlier Panels:	13.66
P-09 Duration:	24.00
<b>Additional Duration Due to Buried Obstruction:</b>	<b>10.34</b>

<b>Outlier Panels (not considered)</b>							
P08	8.50	4.00	5.67	8.50	5.17		31.84
P04	<b>Missing</b>						

Slurry Wall Panel Obstructions  
 P Panel Lean Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Impacted Panels</b>							
P09	2.83	5.00					7.83
P12	4.00	1.58					5.58

SFMTA Contract No. 1252

Contractor:

Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT

COR 062

**Recommendation:** Accept justification of Merit for COR 062, Launch Box Panel P-9 Buried Obstruction.

**Facts:** On November 7<sup>th</sup> 2012, the Contractor encountered concrete encasement around a 12 inch clay sewer pipe within Slurry Wall (SW) panel P-9 at the TBM Launch Box approximately 8 feet below the top of the SW guidewall. The concrete encasement caused the SW to deviate from the designed excavation limits. To correct the verticality of the panel excavation, the panel was backfilled with lean concrete and re-excavated as agreed upon by the RE.

This change affects a critical path activity. SFMTA inspectors documented an impact of approximately 5 days to SW P-9. We have asked the Contractor to combine the TIA for CORs 62, 65, and 67 and we have not yet received the TIA.

**Justification:** Drawing UD-502, Rev. 0 does not indicate the presence of the concrete encasement within the footprint of SW panel P-9. The concrete encasement prevented SW construction from occurring as originally planned. RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions caused the scope of work to increase.

**Change Type:** (2) Unforeseen Condition

By:

  
\_\_\_\_\_  
Sarah Wilson  
Resident Engineer

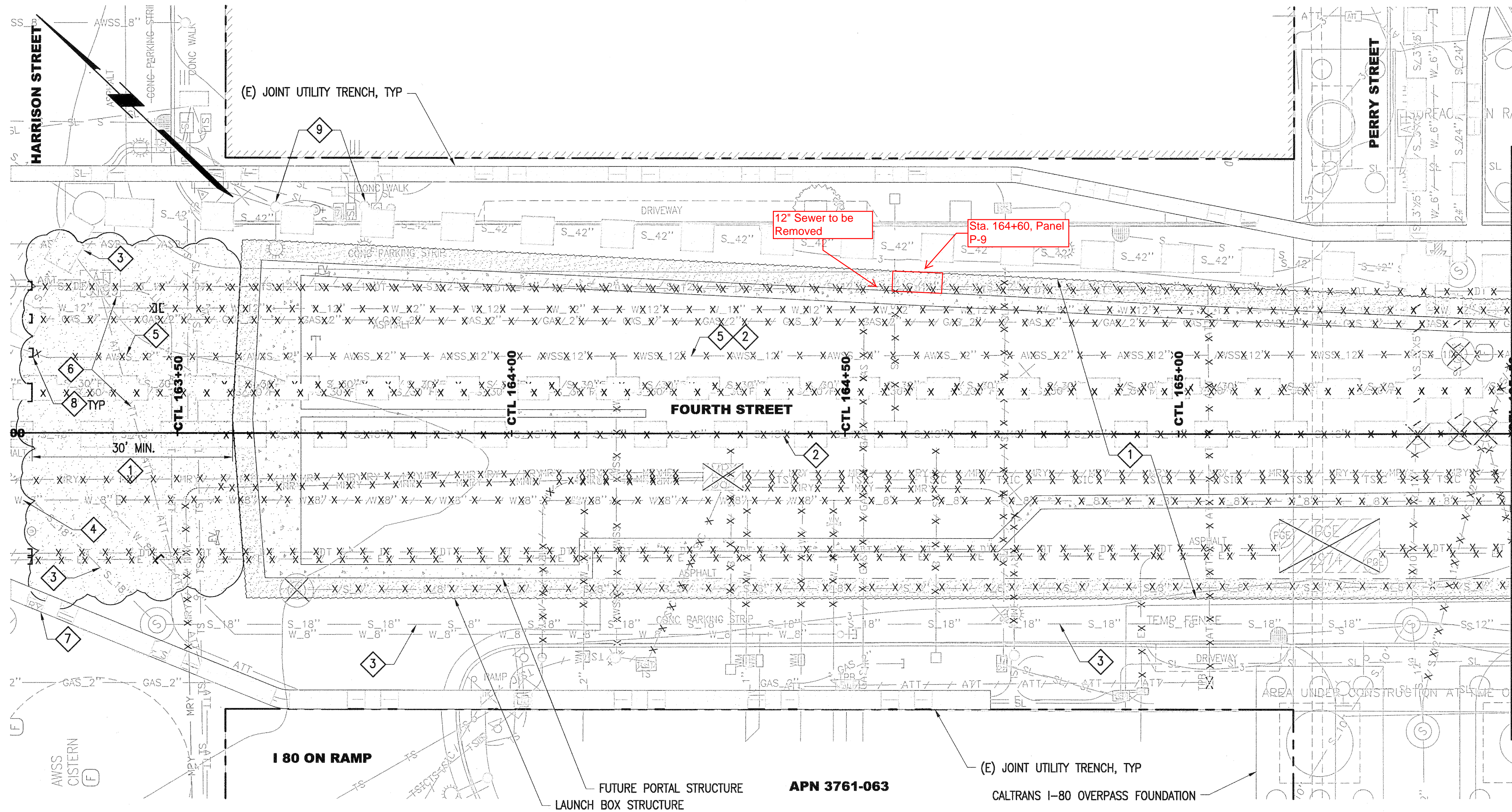
1/23/13  
Date

  
\_\_\_\_\_  
Configuration Management Board  
Approval

1-23-13  
Date

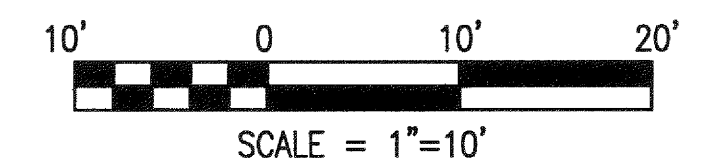


S:\6nos003\m544.1\FinalDesign\Drawing-821\2-Civil\Utility Demolition\Sheet Files CP03\M54423UD502.dwg FBayani Wed Jan 26, 2011 - 2:34 pm UD-502



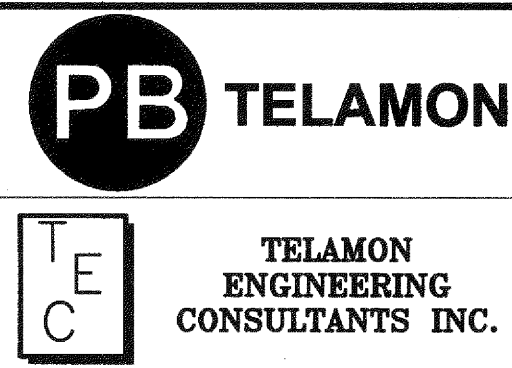
**NOTES:**

1. DEMOLISH AND REMOVE ALL ABANDONED UTILITY FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, WITHIN LIMITS OF LAUNCH BOX STRUCTURE AND TO THE LIMITS INDICATED, UNLESS OTHERWISE NOTED.
2. ACTIVE UTILITIES SHALL BE MAINTAINED UNTIL RELOCATION OR CUT OVER, UNLESS OTHERWISE NOTED. COORDINATE DEMOLITION WITH LAUNCH BOX CONSTRUCTION PHASING.
3. PROTECT (E) SEWER.
4. SEE (WD) DRAWINGS FOR ABANDONEMENT AND REMOVAL OF WATER FACILITIES.
5. SEE (AW) DRAWINGS FOR ABANDONMENT AND REMOVAL OF AWSS FACILITIES.
6. PROTECT (E) AT&T FACILITIES.
7. PROTECT (E) JOINT TRENCH.
8. CAP OR PLUG ALL ABANDONED FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, AT JET GROUT OR SLURRY WALL LIMIT.
9. (E) STREET LIGHT POLE. TEMPORARILY REMOVE POLE IF NECESSARY FOR LAUNCH BOX STRUCTURE CONSTRUCTION AND REINSTALL AFTER PORTAL CONSTRUCTION.

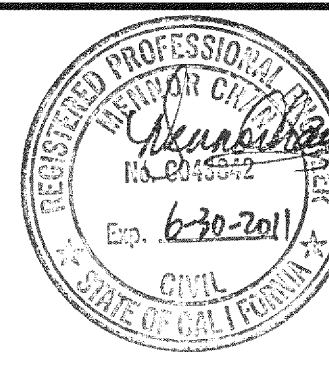


**CONFORMED**

DATE	ISSUED FOR BID	DESCRIPTION	REV. NO.	BY	CHECKED	APPROVED
01/21/2011			0			



DESIGNED: M. DEFORGE  
 DRAWN: E. MATIAS  
 CHECKED: D. ZUURING  
 REVIEWED: M. CHAN  
 RECOMMENDED: M. FOWLER  
 APPROVED: R. EDWARDS  
 DATE: JAN 21 2011



CITY AND COUNTY OF SAN FRANCISCO  
**MUNICIPAL TRANSPORTATION AGENCY**

APPROVED  
 CARTER R. ROHAN  
 EXECUTIVE DIRECTOR/CEO

THIRD STREET LIGHT RAIL PROGRAM  
 PHASE 2 - CENTRAL SUBWAY  
 TUNNELS

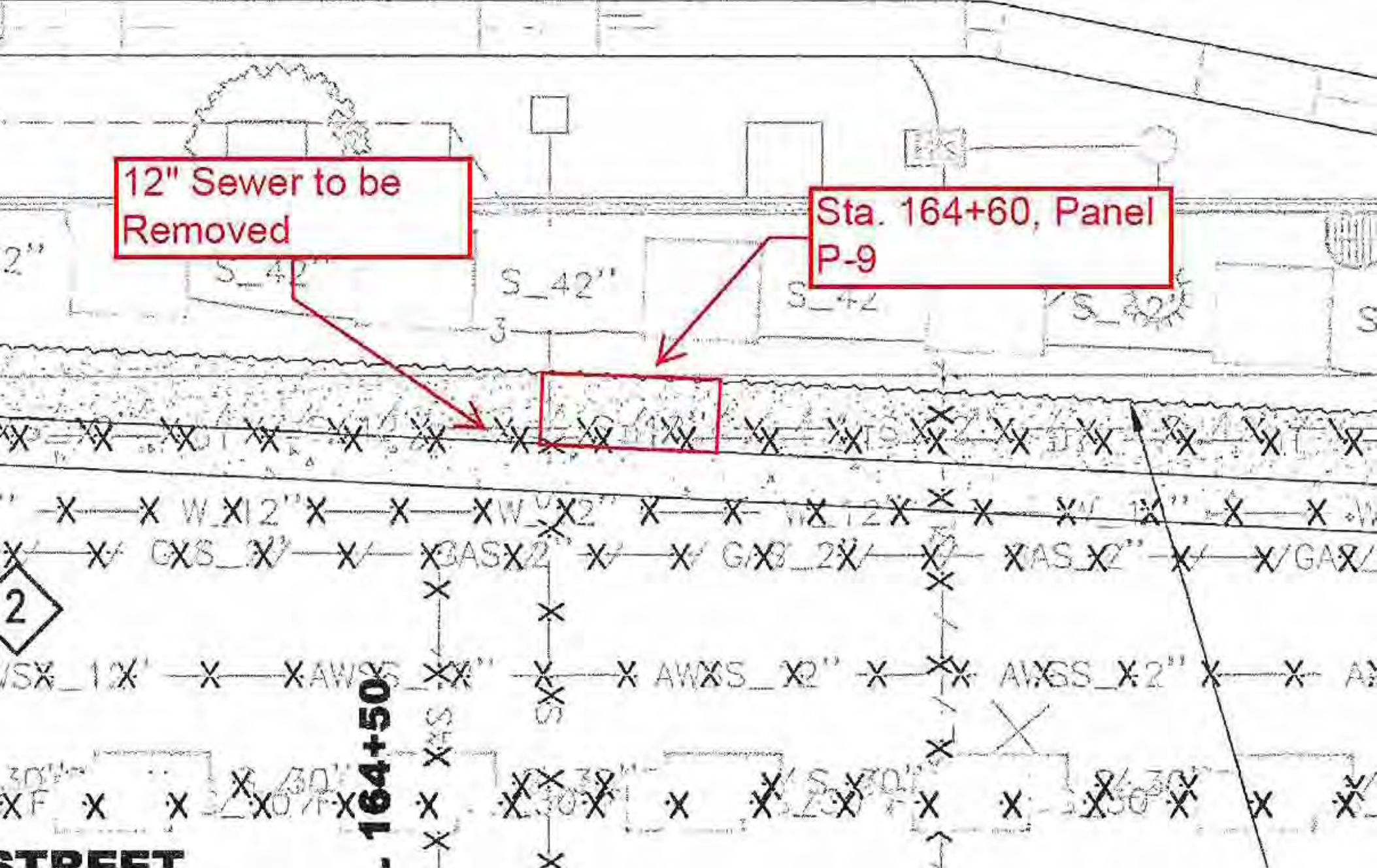
UTILITY DEMOLITION  
 FOURTH STREET PORTAL  
 CTL 163+25 TO 165+50

CONTRACT NO. <b>1252</b>	
SFMTA CONTROL NO. <b>CL-18032</b>	
DRAWING NO. <b>UD-502</b>	REVISION <b>0</b>
SHEET NO. <b>85</b>	



12" Sewer to be Removed

Sta. 164+60, Panel P-9



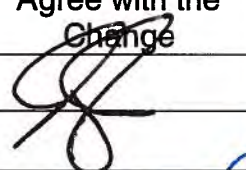
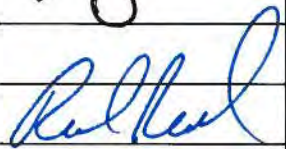







**CMB Change No.: CMB - 141**

**Initial Implementing Change Control Procedure No.:1252 - COR - 65**

GENERAL						
Proposed Change Sponsor:	S. Wilson	Received by CMB:	11/06/2013			
			(Date)			
Affected Disciplines:	Excavation and Ground Support					
Impacts of Change	LB - Panel P-12 Buried Obstruction					
	Change Order Request (COR 65) Amount Not To Exceed \$40,523.00					
<b>Contract(s) Directly Affected by this Proposed Change:</b>						
1250	1251	1252	1253	1254	1255	1256
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
(CP01)	(CP02)	(CP03)	(CP04)	(CP05)	(CP06)	(CP07)
CONFIGURATION MANAGEMENT BOARD APPROVALS						
<i>Signatures</i>						
	Agree with the Change	Disagree with the Change	Date			
Program Director:			11-6-13			
Deputy Program Manager:						
PM Project Services:			11/6/13			
PM Project Construction:						
SFMTA O & M Manager:						
SFMTA Safety and Security			6 Nov 13			
SFCTA PMO						
Comments						

COR 065  
Panel P12

No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount	
Labor	1	Excavating Inefficiencies at Panel P-12 due to Clay Pipe	25.26	51.0328125	\$ 1,653.96	\$ 3,341.46	\$ 1,687.50	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 2,497.71
	2	Pour Lean Mix in P-12	53	53	\$ 3,893.44	\$ 3,893.47	\$ 0.03			Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,893.46
	3	Excavate Lean Mix	21.51	17	\$ 1,408.42	\$ 1,096.08	\$ (312.34)	C uses duration from excavation log. EE uses duration shown in QC report	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 1,252.25
	4	Desand Panel P-12 After Lean Excavation	93	30	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,924.70
	5	Credit Desanding	-72	-9	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (2,584.56)
Equipment	1	Excavating Inefficiencies at Panel P-12 due to Clay Pipe	25.26	51.0328125	\$ 3,195.35	\$ 6,377.61	\$ 3,182.26	C uses duration from excavation log. EE uses average durations from QC report.	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 4,786.48
	2	Pour Lean Mix in P-12	53	53	\$ 3,400.24	\$ 3,403.26	\$ 3.02			Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 3,401.75
	3	Excavate Lean Mix	21.51	17	\$ 2,677.28	\$ 2,067.60	\$ (609.68)	C uses duration from excavation log. EE uses average shown in QC report.	Use QC reported durations as this was officially submitted at time of work	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 2,372.44
	4	Desand Panel P-12 After Lean Excavation	93	30	\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 11,829.88
	5	Credit Desanding	-72	-9	\$ (13,847.11)	\$ (1,732.17)	\$ 12,114.94	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ (7,789.64)
Materials	1	Excavating Inefficiencies at Panel P-12 due to Clay Pipe			\$ 315.75	\$ -	\$ (315.75)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	2	Pour Lean Mix in P-12			\$ 8,790.96	\$ 8,790.83	\$ (0.13)			Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 8,790.83
	3	Excavate Lean Mix			\$ 268.88	\$ -	\$ (268.88)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	4	Desand Panel P-12 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ 550.20
	5	Credit Desanding				\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CJA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.	Subsistence costs and 'costs above straight time' removed. Agreed on material costs.	\$ (91.70)
				Markup LM&E (15%)	\$ 4,905.54	\$ 5,221.60	\$ 316.06			Markup LM&E (15%)	\$ 4,925.07
				Sub. Bond/Insurance (0.52%)	\$ 195.57	\$ 208.17	\$ 12.60			Sub. Bond/Insurance (0.52%)	\$ 196.35
				<b>CJA-NCC Subtotal</b>	<b>\$ 37,804.72</b>	<b>\$ 40,240.45</b>	<b>\$ 2,435.73</b>			<b>CJA-NCC Subtotal</b>	<b>\$ 37,955.20</b>
				Prime Markup (5%)	\$ 1,890.24	\$ 2,012.02	\$ 121.79			Prime Markup (5%)	\$ 1,897.76
				Prime Bond/Insurance (1.68%)	\$ 666.88	\$ 709.84	\$ 42.97			Prime Bond/Insurance (1.68%)	\$ 669.53
				<b>Total</b>	<b>\$ 40,361.83</b>	<b>\$ 42,962.31</b>	<b>\$ 2,600.48</b>			<b>RE Recommended Negotiated Amount</b>	<b>\$ 40,522.49</b>

## Estimate Summary

### Scope/Background:

A differing site condition was encountered while performing slurry wall construction along the east side of the Launch Box (PANEL P-12). Scope of work includes excavation inefficiencies, lean mix back filling and re-excavation as required to complete excavation meeting verticality requirements.

### Estimated Cost:


Labor	\$ 9,671.16
Material	\$ 9,249.33
Equipment	\$ 15,890.19
2nd Tier Sub	\$ -
Markups	\$ 8,151.63
<b>Total</b>	<b>\$ 42,962.31</b>

Stakeholders: SFMTA, BIH, CIA-NCC


Date of initial discovery:

### List of attached documents:

- Proposal/estimate comparison
- Detailed labor/equipment/materials estimate

  
\_\_\_\_\_  
Estimate Prepared By: Ben Volberding

11/5/13  
Date:

  
\_\_\_\_\_  
Estimate Checked By: Matt Hembd

11/5/13  
Date:

COR 065									
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	
Labor	1	Excavating Inefficiencies at Panel P-12 due to Clay Pipe	25.26	51.0328125	\$ 1,653.96	\$ 3,341.46	\$ 1,687.50	C uses duration from excavation log. EE uses average durations from QC report	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in P-12	53	53	\$ 3,893.44	\$ 3,893.47	\$ 0.03		
	3	Excavate Lean Mix	21.51	17	\$ 1,408.42	\$ 1,096.08	\$ (312.34)	C uses duration from excavation log. EE uses duration shown in QC report	Use QC reported durations as this was officially submitted at time of work
	4	Desand Panel P-12 After Lean Excavation	93	30	\$ 5,934.90	\$ 1,914.50	\$ (4,020.40)	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding	-72	-9	\$ (4,594.76)	\$ (574.35)	\$ 4,020.41	Net delta b/t activities 4 and 5 is equal in both Contractor's proposal and EE	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Equipment	1	Excavating Inefficiencies at Panel P-12 due to Clay Pipe			\$ 3,195.35	\$ 6,377.61	\$ 3,182.26	C uses duration from excavation log. EE uses average durations from QC report.	Use QC reported durations as this was officially submitted at time of work
	2	Pour Lean Mix in P-12			\$ 3,400.24	\$ 3,403.26	\$ 3.02		
	3	Excavate Lean Mix			\$ 2,677.28	\$ 2,067.60	\$ (609.68)	C uses duration from excavation log. EE uses average shown in QC report.	Use QC reported durations as this was officially submitted at time of work
	4	Desand Panel P-12 After Lean Excavation			\$ 17,885.85	\$ 5,773.90	\$ (12,111.95)	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
	5	Credit Desanding			\$ (13,847.11)	\$ (1,732.17)	\$ 12,114.94	Net delta b/t activities 4 and 5 is close to equal in both Contractor's proposal and EE. Small differences in equipment rates used.	Use EE MHRs to eliminate confusion regarding 24+ hours desanding operations
Materials	1	Excavating Inefficiencies at Panel P-12 due to Clay Pipe			\$ 315.75	\$ -	\$ (315.75)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	2	Pour Lean Mix in P-12			\$ 8,790.96	\$ 8,790.83	\$ (0.13)		
	3	Excavate Lean Mix			\$ 268.88	\$ -	\$ (268.88)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	4	Desand Panel P-12 After Lean Excavation			\$ 1,720.45	\$ 550.20	\$ (1,170.25)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	5	Credit Desanding			\$ -	\$ (91.70)	\$ (91.70)	Sub including subsistence costs and costs for "straight time above scale". Note, CIA-NCC cost summary contains bust and does not include credit shown on detailed summary sheet.	SFMTA will only compensate using approved labor rates.
Markup LM&E (15%)				\$ 4,905.54	\$ 5,221.60	\$ 316.06			
Sub. Bond/Insurance (0.52%)				\$ 195.57	\$ 208.17	\$ 12.60			
CIA-NCC Subtotal				\$ 37,804.72	\$ 40,240.45	\$ 2,435.73			
Prime Markup (5%)				\$ 1,890.24	\$ 2,012.02	\$ 121.79			
Prime Bond/Insurance (1.68%)				\$ 666.88	\$ 709.84	\$ 42.97			
<b>Total</b>				<b>\$ 40,361.83</b>	<b>\$ 42,962.31</b>	<b>\$ 2,600.48</b>			
RE Recommended NTE Amount				\$ 40,361.83					

Hourly rates:		\$52.79	\$69.66	\$52.60	\$69.38	\$52.48	\$73.24	\$96.17	\$70.59	\$68.87	\$48.99	\$75.85	\$100.09	\$73.59	\$77.25	\$100.71	\$370.54	\$26.20	\$425.41	\$370.54	\$1,154.78	\$1,154.78	
Activity No.	Activity	Laborer (G1)	Laborer (G1) 1.5x OT	Laborer (G2)	Laborer (G2) 1.5x OT	Laborer (G3)	Operating Engineer (OE) (G2A)	Operating Engineer (OE) (G2A) 1.5x OT	Operating Engineer (OE) (G3)	Operating Engineer (OE) (G4)	Operating Engineer (OE) (APP1)	OE/Pile Driver (PD) (G1)	OE/Pile Driver (PD) (G1) 1.5x OT	OE/Pile Driver (PD) (G2)	Pile Driver Journ	Pile Driver Journ 1.5x OT	Excavating Spread [#1]	Koden (KDM-01)	Pour Lean Mix Spread [#2]	Excavate Lean Mix Spread [#3]	Desand Spread [#4]	Desand Spread [#4] (Hours reduced 50%)	Equipment Totals
1	Excavating Inefficiencies at Panel P-12 due to Wood Pile			17.01			17.01		17.01								\$ 3,341.46	17.01	2.84				\$ 6,377.61
2	Pour Lean Mix in P-12			8	2	4	8	2				8	1		16	4	\$ 3,893.47		8				\$ 3,403.26
3	Excavate Lean Mix			5.58			5.58		5.58								\$ 1,096.08			5.58			\$ 2,067.60
4	Desand Panel P-12 After Lean Excavation									10	10			10			\$ 1,914.50				5		\$ 5,773.90
5	Credit Desanding									-3	-3			-3			\$ (574.35)					-1.5	\$ (1,732.17)
<b>Total</b>																	\$ 9,671.16						\$ 15,890.19

Labor	\$	9,671.16
Material	\$	9,249.33
Equipment	\$	15,890.19
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	5,221.60
1st Tier Sub Bond/Insurance - 0.52%	\$	208.17
<b>CJA-NCC Subtotal</b>	\$	<b>40,240.45</b>
Prime - Markup - 5%	\$	2,012.02
Prime - Bond/Insurance - 1.68%	\$	709.84
<b>Total Amount</b>	\$	<b>42,962.31</b>

<b>Assumptions:</b>
-Excavation inefficiencies and excavate lean mix durations based on SFMTA review of BIH QC reports
-Koden durations used are based on excavation logs submitted within COR packages
-All labor/equipment spreads based on agreements made during meetings between SFMTA, BJH and CIA-NCC



Excavating Inefficiencies [#1]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Pour Lean Mix [#2]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
7155	Linkbelt TCC750	\$ 286.55	0.24	\$ 68.77	\$ 286.55
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 38.10
					\$ 425.41

Excavate Lean Mix [#3]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					\$ 370.54

Desand Panel After Lean Excavation [#4]					
CJ-NC Code:	Description	SFMTA Approved Rate	Standby Factor	Standby Rate	Extended
21134-AA	Generator	\$ 152.54	0.11	\$ 16.78	\$ 152.54
21134-AD	Deck Crane	\$ 32.36	0.27	\$ 8.74	\$ 32.36
21134-AO	Air Compressor	\$ 20.01	0.12	\$ 2.40	\$ 20.01
A29160T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29220T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A29250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A32350T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A35250T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60310T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
A60320T	Slurry Tank	\$ 3.13	0.60	\$ 1.88	\$ 3.13
ABM3001	Bentonite Mixer	\$ 24.87	0.40	\$ 9.95	\$ 24.87
DBD3002	Desander	\$ 218.75	0.41	\$ 89.69	\$ 218.75
ECB2001	20' Container	\$ 12.19	0.38	\$ 4.63	\$ 12.19
ECP1007	VFD Panel	\$ 47.43	0.17	\$ 8.06	\$ 47.43
MP543	Mission Pump	\$ 46.55	0.53	\$ 24.67	\$ 46.55
MP4313	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4316	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP861	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP4317	Mission Pump	\$ 42.13	0.58	\$ 24.44	\$ 42.13
MP6805	Mission Pump	\$ 90.71	0.27	\$ 24.49	\$ 90.71
SSP20201	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20204	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
SSP20205	Screwsucker	\$ 92.92	0.41	\$ 38.10	\$ 92.92
WPG0001	Water Pump	\$ 40.18	0.61	\$ 24.51	\$ 40.18
					\$ 1,154.78

<b>Color Coding:</b>
Compensated using Active Rates
Compensated using Standby Rates



Material	Qty.	Unit	Unit Price	Extension
Concrete	77.5	CY	\$ 113.43	\$ 8,790.83
Sodium Bicarbonate	30	Bags	\$ 18.34	\$ 550.20
	-5	Bags	\$ 18.34	\$ (91.70)
				\$ -
<b>Total</b>				<b>\$ 9,249.33</b>

2nd Tier Sub Quote

\$ -

Slurry Wall Panel Obstructions  
P Panel Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Non-Impacted/Non-Outlier Panels</b>							
P01	7.50	8.50					16.00
P02	6.50	8.50	10.00				25.00
P03	9.50	8.50					18.00
P05	5.00	6.50					11.50
P06	9.00	7.50	3.00				19.50
P07	8.67	6.83					15.50
P11	9.50	8.50					18.00
P13	10.00						10.00
P14	3.50	8.50					12.00
P15	7.50						7.50
P16	8.50	8.00					16.50
P17	8.50						8.50
P18	2.00	8.50					10.50
P19	3.50	8.50					12.00
P20	4.17	8.50					12.67
P21	8.50	7.50	8.50				24.50
P22	4.67	8.17					12.84
P23	9.50						9.50
P24	3.67	4.83	7.33				15.83
P25	2.67	8.50	5.00				16.17
P26	6.83						6.83
P27	10.00						10.00
P28	7.50	7.83					15.33
P29	8.50	4.58					13.08
P30	11.00						11.00
P31	15.67						15.67
P32	2.67	8.50					11.17
P33	7.00	8.50					15.50
P34	3.00	10.50					13.50
P35	8.50						8.50
P36	8.50						8.50
P37	8.50	7.50					16.00
<b>Average Duration Per Non-Impacted/Non-Outlier Panels:</b>							<b>13.66</b>

Impacted Panels							
P09	5.00	9.50	9.50				24.00
P10	8.50	9.67	8.50				26.67
P12	10.17	7.50	13.00				30.67

Average Duration Per Non-Impacted/Non-Outlier Panels:	13.66
P-12 Duration:	30.67
<b>Additional Duration Due to Buried Obstruction:</b>	<b>17.01</b>

Outlier Panels (not considered)								
P08	8.50	4.00	5.67	8.50	5.17		31.84	
P04	Missing							

Slurry Wall Panel Obstructions  
 P Panel Lean Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Impacted Panels</b>							
P09	2.83	5.00					<b>7.83</b>
P12	4.00	1.58					<b>5.58</b>

SFMTA Contract No. 1252

Contractor:

Barnard Impregilo Healy JV (BIH)

**EVALUATION OF MERIT**

**COR 065**


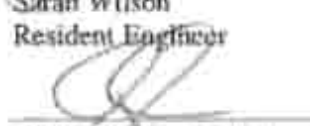
**Recommendation:** Accept justification of Merit for COR 065, Launch Box Panel P-12 Buried Obstruction.

**Facts:** On November 13<sup>th</sup> 2012, the Contractor encountered concrete encasement around a 12 inch clay sewer pipe within Slurry Wall (SW) panel P-12 at the TBM Launch Box approximately 7 feet below the top of the SW guidewall. The concrete encasement caused the SW to deviate from the designed excavation limits. To correct the verticality of the panel excavation, the panel was backfilled with lean concrete and re-excavated as agreed upon by the RE.

This change affects a critical path activity. SFMTA inspectors documented an impact of approximately 3 days to SW P-12. We have asked the Contractor to combine the TIA for CORs 62, 65, and 67 and we have not yet received the TIA.

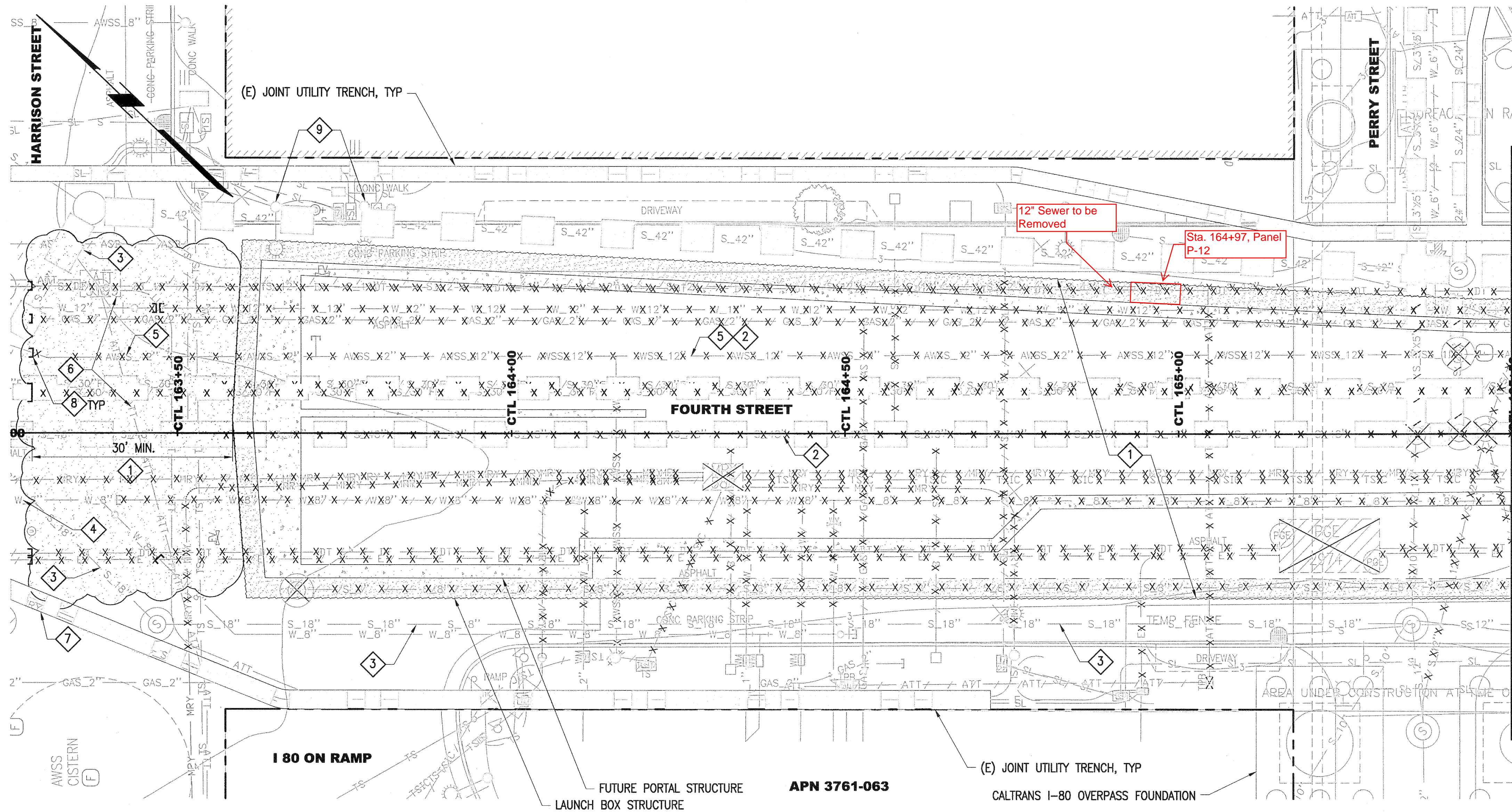
**Justification:** Drawing UD-502, Rev. 0 does not indicate the presence of the concrete encasement within the footprint of SW panel P-12. The concrete encasement prevented SW construction from occurring as originally planned. RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions caused the scope of work to increase.

**Change Type:** (2) Unforeseen Condition

By:		<u>1/23/13</u>
	Sarah Wilson	Date
	Resident Engineer	
		<u>1-23-13</u>
	Configuration Management Board	Date
	Approval	

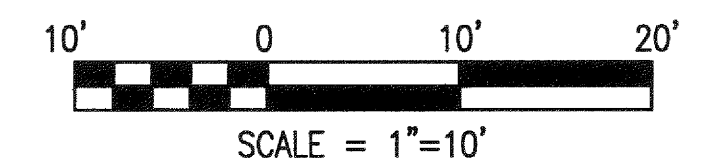


S:\6nos003\m544.1\FinalDesign\Drawing-821\2-Civil\Utility Demolition\Sheet Files CP03\M54423UD502.dwg FBayani Wed Jan 26, 2011 2:34 pm UD-502



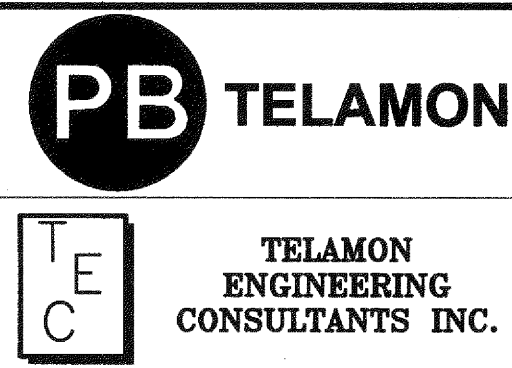
**NOTES:**

1. DEMOLISH AND REMOVE ALL ABANDONED UTILITY FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, WITHIN LIMITS OF LAUNCH BOX STRUCTURE AND TO THE LIMITS INDICATED, UNLESS OTHERWISE NOTED.
2. ACTIVE UTILITIES SHALL BE MAINTAINED UNTIL RELOCATION OR CUT OVER, UNLESS OTHERWISE NOTED. COORDINATE DEMOLITION WITH LAUNCH BOX CONSTRUCTION PHASING.
3. PROTECT (E) SEWER.
4. SEE (WD) DRAWINGS FOR ABANDONEMENT AND REMOVAL OF WATER FACILITIES.
5. SEE (AW) DRAWINGS FOR ABANDONMENT AND REMOVAL OF AWSS FACILITIES.
6. PROTECT (E) AT&T FACILITIES.
7. PROTECT (E) JOINT TRENCH.
8. CAP OR PLUG ALL ABANDONED FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, AT JET GROUT OR SLURRY WALL LIMIT.
9. (E) STREET LIGHT POLE. TEMPORARILY REMOVE POLE IF NECESSARY FOR LAUNCH BOX STRUCTURE CONSTRUCTION AND REINSTALL AFTER PORTAL CONSTRUCTION.

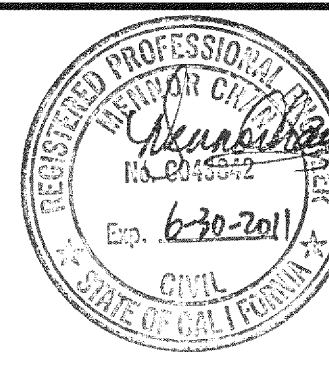


**CONFORMED**

DATE	ISSUED FOR BID	DESCRIPTION	REV. NO.	BY	CHECKED	APPROVED
01/21/2011			0			



DESIGNED: M. DEFORGE  
 DRAWN: E. MATIAS  
 CHECKED: D. ZUURING  
 REVIEWED: M. CHAN  
 RECOMMENDED: M. FOWLER  
 APPROVED: R. EDWARDS  
 DATE: JAN 21 2011



CITY AND COUNTY OF SAN FRANCISCO  
**MUNICIPAL TRANSPORTATION AGENCY**

APPROVED  
 CARTER R. ROHAN  
 EXECUTIVE DIRECTOR/CEO

THIRD STREET LIGHT RAIL PROGRAM  
 PHASE 2 - CENTRAL SUBWAY  
 TUNNELS

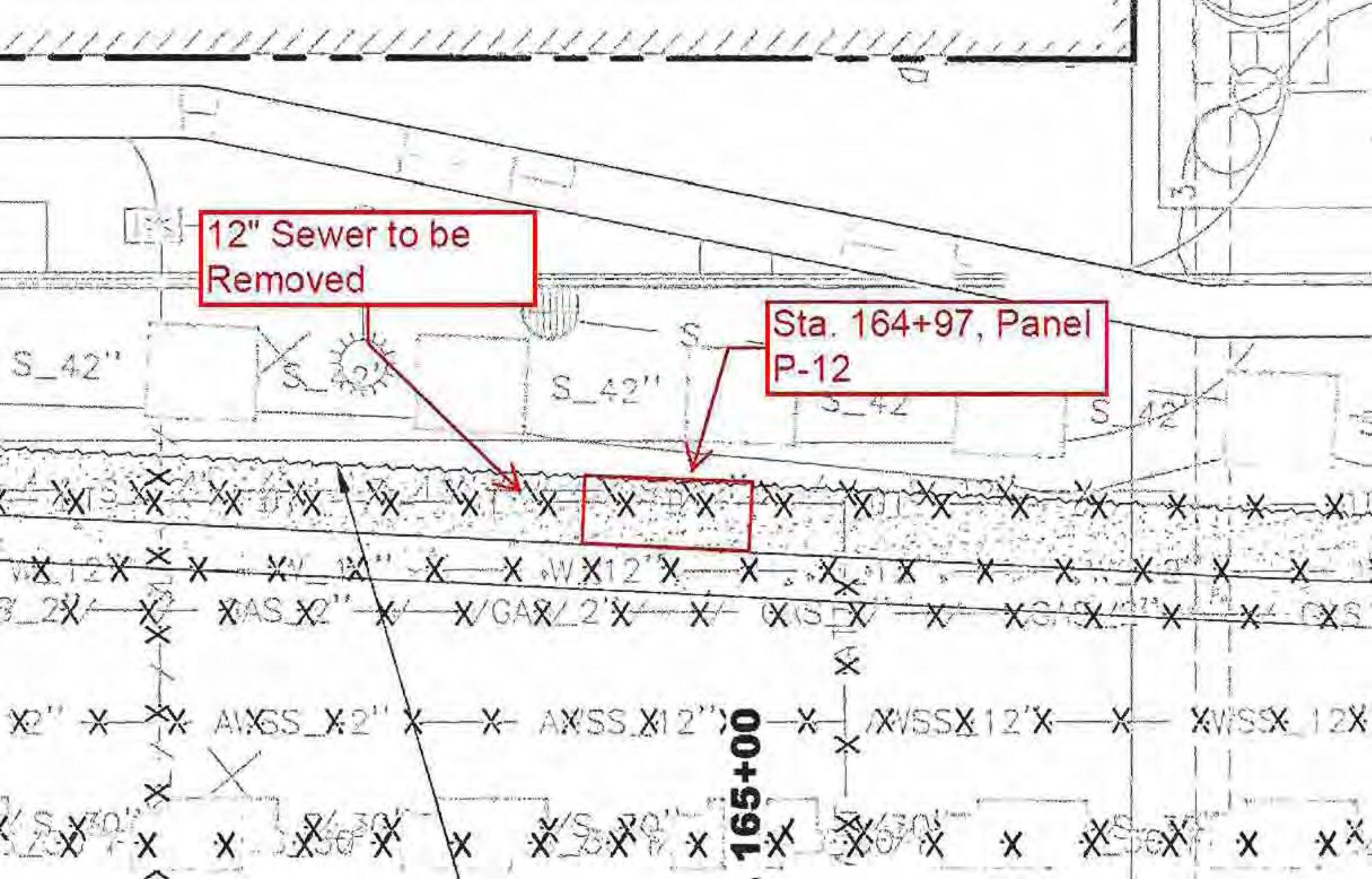
UTILITY DEMOLITION  
 FOURTH STREET PORTAL  
 CTL 163+25 TO 165+50

CONTRACT NO. <b>1252</b>	
SFMTA CONTROL NO. <b>CL-18032</b>	
DRAWING NO. <b>UD-502</b>	REVISION <b>0</b>
SHEET NO. <b>85</b>	



12" Sewer to be Removed

Sta. 164+97, Panel P-12





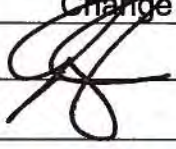
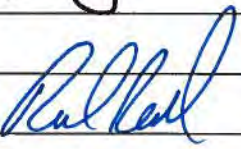







CMB Change No.: **CMB - 142**

Initial Implementing Change Control Procedure No.: **1252 - COR - 79**

GENERAL						
Proposed Change Sponsor: <u>          S. Wilson          </u>		Received by CMB: <u>          11/06/2013          </u> <span style="float: right; font-size: small;">(Date)</span>				
Affected Disciplines: <u>          Building Protection          </u> _____ _____						
Impacts of Change <u>          Compensation Grouting – Old Navy (Remaining Costs)          </u>						
Change Order Request (COR 79) Amount Not To Exceed <b>\$37,380.00</b>						
<u>Contract(s) Directly Affected by this Proposed Change:</u>						
1250	1251	1252	1253	1254	1255	1256
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
(CP01)	(CP02)	(CP03)	(CP04)	(CP05)	(CP06)	(CP07)
CONFIGURATION MANAGEMENT BOARD APPROVALS						
<i>Signatures</i>						
		Agree with the Change	Disagree with the Change	Date		
Program Director:				11-6-13		
Deputy Program Manager:						
PM Project Services:				11/6/13		
PM Project Construction:						
SFMTA O & M Manager:						
SFMTA Safety and Security				6 Nov 13		
SFCTA PMO						
Comments						



## Negotiated Cost Summary

**Scope/Background:**

Various scopes of work related to DSCs discovered during jet grouting at Old Navy.

**Cost Summary:**

	<u>Scope:</u>	<u>Estimated/FAR Amount:</u>	<u>Negotiated Amount:</u>
Part 1:	Potholing, Comp Grout Redesign, Restoration	\$ 69,179.67	\$ 70,460.84
Part 2:	Equipment Standby Costs	\$ 27,372.73	\$ 27,372.73
Part 3:	Mobe, Retrofit, Demobe of Comacchio Drill Rig	\$ 19,128.87	\$ 19,033.11
Part 4:	Drilling Inefficiencies with Small Rig*	\$ 142,505.56	\$ 142,505.56
<i>*Previously negotiated</i>		<b>Total \$ 258,186.83</b>	<b>\$ 259,372.24</b>

**Previously Approved Not to Exceed Amounts:**

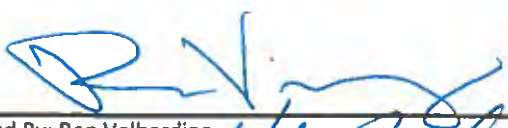
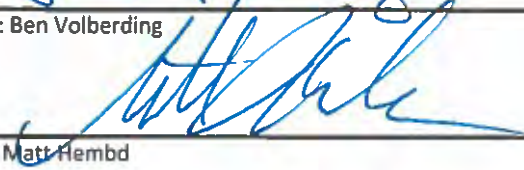
<u>Part 3:</u>	<u>Scope:</u>	<u>Amount:</u>
CMB-116 NTE:	Mobe, demobe, drill at original locations at Pipe Array 3 (FACO #004)	\$ 70,000.00
	Mobe, Retrofit, Demobe of Comacchio Drill Rig (reconciled FARs)	\$ 19,128.87
	Unused amount of FACO #004, drilling cost covered under Part 4:	\$ 50,871.13
<u>Part 4:</u>	<u>Scope:</u>	<u>Amount:</u>
CMB-117 NTE:	Drilling Inefficiencies with Small Rig	\$ 152,000.00
	Negotiated Drilling Inefficiency (see above)	\$ 142,505.56
	Unused amount:	\$ 9,494.44

**Stakeholders:** SFMTA, BIH, CJA-NCC

**Date of initial discovery:** 3/5/2013

**List of attached documents:**

-Proposal/estimate/negotiated cost comparisons (Parts 1, 2 and 3)

  
 Prepared By: Ben Volberding  
  
 Checked By: Matt Hembd

11/06/13  
 Date:  
 11/06/13  
 Date:

COR 079											
Part 1: Potholing, Comp Grout Redesign, Restoration											
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount	
Labor	1	BIH Labor - FAR	433	433	\$ 22,763.46	\$ 23,391.93	\$ (628.47)	Contractor applying ST rates to OT work on tags 279 and 280.	Adjust rates to match signed FARs	ST/OT rates adjusted to match	\$ 23,391.93
	2	SPM Labor - FAR	37	37	\$ 2,160.62	\$ 2,160.62	\$ 0.01				\$ 2,160.62
	3	BIH Labor - Forward Priced	48	48	\$ 2,540.16	\$ 2,540.16	\$ -				\$ 2,540.16
	4	SPM Labor - Forward Priced	4	4	\$ 233.58	\$ 233.58	\$ -				\$ 233.58
Equipment	1	BIH Equipment - FAR	433	433	\$ 8,268.08	\$ 5,882.79	\$ 2,385.29	BIH not applying OT factor to equipment used over 8 hours in a day per Caltrans. BIH including backhoe hammer costs on tags 288 and 289 while not shown on tags.	Correct equipment costs	Equipment rates/durations corrected	\$ 5,882.79
	2	SPM Equipment - FAR	37	37	\$ 1,682.08	\$ 1,700.96	\$ (18.88)	Cost proposal uses previous years Caltrans rates (lower)	Use 2013 rates	Equipment rates corrected	\$ 1,700.96
	3	BIH Equipment - Forward Priced	48	48	\$ 794.88	\$ 645.60	\$ 149.28	Cost proposal uses previous years Caltrans rates (lower)	Use 2013 rates	Equipment rates corrected	\$ 645.60
	4	SPM Equipment - Forward Priced	4	4	\$ 66.24	\$ 53.80	\$ 12.44	Cost proposal uses previous years Caltrans rates (lower)	Use 2013 rates	Equipment rates corrected	\$ 53.80
Materials	1	PVC/Other materials			\$ 8,072.99	\$ 8,086.68	\$ (13.69)				\$ 8,086.68
	2										
Subs	1	PSI/Off-Hauling			\$ 14,576.12	\$ 12,238.62	\$ 2,337.50	Total PSI duration from FARs less than included in proposal. Hauling not on FAR.	Justify PSI/hauling charges	Agreed to remove PSI costs not shown on tags and include 2ea truck loads of hauling costs.	\$ 12,238.62
	2	ARUP Redesign			\$ 3,276.00	\$ 3,276.00	\$ -	BIH provided 2nd ARUP invoice after submitting original COR package.	SFMTA/BIH needs to validate ARUP invoices	BIH to provide SFMTA with detailed ledger report to justify ARUP invoice	\$ 4,476.00
SPM Markup LM&E (15%)				\$ 621.38	\$ 622.34	\$ (0.97)					\$ 622.34
SPM Bond/Insurance (2.14%)				\$ 101.95	\$ 102.11	\$ (0.16)					\$ 102.11
<b>SPM Subtotal</b>				<b>\$ 4,865.85</b>	<b>\$ 4,873.40</b>	<b>\$ (7.56)</b>					<b>\$ 4,873.40</b>
<b>Other Subs (PSI/Off-Haul and ARUP)</b>				<b>\$ 17,852.12</b>	<b>\$ 15,514.62</b>	<b>\$ 2,337.50</b>					<b>\$ 16,714.62</b>
Prime Markup on Subs (5%)				\$ 1,135.90	\$ 1,019.40	\$ 116.50					\$ 1,079.40
BIH Markup LM&E (15%)				\$ 6,365.94	\$ 6,082.07	\$ 283.86					\$ 6,082.07
Prime Bond/Insurance (1.68%)				\$ 1,220.68	\$ 1,143.02	\$ 77.66					\$ 1,164.18
<b>Total</b>				<b>\$ 73,880.05</b>	<b>\$ 69,179.67</b>	<b>\$ 4,700.37</b>					<b>RE Recommended Negotiated Amount \$ 70,460.84</b>

COR 079											
Part 2: Equipment Standby Costs											
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount	
Labor	1	Drilling Delay	0	0	\$ -	\$ -	\$ -			\$ -	
	2	Grouting Delay	0	0	\$ -	\$ -	\$ -			\$ -	
	3										
	4										
	5										
Equipment	1	Drilling Delay	15 working days	15 working days	\$ 13,367.81	\$ 9,665.81	\$ (3,702.00)	Cost proposal uses active rate for CAT 246 Skidsteer (\$30.85/hr)	Compensate at approved standby rate (\$3.70/hr)	BIH/CJA-NCC agreed with SFMTA comments. Used rates previously agreed to by the SFMTA.	\$ 9,665.81
	2	Grouting Delay	15 working days	15 working days	\$ 15,403.54	\$ 12,513.24	\$ (2,890.30)	CJA-NCC proposal contains equipment rates not approved by SFMTA	Modify equipment rates to match previously approved rates	BIH/CJA-NCC agreed with SFMTA comments. Used rates previously agreed to by the SFMTA.	\$ 12,513.24
	3										
	4										
	5										
Materials	1	Drilling Delay			\$ -	\$ -	\$ -			\$ -	
	2	Grouting Delay			\$ -	\$ -	\$ -			\$ -	
	3										
	4										
	5										
<b>Markup LM&amp;E (15%)</b>				\$ 4,315.70	\$ 3,326.86	\$ (988.85)				<b>Markup LM&amp;E (15%)</b>	\$ 3,326.86
<b>Sub. Bond/Insurance (0.52%)</b>				\$ 172.05	\$ 132.63	\$ (39.42)				<b>Sub. Bond/Insurance (0.52%)</b>	\$ 132.63
<b>CJA-NCC Subtotal</b>				\$ 33,259.11	\$ 25,638.54	\$ (7,620.57)				<b>CJA-NCC Subtotal</b>	\$ 25,638.54
<b>Prime Markup (5%)</b>				\$ 1,662.96	\$ 1,281.93	\$ (381.03)				<b>Prime Markup (5%)</b>	\$ 1,281.93
<b>Prime Bond/Insurance (1.68%)</b>				\$ 586.69	\$ 452.26	\$ (134.43)				<b>Prime Bond/Insurance (1.68%)</b>	\$ 452.26
<b>Total</b>				\$ 35,508.75	\$ 27,372.73	\$ (8,136.02)				<b>RE Recommended Negotiated Amount</b>	\$ 27,372.73



COR 079											
Part 3: Mobe, Retrofit, Demobe of Comacchio Drill Rig											
	No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount
Labor	1	FAR Labor (all tags)	188	188	\$ 13,537.14	\$ 13,536.88	\$ (0.26)				\$ 13,536.88
	2										
	3										
	4										
	5										
Equipment	1				\$ -	\$ -	\$ -				\$ -
	2										
	3										
	4										
	5										
Materials	1	Trucking Invoices			\$ 2,546.50	\$ -	\$ (2,546.50)	Invoices provided for 3ea truck loads. Sub proposal contains costs for 5ea. Appear to be double dipping on two invoices. SFMTA only to pay for 602 invoices (not Klemm). To be compensated under sub category.	Sub needs to justify trucking charges included in proposal. Only include 602 invoices.	Agreed to include trucking under materials as CJA-NCC does not have sub agreement in place with trucking outfit. CJA-NCC provided invoices for 602 demobe.	\$ 1,884.90
	2	Subsistence			\$ 3,822.64	\$ -	\$ (3,822.64)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates	Subsistence costs and 'costs above straight time' removed	\$ -
	3										
	4										
	5										
Subs	1	Trucking Invoices			\$ -	\$ 2,149.40	\$ 2,149.40	Invoices provided for 3ea truck loads. Sub proposal contains costs for 5ea. Appear to be double dipping on two invoices. SFMTA only to pay for 602 invoices (not Klemm). To be compensated under sub category.	Sub needs to justify trucking charges included in proposal. Only include 602 invoices.	Agreed to include trucking under materials as CJA-NCC does not have sub agreement in place with trucking outfit.	\$ -
	2										
Markup LM&E (15%)					\$ 2,985.94	\$ 2,030.53	\$ (955.41)			Markup LM&E (15%)	\$ 2,313.27
Markup 2nd Tier Subs (5%)					\$ -	\$ 107.47	\$ 107.47			Markup 2nd Tier Subs (5%)	\$ -
Sub. Bond/Insurance (0.52%)					\$ 119.04	\$ 92.69	\$ (26.35)			Sub. Bond/Insurance (0.52%)	\$ 92.22
<b>CJA-NCC Subtotal</b>					<b>\$ 23,011.26</b>	<b>\$ 17,916.97</b>	<b>\$ (5,094.29)</b>			<b>CJA-NCC Subtotal</b>	<b>\$ 17,827.27</b>
Prime Markup (5%)					\$ 1,150.56	\$ 895.85	\$ (254.71)			Prime Markup (5%)	\$ 891.36
Prime Bond/Insurance (1.68%)					\$ 405.92	\$ 316.06	\$ (89.86)			Prime Bond/Insurance (1.68%)	\$ 314.47
<b>Total</b>					<b>\$ 24,567.74</b>	<b>\$ 19,128.87</b>	<b>\$ (5,438.87)</b>			<b>RE Recommended Negotiated Amount</b>	<b>\$ 19,033.11</b>

## Estimate Summary

**Scope/Background:**

Various scopes of work related to DSCs discovered during jet grouting at Old Navy.

**Cost Summary:**

Part 1:	Potholing, Comp Grout Redesign, Restoration (FAR reconcilliation)	\$	69,179.67
Part 2:	Equipment Standby Costs	\$	27,372.73
Part 3:	Mobe, Retrofit, Demobe of Comacchio Drill Rig (FAR reconcilliation)	\$	19,128.87
Part 4:	<i>Drilling Inefficiencies with Small Rig (previously negotiated)</i>	\$	<i>142,505.56</i>
<b>Total</b>		\$	<b>258,186.83</b>

**Stakeholders:** SFMTA, BIH, CJA-NCC


**Date of initial discovery:** 3/5/2013

**List of attached documents:**

- Proposal/estimate comparison
- Detailed labor/equipment/materials estimate

  
\_\_\_\_\_  
Estimate Prepared By: Ben Volberding

11/06/13  
\_\_\_\_\_  
Date:

  
\_\_\_\_\_  
Estimate Checked By: Matt Hembd

11/05/13  
\_\_\_\_\_  
Date:

COR 079										
Part 1: Potholing, Comp Grout Redesign, Restoration										
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position		
Labor	1	BIH Labor - FAR	433.00	433.00	\$ 22,763.46	\$ 23,391.93	\$ (628.47)	Contractor applying ST rates to OT work on tags 279 and 280. Alex Vazquez doesn't show in CPR (his cost incld in estimated labor, tag 242). BIH CPR all flagged.	Adjust rates and rectify CPR to include Alex Vazquez and remove flags.	
	2	SPM Labor - FAR	37.00	37.00	\$ 2,160.62	\$ 2,160.62	\$ 0.01	None of SPM's craft have hours on CPR for dates indicated.	Rectify CPR	
	3	BIH Labor - Forward Priced	48.00	48.00	\$ 2,540.16	\$ 2,540.16	\$ -			
	4	SPM Labor - Forward Priced	4.00	4.00	\$ 233.58	\$ 233.58	\$ -			
Equipment	1	BIH Equipment - FAR			\$ 8,268.08	\$ 5,882.79	\$ 2,385.29	BIH not applying OT factor to equipment used over 8 hours in a day per Caltrans. BIH including backhoe hammer costs on tags 288 and 289 while not shown on tags.	Correct equipment costs	
	2	SPM Equipment - FAR			\$ 1,682.08	\$ 1,700.96	\$ (18.88)	Cost proposal uses previous years Caltrans rates (lower)	Use 2013 rates	
	3	BIH Equipment - Forward Priced			\$ 794.88	\$ 645.60	\$ 149.28	Cost proposal uses previous years Caltrans rates (lower)	Use 2013 rates	
	4	SPM Equipment - Forward Priced			\$ 66.24	\$ 53.80	\$ 12.44	Cost proposal uses previous years Caltrans rates (lower)	Use 2013 rates	
Materials	1	PVC/Other materials			\$ 8,072.99	\$ 8,086.68	\$ (13.69)	BIH using 8.5% tax on PVC materials when invoice shows 8.75%.	Use tax rates shown. SFMTA/BIH need to confirm various quantities.	
	2									
Subs	1	PSI/Off-Hauling			\$ 14,576.12	\$ 12,238.62	\$ 2,337.50	Total PSI duration from FARs less than included in proposal. Hauling not on FAR.	Justify PSI/hauling charges	
	2	ARUP Redesign			\$ 3,276.00	\$ 3,276.00	\$ -	BIH provided 2nd ARUP invoice after submitting orinigal COR package.	SFMTA/BIH needs to validate ARUP invoices	
SPM Markup LM&E (15%)				\$ 621.38	\$ 622.34	\$ (0.97)				
SPM Bond/Insurance (2.14%)				\$ 101.95	\$ 102.11	\$ (0.16)				
<b>SPM Subtotal</b>				<b>\$ 4,865.85</b>	<b>\$ 4,873.40</b>	<b>\$ (7.56)</b>				
<b>Other Subs (PSI/Off-Haul and ARUP)</b>				<b>\$ 17,852.12</b>	<b>\$ 15,514.62</b>	<b>\$ 2,337.50</b>				
Prime Markup on Subs (5%)				\$ 1,135.90	\$ 1,019.40	\$ 116.50				
BIH Markup LM&E (15%)				\$ 6,365.94	\$ 6,082.07	\$ 283.86				
Prime Bond/Insurance (1.68%)				\$ 1,220.68	\$ 1,143.02	\$ 77.66				
<b>Total</b>				<b>\$ 73,880.05</b>	<b>\$ 69,179.67</b>	<b>\$ 4,700.37</b>				



**COR 079**  
**Part 1: Potholing, Comp Grout Redesign, Restoration**

FAR Date	FAR	Material	Qty.	Unit	Unit Price	Extension	Sales Tax (%)	Subtotal
VARIES	VARIES	PVC pipes (10")	355	LF	\$ 13.94	\$ 4,948.70	8.75%	\$ 5,381.71
VARIES	VARIES	PVC couplers (10")	7	EA	\$ 75.60	\$ 529.20	8.75%	\$ 575.51
<b>PVC MATERIALS TOTAL</b>								<b>\$ 5,957.22</b>

FAR Date	FAR	Material	Qty.	Unit	Unit Price	Extension	Sales Tax (%)	Subtotal
5/7/2013	243	CDF Backfill	3	CY	\$ 100.00	\$ 300.00	8.50%	\$ 325.50
VARIES	VARIES	Plywood (28 sheets at 4x8)	896	SF	\$ 1.70	\$ 1,518.72	8.50%	\$ 1,647.81
VARIES	VARIES	2x4s	28	EA	\$ 2.64	\$ 73.92	8.50%	\$ 80.20
VARIES	VARIES	Asphalt Overlay	1	TON	\$ 70.00	\$ 70.00	8.50%	\$ 75.95
<b>OTHER MATERIALS TOTAL</b>								<b>\$ 2,129.46</b>

Work Date	Invoice No.	Subcontractor	Qty.	Unit	Unit Price	Extension	Subtotal
4/10/2013	6126	Presidio Systems, Inc. (vac truck)	8	HR	\$ 275.00	\$ 2,200.00	\$ 2,200.00
4/11/2013	6126	Presidio Systems, Inc. (vac truck)	8	HR	\$ 275.00	\$ 2,200.00	\$ 2,200.00
5/1/2013	6159	Presidio Systems, Inc. (vac truck)	8	HR	\$ 275.00	\$ 2,200.00	\$ 2,200.00
5/2/2013	6159	Presidio Systems, Inc. (vac truck)	8	HR	\$ 275.00	\$ 2,200.00	\$ 2,200.00
5/3/2013	6159	Presidio Systems, Inc. (vac truck)	6.5	HR	\$ 275.00	\$ 1,787.50	\$ 1,787.50
5/4/2013	6160	Presidio Systems, Inc. (vac truck)	4	HR	\$ 275.00	\$ 1,100.00	\$ 1,100.00
<b>PRESIDIO TOTAL</b>							<b>\$ 11,687.50</b>

Subcontractor	Qty.	Unit	Unit Price	Extension	Subtotal
Hauling - (1 of 2 loads)	1	EA	\$ 275.56	\$ 275.56	\$ 275.56
Hauling - (2 of 2 loads)	1	EA	\$ 275.56	\$ 275.56	\$ 275.56
<b>HAULING TOTAL</b>					<b>\$ 551.12</b>

Invoice #	Subcontractor	Qty.	Unit	Unit Price	Extension	Subtotal
Multiple	Comp grout redesign (ARUP)	1	EA	\$ 4,476.00	\$ 4,476.00	\$ 4,476.00
<b>ARUP TOTAL</b>						<b>\$ 4,476.00</b>



COR 079								
Part 2: Equipment Standby Costs								
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position
Labor	1	Drilling Delay	0	0	\$ -	\$ -	\$ -	
	2	Grouting Delay	0	0	\$ -	\$ -	\$ -	
	3							
	4							
	5							
Equipment	1	Drilling Delay	15 work days	\$ 13,367.81	\$ 9,665.81	\$ (3,702.00)	Cost proposal uses active rate for CAT 246 Skidsteer (\$30.85/hr)	Compensate at approved SB rate (\$3.70/hr)
	2	Grouting Delay	15 work days	\$ 15,403.54	\$ 12,513.24	\$ (2,890.30)	CJA-NCC proposal contains equipment rates not approved by SFMTA	Modify equipment rates to match previously approved rates
	3							
	4							
	5							
Materials	1	Drilling Delay		\$ -	\$ -	\$ -		
	2	Grouting Delay		\$ -	\$ -	\$ -		
	3							
	4							
	5							
Markup LM&E (15%)				\$ 4,315.70	\$ 3,326.86	\$ (988.85)		
Sub. Bond/Insurance (0.52%)				\$ 172.05	\$ 132.63	\$ (39.42)		
<b>CJA-NCC Subtotal</b>				<b>\$ 33,259.11</b>	<b>\$ 25,638.54</b>	<b>\$ (7,620.57)</b>		
Prime Markup (5%)				\$ 1,662.96	\$ 1,281.93	\$ (381.03)		
Prime Bond/Insurance (1.68%)				\$ 586.69	\$ 452.26	\$ (134.43)		
<b>Total</b>				<b>\$ 35,508.75</b>	<b>\$ 27,372.73</b>	<b>\$ (8,136.02)</b>		

**COR 079**

**Part 2: Equipment Standby Costs**

Activity No.	Activity	Hourly rates:						Labor totals	Drill Delaying Equipment Rate \$80.55	Grouting Delay Equipment Rate \$104.28					Equipment Totals
1	Drilling Delay						\$ -	120							\$ 9,665.81
2	Grouting Delay						\$ -		120						\$ 12,513.24
3															\$ -
<b>Total</b>							\$ -								\$ 22,179.05

Labor	\$ -
Material	\$ -
Equipment	\$ 22,179.05
2nd Tier Sub	\$ -
Markup on 2nd Tier Sub - 5%	\$ -
1st Tier Sub OH&P - 15%	\$ 3,326.86
1st Tier Sub Bond/Insurance - 0.52%	\$ 132.63
<b>CJA-NCC Subtotal</b>	<b>\$ 25,638.54</b>
Prime - Markup - 5%	\$ 1,281.93
Prime - Bond/Insurance - 1.68%	\$ 452.26
<b>Total Amount</b>	<b>\$ 27,372.73</b>

**Notes:**  
-Per RON signed by both SFMTA and BIH: Drilling delay 04/2/2013 to 04/22/2013 (15 working days/120 hours) and Grouting delay 04/10/2013 to 04/30/2013 (15 working days/120 hours)

# COR 079

## Part 2: Equipment Standby Costs

### Drilling Delay

Equip Code	Equip Description	Rate	Standby Factor	Standby Rate	Notes
3033	Klem 803-2	\$ 129.64	0.40	\$ 51.86	
4048	Sullair Comp	\$ 101.60	0.14	\$ 14.22	
6081	Obermann V110-1-D	\$ 40.19	0.36	\$ 14.47	
21134-BM	246 CAT Skidsteer	\$ 30.85	0.12	\$ 3.70	
<b>Total Drilling Delay Equipment Rate:</b>				<b>\$ 80.55</b>	

### Grouting Delay

Equip Code	Equip Description	Rate	Standby Factor	Standby Rate	Notes
21134-BT	CD150M Diesel Pump	\$ 32.39	0.34	\$ 11.01	
21134-BU	Generator	\$ 55.81	0.10	\$ 5.58	
21134-BV	PALM/Hose Reeler	\$ 6.12	1.00	\$ 6.12	
21134-BW	PALM/Hose Reeler	\$ 6.12	1.00	\$ 6.12	
21134-BX	CAT Pump w/ Hose Reeler	\$ 13.05	1.00	\$ 13.05	
CGP0001	Sinnus Container	\$ 56.93	0.54	\$ 30.74	
CM250001	Palm Electric Grout	\$ 23.25	1.00	\$ 8.60	Caltrans Tag M1, per CJA-NCC
CS309005	Supersaker Weighing Silo	\$ 18.31	1.00	\$ 6.77	Caltrans Tag 309005, per CJA-NCC
ELP004	Electric Panel	\$ 0.63	0.47	\$ 0.30	
ET12201	Electric Panel	\$ 0.24	0.47	\$ 0.11	
FLM25005	Flowmeter	\$ 0.89	0.45	\$ 0.40	
HAT30401	Agitator Tank	\$ 2.76	0.44	\$ 1.21	
HAT30402	Agitator Tank	\$ 2.76	0.44	\$ 1.21	
OGP-01	Grout Mixer	\$ 19.56	0.43	\$ 8.41	
SPT0002	Trailer	\$ 12.19	0.38	\$ 4.63	
<b>Total Grouting Delay Equipment Rate:</b>				<b>\$ 104.28</b>	

COR 079									
Part 3: Mobe, Retrofit, Demobe of Comacchio Drill Rig									
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	
Labor	1	FAR Labor (all tags)	188.00	188.00	\$ 13,537.14	\$ 13,536.88	\$ (0.26)		CPR must be officially submitted/accepted prior to compensation. Bill Earhart need to be added.
	2								
	3								
	4								
	5								
Equipment	1			\$ -	\$ -	\$ -			
	2								
	3								
	4								
	5								
Materials	1	Trucking Invoices			\$ 2,546.50	\$ -	\$ (2,546.50)	Invoices provided for 3ea truck loads. Sub proposal contains costs for 5ea. Appear to be double dipping on two invoices. SFMTA only to pay for 602 invoices (not Klemm). To be compensated under sub category.	Sub needs to justify trucking charges included in proposal. Only include 602 invoices.
	2	Subsistence			\$ 3,822.64	\$ -	\$ (3,822.64)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates
	3								
	4								
	5								
Subs	1	Trucking Invoices			\$ -	\$ 2,149.40	\$ 2,149.40	Invoices provided for 3ea truck loads. Sub proposal contains costs for 5ea. Appear to be double dipping on two invoices. SFMTA only to pay for 602 invoices (not Klemm). To be compensated under sub category.	Sub needs to justify trucking charges included in proposal. Only include 602 invoices.
	2								
		Markup LM&E (15%)			\$ 2,985.94	\$ 2,030.53	\$ (955.41)		
		Markup 2nd Tier Subs (5%)			\$ -	\$ 107.47	\$ 107.47		
		Sub. Bond/Insurance (0.52%)			\$ 119.04	\$ 92.69	\$ (26.35)		
		<b>CIA-NCC Subtotal</b>			<b>\$ 23,011.26</b>	<b>\$ 17,916.97</b>	<b>\$ (5,094.29)</b>		
		Prime Markup (5%)			\$ 1,150.56	\$ 895.85	\$ (254.71)		
		Prime Bond/Insurance (1.68%)			\$ 405.92	\$ 316.06	\$ (89.86)		
		<b>Total</b>			<b>\$ 24,567.74</b>	<b>\$ 19,128.87</b>	<b>\$ (5,438.87)</b>		



**COR 079**

**Part 3: Mobe, Retrofit, Demobe of Comacchio Drill Rig**

FAR No.	Date	Activity	\$70.59	\$70.59	\$70.59	\$74.33	\$92.20	\$92.20	\$92.20	\$97.81	Labor totals	Equipment Totals
			Scott Brandt OE G3	Michael Dunne OE G3	William Earhart OE G3	Jarrod Fritz OE G1	Scott Brandt OE G3	Michael Dunne OE G3	William Earhart OE G3	Jarrod Fritz OE G1		
			ST x1.0				OT x1.5					
189	5/6/2013	602 drill delivered. Began working on setup. Fabing and training.	8.00	8.00	8.00	8.00	2.00	2.00			\$ 2,657.60	\$ -
191	5/7/2013	Continue prepping Comochio 602 for drilling	8.00			8.00					\$ 1,159.36	\$ -
194	5/8/2013	Tooling and setup and training ongoing. Follow up at machine shop with drive tooling set up.	8.00			8.00					\$ 1,159.36	\$ -
196	5/9/2013	Work on 602 drill mod and set up.	8.00	8.00	8.00	8.00					\$ 2,288.80	\$ -
199	5/10/2013	Continue setup for limited access drill. Come in early to move moyno pump set up - run lines etc. Machine shop still building drive HCAD for 602.	8.00	8.00	8.00						\$ 1,694.16	\$ -
200	5/13/2013	Old Navy Delay Due to 602 Comochio Set Up to accommodate limited access	8.00			8.00					\$ 1,159.36	\$ -
202	5/14/2013	Old Navy Delay Due to 602 Comochio Set Up to accommodate limited access	8.00	8.00		8.00					\$ 1,724.08	\$ -
204	5/15/2013	Comacchio 602 limited access drill setup	8.00	8.00	8.00						\$ 1,694.16	\$ -
<b>Total</b>										\$ <b>13,536.88</b>	\$ <b>-</b>	

Labor	\$	13,536.88
Material	\$	-
Equipment	\$	-
2nd Tier Sub	\$	2,149.40
Markup on 2nd Tier Sub - 5%	\$	107.47
1st Tier Sub OH&P - 15%	\$	2,030.53
1st Tier Sub Bond/Insurance - 0.52%	\$	92.69
<b>CJA-NCC Subtotal</b>	\$	<b>17,916.97</b>
Prime - Markup - 5%	\$	895.85
Prime - Bond/Insurance - 1.68%	\$	316.06
<b>Total Amount</b>	\$	<b>19,128.87</b>

**Notes:**  
For FAR work, Engineer's Estimate (EE) uses labor and equipment hours as documented by the SFTMA. EE also uses approved labor and equipment rates per General Provision Article 6.04.

## COR 079

### Part 3: Mobe, Retrofit, Demobe of Comacchio Drill Rig

FAR Date	FAR	Material	Qty.	Unit	Unit Price	Extension	Sales Tax (%)	Subtotal
							<b>TOTAL</b>	\$ -

Date	Invoice No.	2ND Tier Subcontractors	Qty.	Unit	Unit Price	Extension	Sales Tax (%)	Subtotal
5/15/2013	20130719	DePaoli Equipment Inc. (trucking) [Mobe, submitted]	1	EA	\$ 677.60	\$ 677.60	0.00%	\$ 677.60
5/6/2013	20130667	DePaoli Equipment Inc. (trucking) [Mobe, submitted]	1	EA	\$ 397.10	\$ 397.10	0.00%	\$ 397.10
		DePaoli Equipment Inc. (trucking) [Demobe plug, not submitted]	1	EA	\$ 677.60	\$ 677.60	0.00%	\$ 677.60
		DePaoli Equipment Inc. (trucking) [Demobe plug, not submitted]	1	EA	\$ 397.10	\$ 397.10	0.00%	\$ 397.10
							<b>TOTAL</b>	\$ 2,149.40

## DSC FINDING OF FACT

DIFFERING SITE CONDITIONS – REFERENCE APPROPRIATE SPECIFICATIONS IN CONTRACT GENERAL PROVISIONS AND SPECIAL PROVISIONS

1. REPORTED DATE OF OCCURRENCE 3/5/13
2. DATE OF CONTRACTOR'S WRITTEN NOTICE BIHJV Letter No. 098 Dated 3/7/13
3. TYPE OF WORK CONTRACTOR WAS PERFORMING Excavation for compensation grouting
4. NATURE OF OBSTRUCTION  
Abandoned clay duct banks, steel conduits and 12" PG&E gas main. Abandoned utilities are in conflict with drilling operations for grout pipe.
5. LOCATION OF OBSTRUCTION ~ Sta. 138+00 to 139+00. Utilities located in space between 10' to 16' west of east curbline at 799 Market (Ross store, Stockton frontage)
6. METHOD USED TO OVERCOME OBSTRUCTION  
PG&E was contacted when DSCs were uncovered. Utilities were drilled and windowed. When utilities were verified to be abandoned, Contractor removed obstructions. Contractor also demo portions of the gas main which was in conflict with the grouting pipes. Contractor did not demo the entire gas main which would have resulted in a wider trench line.
7. SIGNIFICANT IMPACT ON CONSTRUCTION PROGRESS, IF ANY.(SUPPLIED BY THE CONTRACTOR)  
COST Sub-total for drilling impact due to small rig = \$224,720.48 + \$55,000 additional cost + Potential Standby Costs as stated in COR #79 Rev 3 dated 4/24/13  
TIME At present time, work does not impact the critical path however an impact may occur depending on length of standby time by CJA-NCC.
8. CONCLUSION, WHETHER-OR-NOT OBSTRUCTION CAN BE CLASSIFIED AS A DIFFERING SITE CONDITION (BASED ON CONTRACT DOCUMENTS).  
Abandoned ductbanks and steel conduits: The buried obstruction constitutes a differing and unforeseen site conditions as it is not shown in the Contract Drawings. Utility demo drawings do not exist for this location.  
Abandoned gas main: The existing gas main was shown on UE-127 but was omitted in UE-128.
9. ATTACHMENTS:
 

SPECIFICATION	General Provision Article 3.04
DRAWINGS	BP-124, UE-127 and UE-128
INSPECTION RPT	
OTHER	Photos attached

Prepared  
by:



Sarah Wilson, Resident Engineer  
SFMTA Representative

4/24/13  
Date



SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

## EVALUATION OF MERIT

### COR 079

**Recommendation:** Accept justification of Merit for COR 079 – (Comp Grout – Old Navy) - DSC / Design Modifications. There is no time extension recommended for this work.

**Facts:** The Contractor performed potholing activities in advance of compensation grout hole drilling at the Old Navy location (between Market St. and Stevenson St. on 4<sup>th</sup> Street) and encountered numerous buried obstructions. The obstructions were first encountered on March 5<sup>th</sup>, 2013.

After further field investigation with PG&E and additional potholing efforts, it was determined that there was not sufficient room between existing utilities (known and unknown) to drill the compensation grout holes as designed. The Contractor was able to remove many of these obstructions in an effort to identify a clear window of space in which to locate the proximal points of the compensation grout pipe array. However, one of the obstructions consisted of what was originally believed to be a live 12" waterline which would have caused the proximal points to shift to the east to avoid the live utility. On 4/4/13, it was discovered that this utility was not actually the 12" live waterline and on 4/5/13, PG&E confirmed that the utility was actually a 12" abandoned gas line.

The 12" abandoned gas line needs to be removed to allow drilling of the compensation grout holes at the originally foreseen proximal points in accordance with the Compensation Grout Design. However, further investigation showed that even with the removal of the 12" gas line, there was still insufficient room between utilities to install the grout tubes with the current equipment. The Contractor has been directed to demobilize the current equipment and mobilize a small drill rig which would allow the proximal points to be installed at the designed hole inclinations while passing beneath the PG&E electrical duct bank.

**Justification:** The buried obstructions constitute a differing and unforeseen site conditions as they were not shown or accurately depicted in the Contract Drawings. The following numerous issues that lead to the differing site condition are described herein:

1. There is not sufficient clearance between the existing PG&E lines per the original contract design to drill the compensation grout holes as designed.
2. Numerous unknown buried obstructions were encountered including, but not limited to tile duct banks, concrete of unknown contents, and steel pipes.
3. An abandoned 12" PG&E gas line was found to be approximately 16 feet from face of curb, approximately 4 feet below grade and running the entire length of the trench. The Contract Documents do indicate the presence of a 12" gas line at this location (Contract dwg. BP-124 Rev. 0 & Reference dwg. UE-127). See Field

**SFMTA Contract No. 1252**

**Contractor:** Barnard Impregilo Healy JV (BIH)

- Sketches 045 through 047. However, the Contract Documents, specifically the Utility Demolition and Utility Composite drawings, do not show whether the 12" gas line is live or needs to be removed.
4. The PGE electrical duct bank was deeper and further east than originally anticipated.
  5. The waterline shown on the drawings was further east than shown on the Contract drawings. See Field Sketches 045 through 046.
  6. A sub-sidewalk basement within the Ross Dress for Less building was discovered to have an unknown roof load capacity. This resulted in the need to bring in a smaller drill rig that could install the compensation grout tubes from the roadway and avoid installation on top of the basement.

As a result of mitigation efforts for the DSCs the following additional costs will be incurred:

Standby costs:

- The Contractor claims the standby costs for the Pipe installation crew began accruing on March 14, 2013 and will continue to accrue until the array of grout holes are available to be drilled. Standby costs for the Pre-conditioning crew will begin accruing upon completion of the Wholefoods /AT&T Pre-conditioning work. At this time, standby costs for the Preconditioning crew are anticipated to start accruing on 4/8/2013. At this time, the RE disagrees with the standby period for these two operations and is working with the Contractor to resolve the differences.

Additional Costs:

- Additional potholing/investigative efforts
- Further engineering to the compensation grout design
- Excavation of a larger access trench
- Removal & disposal of abandoned/un-used DSC utilities
- Increased street restoration
- Demobilization of the existing Klemm drill rig being used for installation of the compensation grout tubes at the "Old Navy" site.
- Mobilization for the smaller drill rig and the additional cost associated with using the small drill rig.

Actual costs related to this additional work have yet to be determined.

**Change Type** – (2) Unforeseen Condition

SFMTA Contract No. 1252

Contractor:

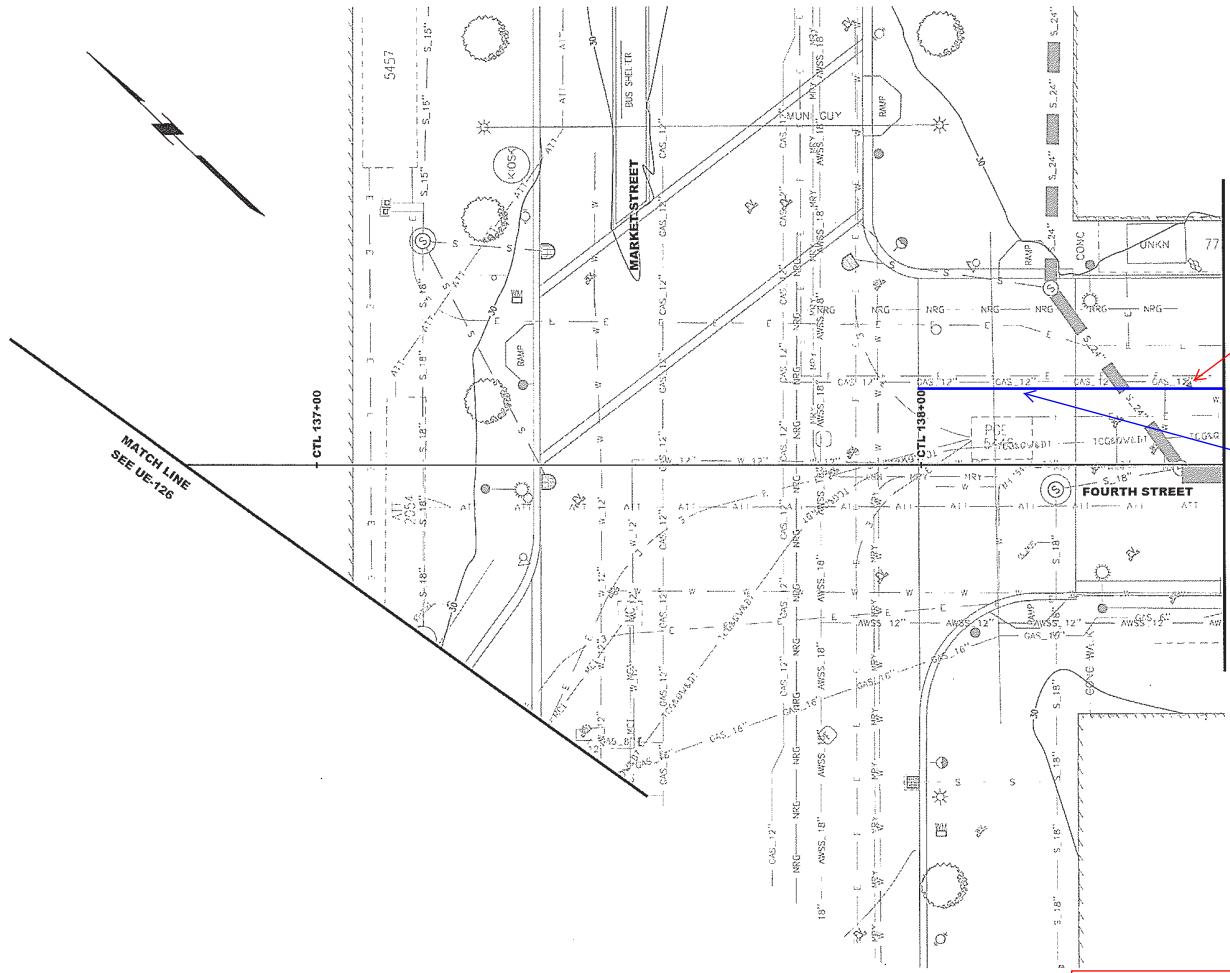
Barnard Impregilo Healy JV (BIH)

By:  \_\_\_\_\_ 4/24/13  
Sarah Wilson Date  
Resident Engineer

 \_\_\_\_\_ 4-24-13  
Configuration Management Board Date  
Approval

RE/cm to provide notice to PG&E of these Form B costs.

PLACING PG&E ON NOTICE

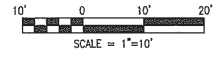


**NOTE:**  
 EXISTING UTILITY COMPOSITE DRAWINGS WERE COMPILED FROM UTILITY RECORD PLANS OBTAINED FROM UTILITY AGENCIES AND ADJUSTED TO FIELD SURVEY SURFACE EVIDENCE AS PROVIDED IN DFW TOPOGRAPHIC SURVEY CAD FILE: 2007R3.DWG. CONTRACTOR SHALL SATISFY HIMSELF/HERSELF AS TO THE CORRECTNESS OF EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY AND OBTAIN WRITTEN APPROVAL FROM ENGINEER OF ANY DISCREPANCIES, REVISIONS, AND ADDITIONAL WORK THAT IS REQUIRED AS A RESULT OF SUCH FIELD INVESTIGATION PRIOR TO BEGINNING ANY WORK.

Location of 12" gas line. Shown on drawings.

Location of 12" water line. Not shown on drawings.

Field sketch No. 1252 - 045  
 COR 079



DRAWING IN PROGRESS / SUBJECT TO CHANGE / 11"X17" = HALF SIZE

DATE	DESCRIPTION	REV	BY	CHECKED	APPROVED

<b>SFMTA</b>	DESIGNED	
	DRAWN	
	CHECKED	
	INTEGRATED	
	RECOMMENDED	
APPROVED		
DATE		



CITY AND COUNTY OF SAN FRANCISCO  
**MUNICIPAL TRANSPORTATION AGENCY**

APPROVED

EXECUTIVE DIRECTOR/CEO

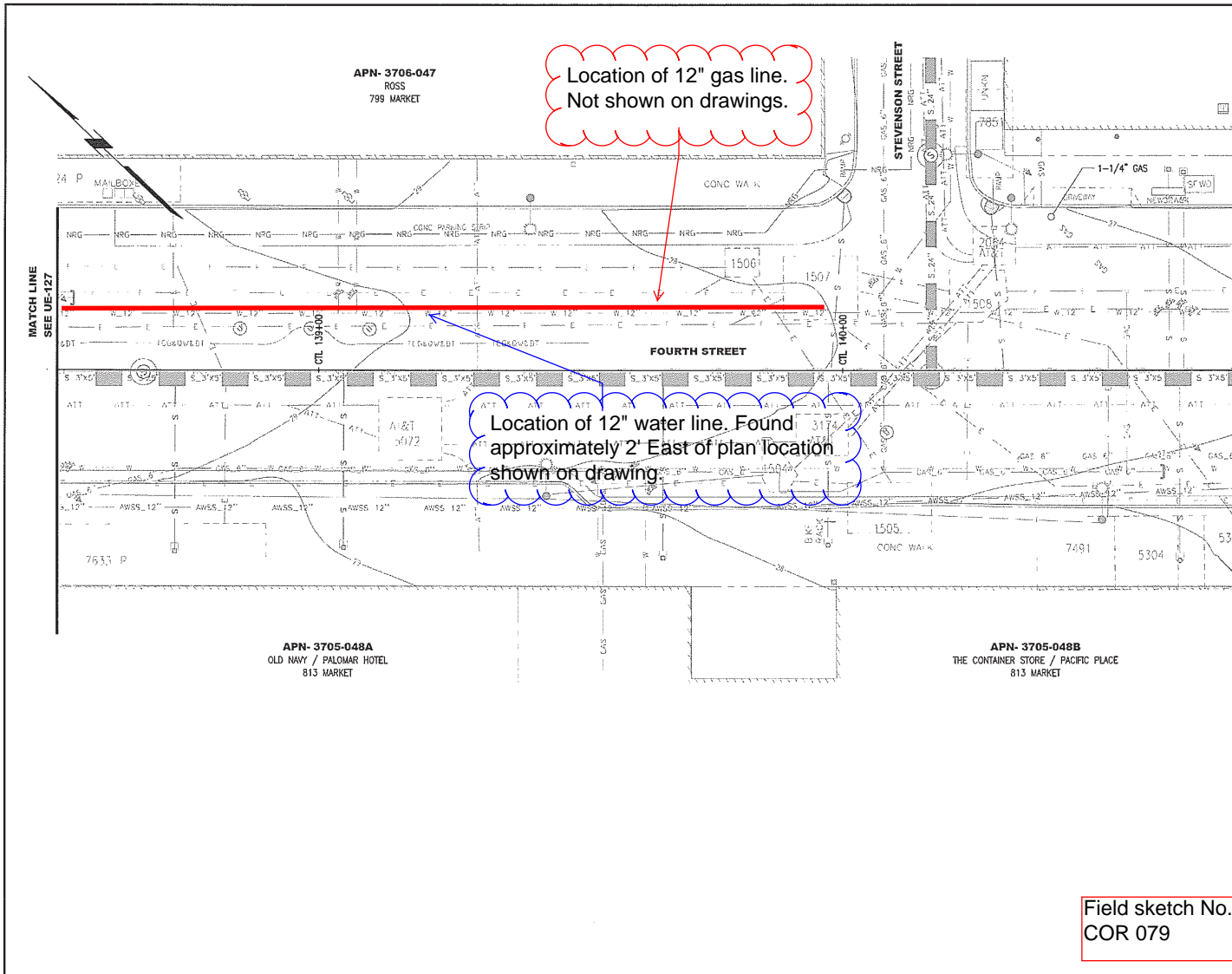
THIRD STREET LIGHT RAIL PROGRAM  
 PHASE 2 - CENTRAL SUBWAY  
 TUNNELS

EXISTING UTILITY COMPOSITE  
 CTL 136+80 TO 138+50

CONTRACT NO.	1252
SFMTA CONTRACT NO.	
DRAWING NO.	UE-127
SHEET NO.	

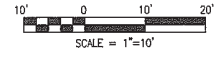


\\S:\6nas03.muni.sfgov.org\m544.1\FinalDesign\Drawing-821\2-Civil\Utility Composites\Sheet Files\CP03\_M64423UE128.dwg fboyani Wed Dec 15, 2010 - 3:25 pm UE-128



**NOTE:**  
EXISTING UTILITY COMPOSITE DRAWINGS WERE COMPILED FROM UTILITY RECORD PLANS OBTAINED FROM UTILITY AGENCIES AND ADJUSTED TO FIELD SURVEY SURFACE EVIDENCE AS PROVIDED IN OPW TOPOGRAPHIC SURVEY CAD FILE 2007R3.DWG. CONTRACTOR SHALL SATISFY HIMSELF/HERSELF AS TO THE CORRECTNESS OF EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY AND OBTAIN WRITTEN APPROVAL FROM ENGINEER OF ANY DISCREPANCIES, REVISIONS, AND ADDITIONAL WORK THAT IS REQUIRED AS A RESULT OF SUCH FIELD INVESTIGATION PRIOR TO BEGINNING ANY WORK.

**Field sketch No. 1252 - 046  
COR 079**

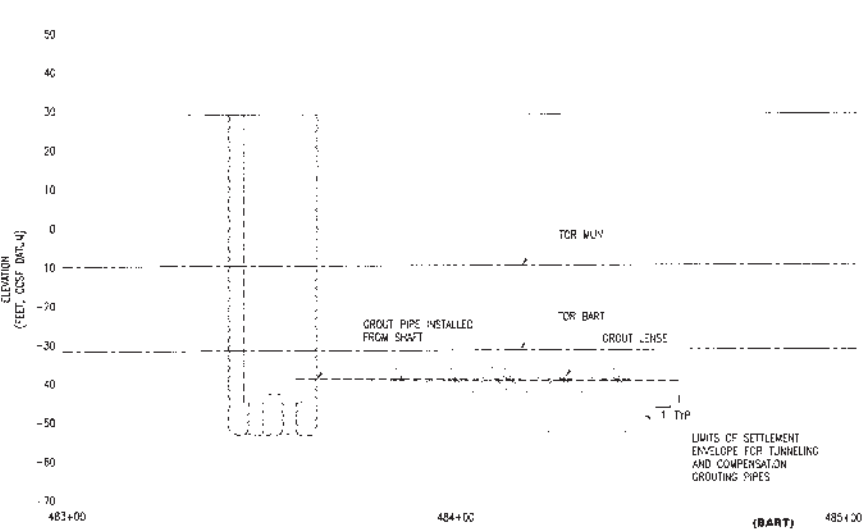


DRAWING IN PROGRESS / SUBJECT TO CHANGE / 11"X17" = HALF SIZE

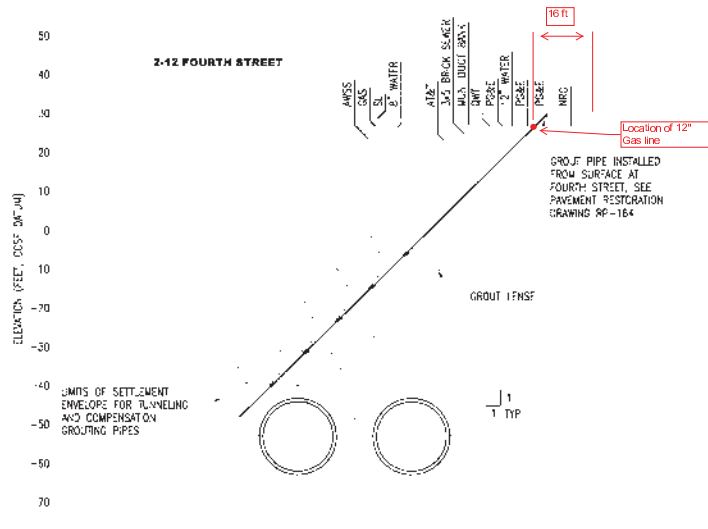
<b>SFMTA</b>		DESIGNED DRAWN CHECKED REVISIONS RECOMMENDED APPROVED DATE		CITY AND COUNTY OF SAN FRANCISCO <b>MUNICIPAL TRANSPORTATION AGENCY</b> APPROVED EXECUTIVE DIRECTOR/CEO	THIRD STREET LIGHT RAIL PROGRAM PHASE 2 - CENTRAL SUBWAY TUNNELS EXISTING UTILITY COMPOSITE CTL 138+50 TO 140+75	CONTRACT NO. <b>1252</b> SFMTA CONTROL NO. DRAWING NO. <b>UE-128</b> SHEET NO.
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BORDER REVISED 05/18/2009

\\s:\sfrs003\muni\slines\org\mst44\1\in\design\trains\821\3-structure\building\_protection\sheet\_files\6523\MS4423BP-24.dwg Internaly Thu Jan 27 2011 3:40 pm BP-124



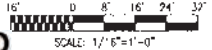
**SECTION C**  
BP-122



**SECTION C**  
BP-122

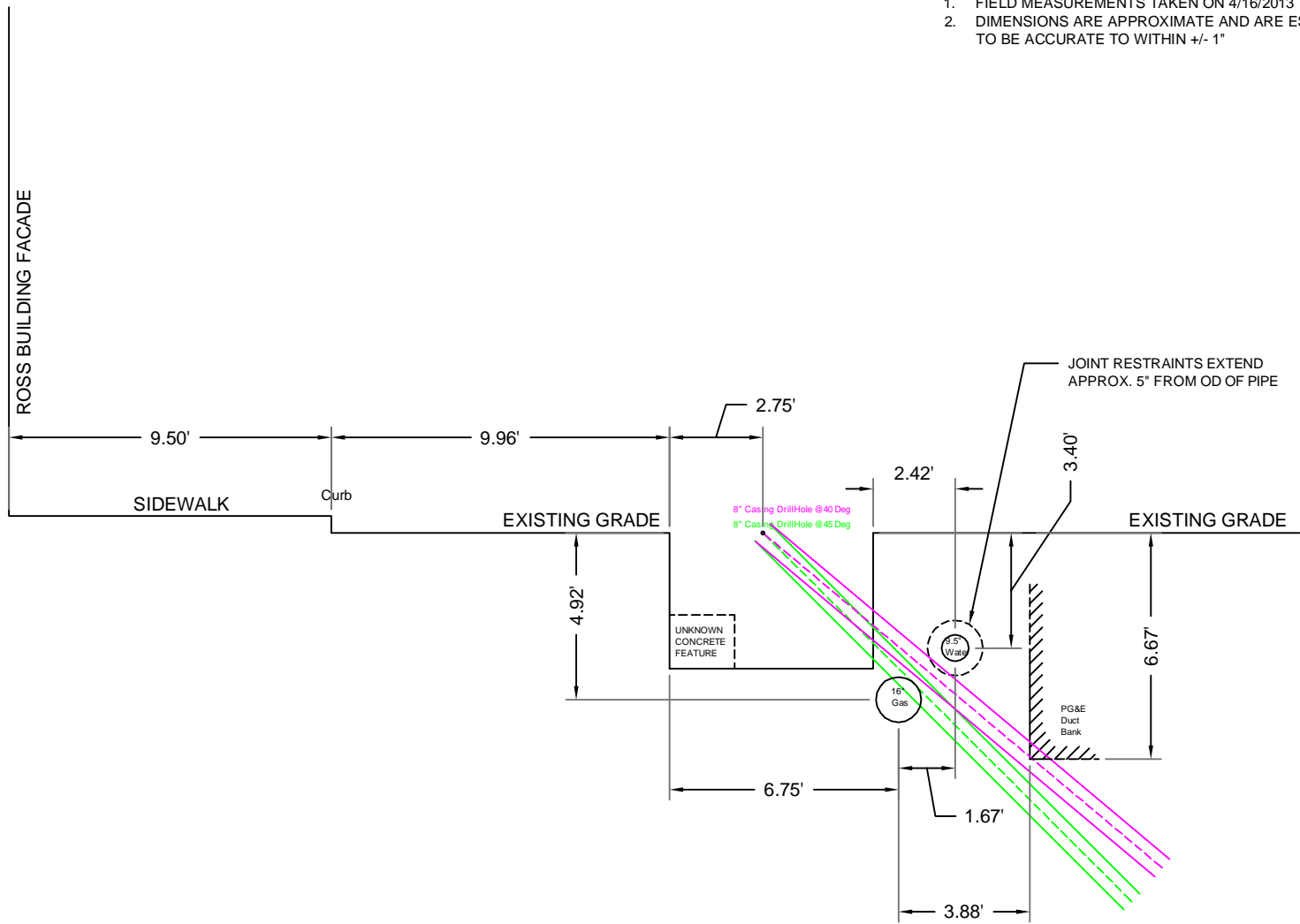
- NOTES:**
1. INDICATED GROUT LEVEL SHAPE AND EXTENT ARE FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL DETERMINE PRESSURES AND FLOW RATES TO ACHIEVE REQ. RED VOID FILLING AND SETTLEMENT CONTROL.
  2. INDICATED PIPE DEPTH FOR B. LING AT 2-12 FOURTH STREET IS TAKEN FROM THE REPORT "GEO-TECHNICAL INVESTIGATION RENOVATION & SEISMIC UPGRADE OF PACIFIC CENTER, 821 MARKET STREET, SC-1054-001"

Field Sketch No. 1252 - 047  
COR 079



**CONFORMED**

 PB AMERICAS, INC.	DATE: 12/22/08 DRAWN BY: [Signature] CHECKED BY: [Signature] W. FEARS		CITY AND COUNTY OF SAN FRANCISCO <b>MUNICIPAL TRANSPORTATION AGENCY</b>  APPROVED: [Signature] EXECUTIVE DIRECTOR/CEO	THIRD STREET LIGHT RAIL PROGRAM PHASE 2 - CENTRAL SUBWAY TUNNELS	1252 CL-18489
				BUILDING PROTECTION COMPENSATION GROUTING MARKET STREET AREA, SHEET 3 OF 3	BP-124 498 0



**GENERAL NOTES:**

1. FIELD MEASUREMENTS TAKEN ON 4/16/2013
2. DIMENSIONS ARE APPROXIMATE AND ARE ESTIMATED TO BE ACCURATE TO WITHIN +/- 1"

REVISION:

CENTRAL SUBWAY

**"OLD NAVY"  
COMP GROUT TRENCH  
POTHOLE NO. 1**

**BARNARD CONSTRUCTION  
COMPANY, INC.**  
701 GOLD AVE.  
BOZEMAN, MT 59715  
PHONE: (406) 586-1995  
www.barnard-inc.com

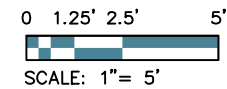


PLAN  
SHEET  
TITLE

SHEET

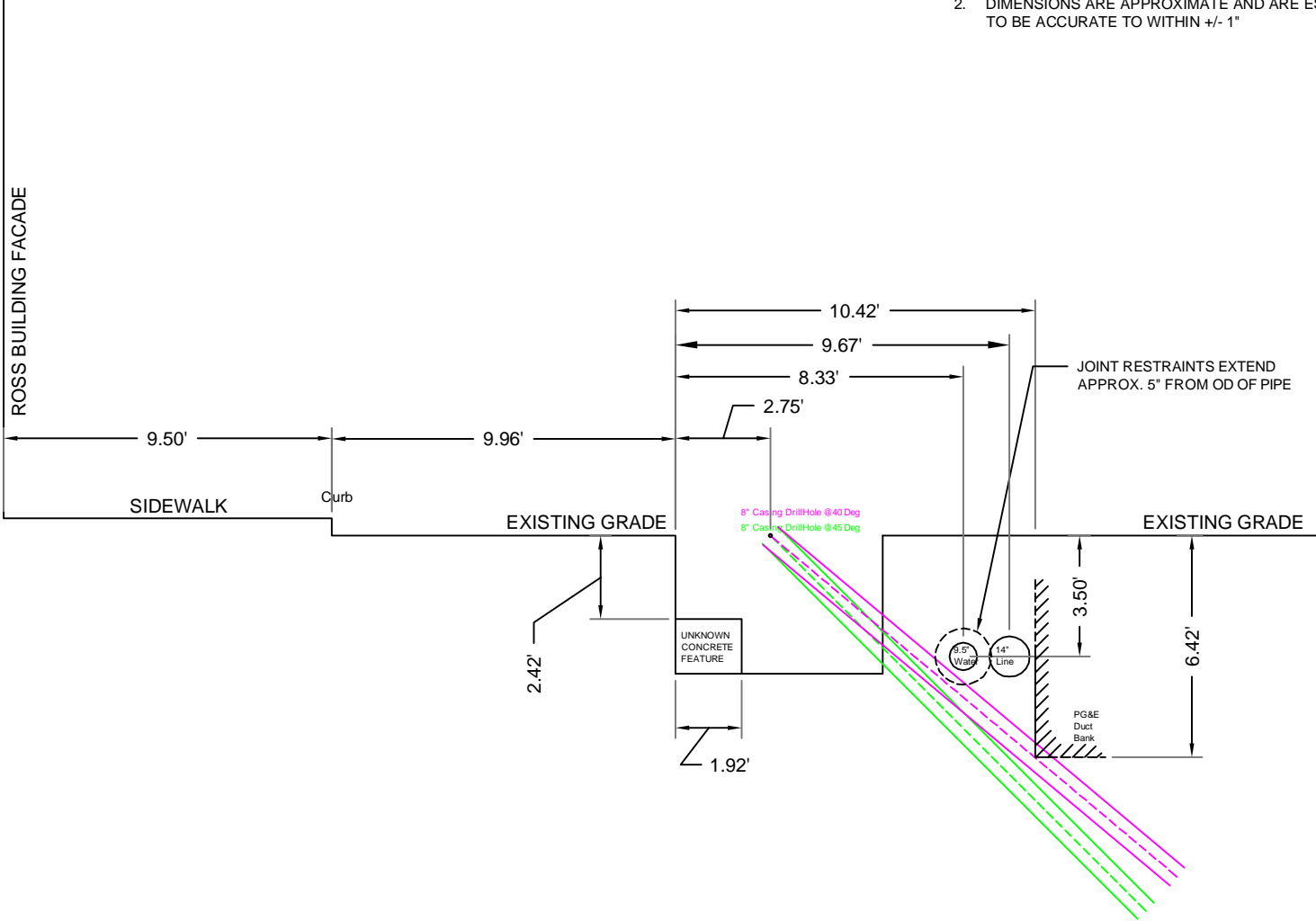
**PH-1**

**SECTION VIEW  
POTHOLE NO. 1 (PH-1)  
LOOKING SOUTH AT APPROX. STATION 138+38**

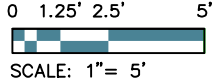


**GENERAL NOTES:**

1. FIELD MEASUREMENTS TAKEN ON 4/17/2013
2. DIMENSIONS ARE APPROXIMATE AND ARE ESTIMATED TO BE ACCURATE TO WITHIN +/- 1"



**SECTION VIEW  
POTHOLE NO. 2 (PH-2)  
LOOKING SOUTH AT APPROX. STATION 138+72**



REVISION:

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CENTRAL SUBWAY

**"OLD NAVY"  
COMP GROUT TRENCH  
POTHOLE NO. 2**

**BARNARD CONSTRUCTION  
COMPANY, INC.**  
701 GOLD AVE.  
BOZEMAN, MT 59715  
PHONE: (406) 586-1995  
www.barnard-inc.com



PLAN SHEET TITLE

SHEET  
**PH-2**



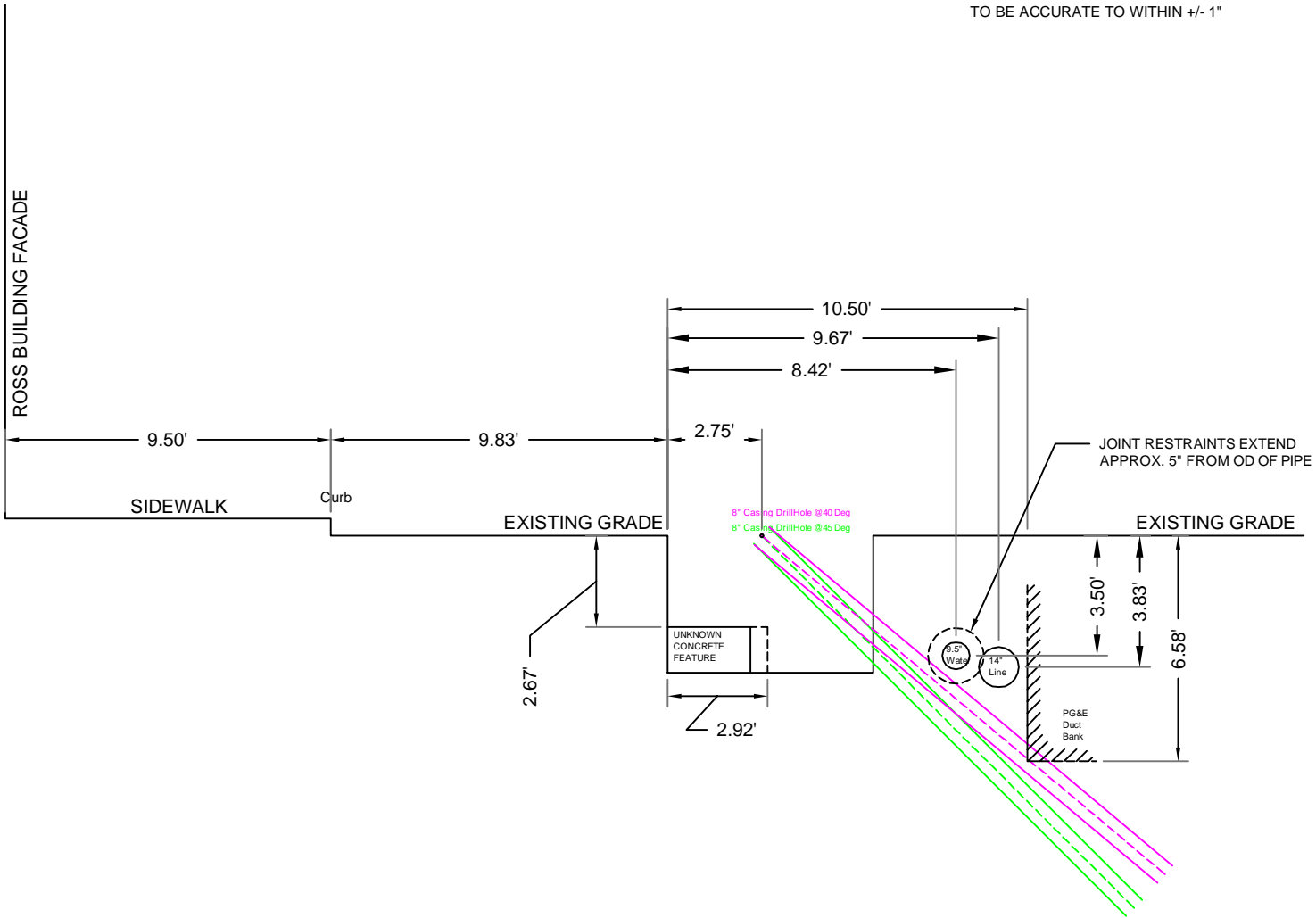
**GENERAL NOTES:**

1. FIELD MEASUREMENTS TAKEN ON 4/17/2013
2. DIMENSIONS ARE APPROXIMATE AND ARE ESTIMATED TO BE ACCURATE TO WITHIN +/- 1"

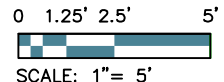
REVISION:				

CENTRAL SUBWAY

**"OLD NAVY"  
COMP GROUT TRENCH  
POTHOLE NO. 3**



**SECTION VIEW  
POTHOLE NO. 3 (PH-3)  
LOOKING SOUTH AT APPROX. STATION 139+07**



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COMPANY, INC.**  
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PHONE: (406) 586-1995  
www.barnard-inc.com

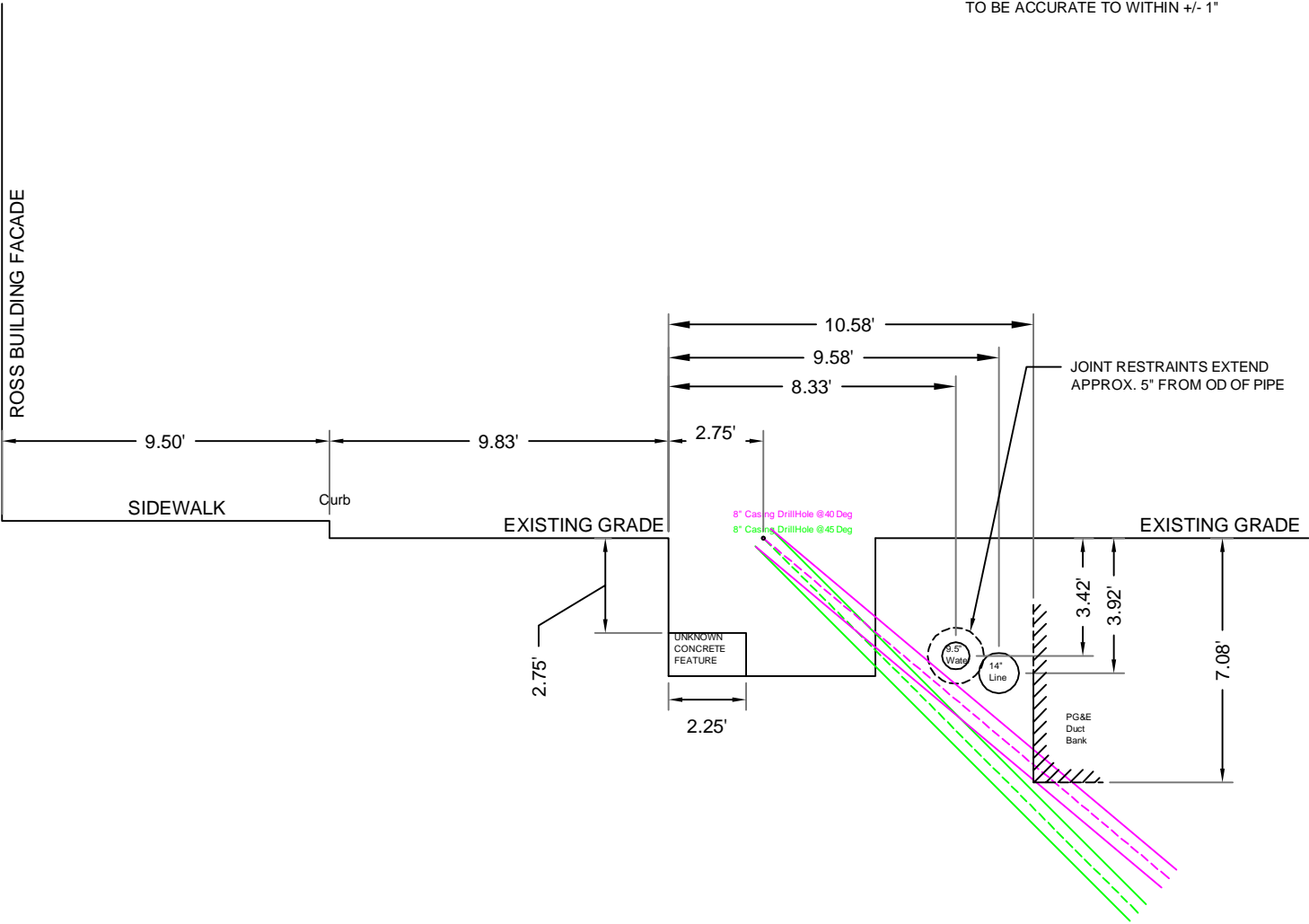


PLAN SHEET TITLE

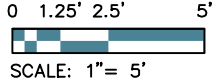
SHEET  
**PH-3**

**GENERAL NOTES:**

1. FIELD MEASUREMENTS TAKEN ON 4/17/2013
2. DIMENSIONS ARE APPROXIMATE AND ARE ESTIMATED TO BE ACCURATE TO WITHIN +/- 1"



**SECTION VIEW  
POTHOLE NO. 4 (PH-4)  
LOOKING SOUTH AT APPROX. STATION 139+42**



REVISION:

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CENTRAL SUBWAY

**"OLD NAVY"  
COMP GROUT TRENCH  
POTHOLE NO. 4**

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COMPANY, INC.**  
701 GOLD AVE.  
BOZEMAN, MT 59715  
PHONE: (406) 586-1995  
www.barnard-inc.com



PLAN SHEET TITLE

SHEET  
**PH-4**



04 03 2013 14:32



04.03.2013 14:32



04.03.2013 14.32





04.03.2013 14:33



04.16.2013 09:21



04.16.2013 08:21



04.16.2013 09:22



2" conduit empty

4-4" abandoned PG&E conduits  
with wire and tar still inside,  
Verified by Tom Riemier(PG&E)

03/08/2013





03/08/2013





03/11/2013





03/12/2013





03/12/2013



03/12/2013





Duct bank under PG&E lines removed

03/12/2013





03/13/2013

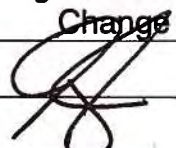
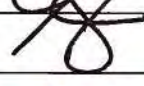

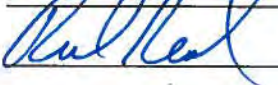







03/14/2013

**CMB Change No.: CMB – 145**

**Initial Implementing Change Control Procedure No.: 1252 – COR - 67**

GENERAL						
Proposed Change Sponsor: <u>S. Wilson</u>		Received by CMB: <u>11/06/2013</u>		(Date)		
Affected Disciplines: <u>Excavation and Ground Support</u>						
Impacts of Change <u>LB – Panel P-10 Buried Obstruction</u>						
Change Order Request (COR 67) Amount Not To Exceed \$9,984.00						
<b>Contract(s) Directly Affected by this Proposed Change:</b>						
1250 1 <input type="checkbox"/> (CP01)	1251 2 <input type="checkbox"/> (CP02)	1252 3 <input checked="" type="checkbox"/> (CP03)	1253 4 <input type="checkbox"/> (CP04)	1254 5 <input type="checkbox"/> (CP05)	1255 6 <input type="checkbox"/> (CP06)	1256 7 <input type="checkbox"/> (CP07)
CONFIGURATION MANAGEMENT BOARD APPROVALS						
<i>Signatures</i>						
		Agree with the Change	Disagree with the Change	Date		
Program Director:				11-6-13		
Deputy Program Manager:						
PM Project Services:				11/6/13		
PM Project Construction:						
SFMTA O & M Manager:						
SFMTA Safety and Security						
SFCTA PMO				6 Nov 13		
Comments						



COR 067 Panel P10											
	No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount
Labor	1	Excavating Inefficiencies at Panel P-10	58.0	39.0	\$ 2,973.84	\$ 2,555.74	\$ (418.10)	C uses duration from field FAR for ALL labor. EE uses average durations from QC report applied to agreed excavation crew.	Use QC reported durations as this was officially submitted at time of work. Use agreed excavation crew from other P Panels.	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 2,764.79
Equipment	1	Excavating Inefficiencies at Panel P-10	58.0	39.0	\$ 5,776.02	\$ 4,873.45	\$ (902.57)	C uses duration from field FAR for ALL equipment EE uses average durations from QC report applied to agreed excavation equipment	Use QC reported durations as this was officially submitted at time of work. Use agreed excavation equipment from other P Panels.	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 5,324.73
Materials	1	Excavating Inefficiencies at Panel P-10			\$ 148.13	\$ -	\$ (148.13)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates.	Subsistence costs and 'costs above straight time' removed.	\$ -
Markup LM&E (15%)					\$ 1,334.70	\$ 1,114.38	\$ (220.32)				Markup LM&E (15%) \$ 1,213.43
Sub. Bond/Insurance (0.52%)					\$ 53.21	\$ 44.43	\$ (8.78)				Sub. Bond/Insurance (0.52%) \$ 48.38
<b>CJA-NCC Subtotal</b>					<b>\$ 10,285.90</b>	<b>\$ 8,587.99</b>	<b>\$ (1,697.91)</b>				<b>CJA-NCC Subtotal \$ 9,351.33</b>
Prime Markup (5%)					\$ 514.29	\$ 429.40	\$ (84.90)				Prime Markup (5%) \$ 467.57
Prime Bond/Insurance (1.68%)					\$ 181.44	\$ 151.49	\$ (29.95)				Prime Bond/Insurance (1.68%) \$ 164.96
<b>Total</b>					<b>\$ 10,981.64</b>	<b>\$ 9,168.88</b>	<b>\$ (1,812.76)</b>				<b>RE Recommended Negotiated Amount \$ 9,983.85</b>

## Estimate Summary

**Scope/Background:**

A differing site condition was encountered while performing slurry wall construction along the east side of the Launch Box (PANEL P-10). Scope of work includes excavation inefficiencies.

**Estimated Cost:**

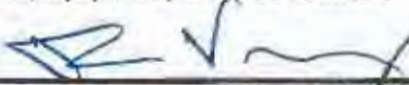
Labor	\$ 2,555.74
Material	\$ -
Equipment	\$ 4,873.45
2nd Tier Sub	\$ -
Markups	\$ 1,739.70
<b>Total</b>	<b>\$ 9,168.88</b>

**Stakeholders:** SFMTA, BIH, CIA-NCC

**Date of initial discovery:** 9/10/12

**List of attached documents:**

- Proposal/estimate comparison
- Detailed labor/equipment/materials estimate

  
\_\_\_\_\_

Estimate Prepared By: Ben Volberding

11/5/13  
Date:

  
\_\_\_\_\_

Estimate Checked By: Matt Hermbd

11/5/13  
Date:

COR 067										
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position		
Labor	1	Excavating Inefficiencies at Panel P-10	58.0	39.0	\$ 2,973.84	\$ 2,555.74	\$ (418.10)	C uses duration from field FAR for ALL labor. EE uses average durations from QC report applied to agreed excavation crew.	Use QC reported durations as this was officially submitted at time of work. Use agreed excavation crew from other P Panels.	
Equipment	1	Excavating Inefficiencies at Panel P-10			\$ 5,776.02	\$ 4,873.45	\$ (902.57)	C uses duration from field FAR for ALL equipment EE uses average durations from QC report applied to agreed excavation equipment	Use QC reported durations as this was officially submitted at time of work. Use agreed excavation equipment from other P Panels.	
Material	1	Excavating Inefficiencies at Panel P-10			\$ 148.13	\$ -	\$ (148.13)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates.	
<b>Markup LM&amp;E (15%)</b>				\$	1,334.70	\$	1,114.38	\$	(220.32)	
<b>Sub. Bond/Insurance (0.52%)</b>				\$	53.21	\$	44.43	\$	(8.78)	
<b>CJA-NCC Subtotal</b>				\$	10,285.90	\$	8,587.99	\$	(1,697.91)	
<b>Prime Markup (5%)</b>				\$	514.29	\$	429.40	\$	(84.90)	
<b>Prime Bond/Insurance (1.68%)</b>				\$	181.44	\$	151.49	\$	(29.95)	
<b>Total</b>				\$	<b>10,981.64</b>	\$	<b>9,168.88</b>	\$	<b>(1,812.76)</b>	
<b>RE Recommended NTE Amount</b>				\$	<b>12,500.00</b>	<b>\$11,648 + \$1,160 (Misc. Materials/Equipment Rate Differences)</b>				

Hourly rates:		\$52.79	\$69.66	\$52.60	\$69.38	\$52.48	\$73.24	\$96.17	\$70.59	\$68.87	\$48.99	\$75.85	#####	\$73.59	\$77.25	#####	#####	\$26.20						
Activity No.	Activity	Laborer (G1)	Laborer (G1) 1.5x OT	Laborer (G2)	Laborer (G2) 1.5x OT	Laborer (G3)	Operating Engineer (OE) (G2A)	Operating Engineer (OE) (G2A) 1.5x OT	Operating Engineer (OE) (G3)	Operating Engineer (OE) (G4)	Operating Engineer (OE) (APP1)	OE/Pile Driver (PD) (G1)	OE/Pile Driver (PD) (G1) 1.5x OT	OE/Pile Driver (PD) (G2)	Pile Driver Journ	Pile Driver Journ 1.5x OT		Excavating Spread (#1)	Koden (KDM-01)					Equipment Totals
1	Excavating Inefficiencies at Panel W-30 due to Wood Pile			13.01			13.01		13.01								\$ 2,555.74	13.01	2.00					\$ 4,873.45
<b>Total</b>																	\$ 2,555.74						\$ 4,873.45	

Labor	\$	2,555.74
Material	\$	-
Equipment	\$	4,873.45
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	1,114.38
1st Tier Sub Bond/Insurance - 0.52%	\$	44.43
<b>CJA-NCC Subtotal</b>	\$	<b>8,587.99</b>
Prime - Markup - 5%	\$	429.40
Prime - Bond/Insurance - 1.68%	\$	151.49
<b>Total Amount</b>	\$	<b>9,168.88</b>

**Assumptions:**  
 -Excavation inefficiencies duration based on SFMTA review of BIH QC reports  
 -Koden durations used are based on field FAR submitted with COR package  
 -All labor/equipment spreads based on agreements made during meetings between SFMTA, BJH and CJA-NCC



<i>Excavating Inefficiencies</i>					
<i> [#1]</i>					
<i>CJ-NC Code:</i>	<i>Description</i>	<i>SFMTA Approved Rate</i>	<i>Standby Factor</i>	<i>Standby Rate</i>	<i>Extended</i>
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					<b>\$ 370.54</b>

<b>Color Coding:</b>
Compensated using Standby Rates
Compensated using Active Rates

Material	Qty.	Unit	Unit Price	Extension
<b>Total</b>				\$ -

2nd Tier Sub Quote

\$ -

Slurry Wall Panel Obstructions  
P Panel Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Non-Impacted/Non-Outlier Panels</b>							
P01	7.50	8.50					16.00
P02	6.50	8.50	10.00				25.00
P03	9.50	8.50					18.00
P05	5.00	6.50					11.50
P06	9.00	7.50	3.00				19.50
P07	8.67	6.83					15.50
P11	9.50	8.50					18.00
P13	10.00						10.00
P14	3.50	8.50					12.00
P15	7.50						7.50
P16	8.50	8.00					16.50
P17	8.50						8.50
P18	2.00	8.50					10.50
P19	3.50	8.50					12.00
P20	4.17	8.50					12.67
P21	8.50	7.50	8.50				24.50
P22	4.67	8.17					12.84
P23	9.50						9.50
P24	3.67	4.83	7.33				15.83
P25	2.67	8.50	5.00				16.17
P26	6.83						6.83
P27	10.00						10.00
P28	7.50	7.83					15.33
P29	8.50	4.58					13.08
P30	11.00						11.00
P31	15.67						15.67
P32	2.67	8.50					11.17
P33	7.00	8.50					15.50
P34	3.00	10.50					13.50
P35	8.50						8.50
P36	8.50						8.50
P37	8.50	7.50					16.00
<b>Average Duration Per Non-Impacted/Non-Outlier Panels:</b>							<b>13.66</b>

Impacted Panels							
P09	5.00	9.50	9.50				24.00
P10	8.50	9.67	8.50				26.67
P12	10.17	7.50	13.00				30.67

Average Duration Per Non-Impacted/Non-Outlier Panels:	13.66
P-10 Duration:	26.67
<b>Average Additional Duration Due to Impacted P Panel:</b>	<b>13.01</b>

Outlier Panels (not considered)							
P08	8.50	4.00	5.67	8.50	5.17		31.84
P04	Missing						

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT


COR 067

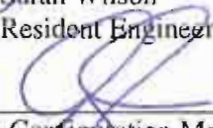
**Recommendation:** Accept justification of Merit for COR 067, Launch Box Panel P-10 Buried Obstruction.

**Facts:** On November 19<sup>th</sup> 2012, the Contractor encountered concrete encasement around a 12 inch clay sewer pipe within Slurry Wall (SW) panel P-10 at the TBM Launch Box approximately 7 feet below the top of the SW guidewall. An excavator was used to clear the obstruction. This change affects a critical path activity. SFMTA inspectors documented an impact of approximately 4 hours to SW P-10. We have asked the Contractor to combine the TIA for CORs 62, 65, and 67 and we have not yet received the TIA.

**Justification:** Drawing UD-502, Rev. 0 does not indicate the presence of the concrete encasement within the footprint of SW panel P-10. The concrete encasement prevented SW construction from occurring as originally planned. RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions caused the scope of work to increase.

**Change Type:** (2) Unforeseen Condition

By:  \_\_\_\_\_ 1/23/13  
Sarah Wilson Date  
Resident Engineer

 \_\_\_\_\_ 1-23-13  
Configuration Management Board Date  
Approval



SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

**EVALUATION OF MERIT**

**COR 067**

**Recommendation:** Accept justification of Merit for COR 067, Launch Box Panel P-10 Buried Obstruction.

**Facts:** On November 19<sup>th</sup> 2012, the Contractor encountered concrete encasement around a 12 inch clay sewer pipe within Slurry Wall (SW) panel P-10 at the TBM Launch Box approximately 7 feet below the top of the SW guidewall. An excavator was used to clear the obstruction. This change affects a critical path activity. SFMTA inspectors documented an impact of approximately 4 hours to SW P-10. We have asked the Contractor to combine the TIA for CORs 62, 65, and 67 and we have not yet received the TIA.

**Justification:** Drawing UD-502, Rev. 0 does not indicate the presence of the concrete encasement within the footprint of SW panel P-10. The concrete encasement prevented SW construction from occurring as originally planned. RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions caused the scope of work to increase.

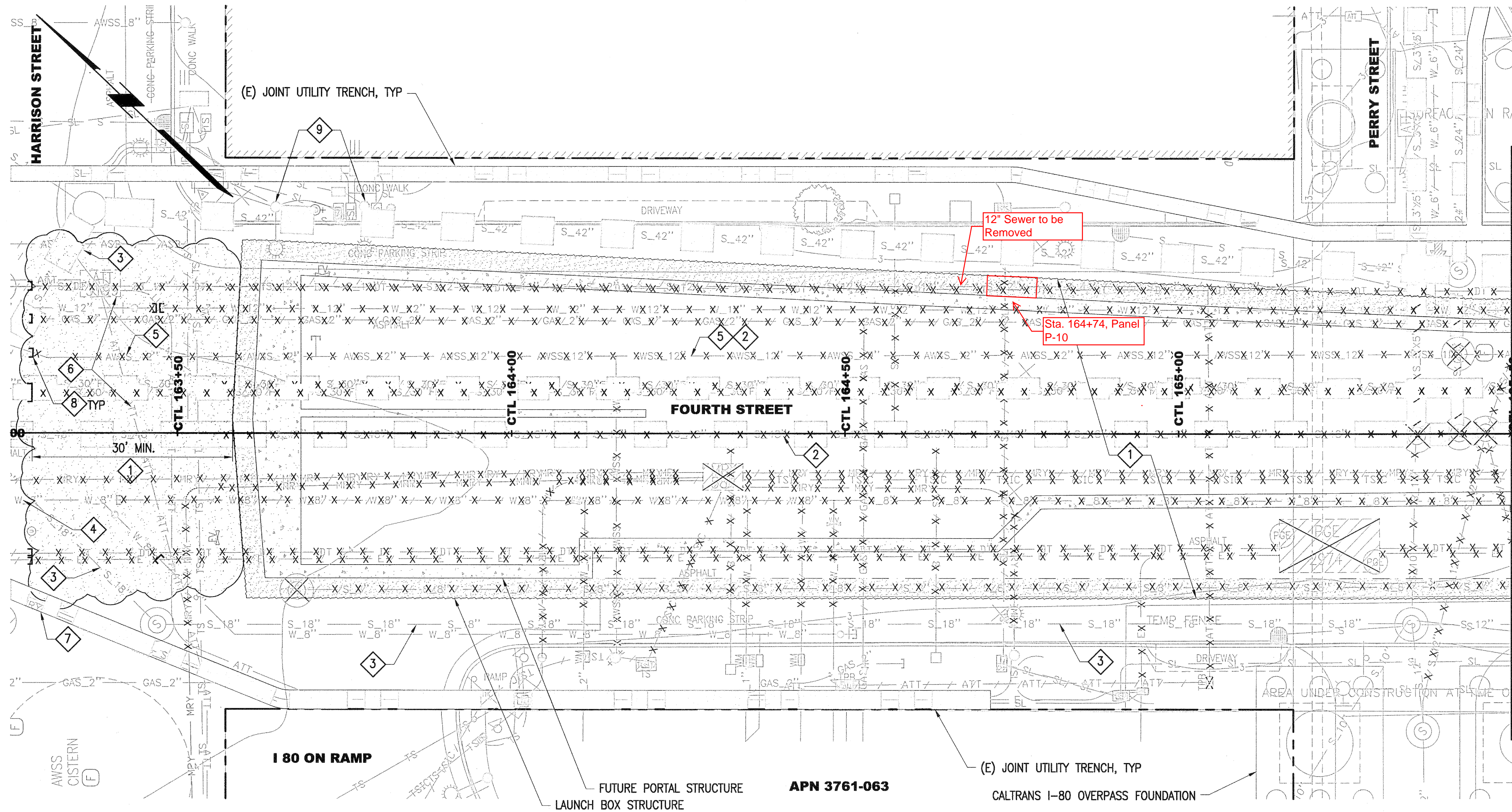
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Sarah Wilson  
Resident Engineer

\_\_\_\_\_ Date \_\_\_\_\_  
Configuration Management Board  
Approval

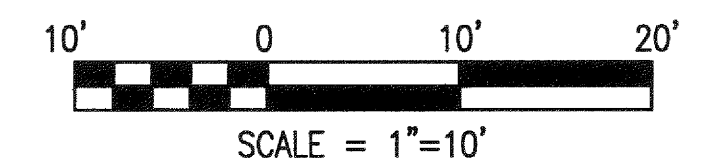


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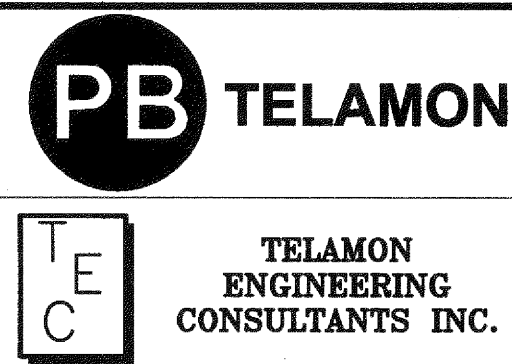
**NOTES:**

1. DEMOLISH AND REMOVE ALL ABANDONED UTILITY FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, WITHIN LIMITS OF LAUNCH BOX STRUCTURE AND TO THE LIMITS INDICATED, UNLESS OTHERWISE NOTED.
2. ACTIVE UTILITIES SHALL BE MAINTAINED UNTIL RELOCATION OR CUT OVER, UNLESS OTHERWISE NOTED. COORDINATE DEMOLITION WITH LAUNCH BOX CONSTRUCTION PHASING.
3. PROTECT (E) SEWER.
4. SEE (WD) DRAWINGS FOR ABANDONEMENT AND REMOVAL OF WATER FACILITIES.
5. SEE (AW) DRAWINGS FOR ABANDONMENT AND REMOVAL OF AWSS FACILITIES.
6. PROTECT (E) AT&T FACILITIES.
7. PROTECT (E) JOINT TRENCH.
8. CAP OR PLUG ALL ABANDONED FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, AT JET GROUT OR SLURRY WALL LIMIT.
9. (E) STREET LIGHT POLE. TEMPORARILY REMOVE POLE IF NECESSARY FOR LAUNCH BOX STRUCTURE CONSTRUCTION AND REINSTALL AFTER PORTAL CONSTRUCTION.

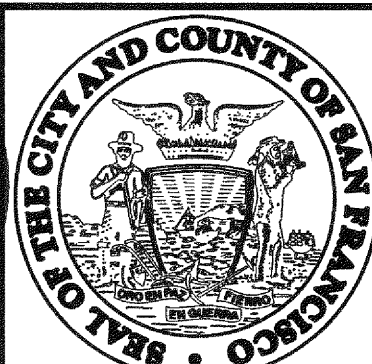
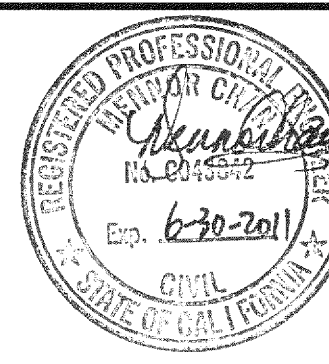


**CONFORMED**

DATE	ISSUED FOR BID	DESCRIPTION	REV. NO.	BY	CHECKED	APPROVED
01/21/2011			0			



DESIGNED: M. DEFORGE  
 DRAWN: E. MATIAS  
 CHECKED: D. ZUURING  
 REVIEWED: M. CHAN  
 RECOMMENDED: M. FOWLER  
 APPROVED: R. EDWARDS  
 DATE: JAN 21 2011



CITY AND COUNTY OF SAN FRANCISCO  
**MUNICIPAL TRANSPORTATION AGENCY**

APPROVED  
 CARTER R. ROHAN  
 EXECUTIVE DIRECTOR/CEO

THIRD STREET LIGHT RAIL PROGRAM  
 PHASE 2 - CENTRAL SUBWAY  
 TUNNELS

UTILITY DEMOLITION  
 FOURTH STREET PORTAL  
 CTL 163+25 TO 165+50

CONTRACT NO. <b>1252</b>	
SFMTA CONTROL NO. <b>CL-18032</b>	
DRAWING NO. <b>UD-502</b>	REVISION <b>0</b>
SHEET NO. <b>85</b>	







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COR 067 Panel P10												
	No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position	Negotiation Results	Negotiated Amount	
Labor	1	Excavating Inefficiencies at Panel P-10	58.0	39.0	\$ 2,973.84	\$ 2,555.74	\$ (418.10)	C uses duration from field FAR for ALL labor. EE uses average durations from QC report applied to agreed excavation crew.	Use QC reported durations as this was officially submitted at time of work. Use agreed excavation crew from other P Panels.	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 2,764.79	
Equipment	1	Excavating Inefficiencies at Panel P-10	58.0	39.0	\$ 5,776.02	\$ 4,873.45	\$ (902.57)	C uses duration from field FAR for ALL equipment EE uses average durations from QC report applied to agreed excavation equipment	Use QC reported durations as this was officially submitted at time of work. Use agreed excavation equipment from other P Panels.	Used average of Contractor's proposed cost and Engineer's estimated cost.	\$ 5,324.73	
Materials	1	Excavating Inefficiencies at Panel P-10			\$ 148.13	\$ -	\$ (148.13)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates.	Subsistence costs and 'costs above straight time' removed.	\$ -	
Markup LM&E (15%)					\$ 1,334.70	\$ 1,114.38	\$ (220.32)				Markup LM&E (15%)	\$ 1,213.43
Sub. Bond/Insurance (0.52%)					\$ 53.21	\$ 44.43	\$ (8.78)				Sub. Bond/Insurance (0.52%)	\$ 48.38
<b>CJA-NCC Subtotal</b>					<b>\$ 10,285.90</b>	<b>\$ 8,587.99</b>	<b>\$ (1,697.91)</b>				<b>CJA-NCC Subtotal</b>	<b>\$ 9,351.33</b>
Prime Markup (5%)					\$ 514.29	\$ 429.40	\$ (84.90)				Prime Markup (5%)	\$ 467.57
Prime Bond/Insurance (1.68%)					\$ 181.44	\$ 151.49	\$ (29.95)				Prime Bond/Insurance (1.68%)	\$ 164.96
<b>Total</b>					<b>\$ 10,981.64</b>	<b>\$ 9,168.88</b>	<b>\$ (1,812.76)</b>				<b>RE Recommended Negotiated Amount</b>	<b>\$ 9,983.85</b>

## Estimate Summary

**Scope/Background:**

A differing site condition was encountered while performing slurry wall construction along the east side of the Launch Box (PANEL P-10). Scope of work includes excavation inefficiencies.

**Estimated Cost:**

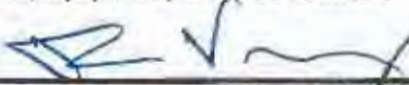
Labor	\$ 2,555.74
Material	\$ -
Equipment	\$ 4,873.45
2nd Tier Sub	\$ -
Markups	\$ 1,739.70
<b>Total</b>	<b>\$ 9,168.88</b>

**Stakeholders:** SFMTA, BIH, CIA-NCC

**Date of initial discovery:** 9/10/12

**List of attached documents:**

- Proposal/estimate comparison
- Detailed labor/equipment/materials estimate

  
\_\_\_\_\_

Estimate Prepared By: Ben Volberding

11/5/13  
Date:

  
\_\_\_\_\_

Estimate Checked By: Matt Hermb

11/5/13  
Date:

COR 067										
No.	Activity Name	Hours (C)	Hours (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Summary of Delta	Negotiation Position		
Labor	1	Excavating Inefficiencies at Panel P-10	58.0	39.0	\$ 2,973.84	\$ 2,555.74	\$ (418.10)	C uses duration from field FAR for ALL labor. EE uses average durations from QC report applied to agreed excavation crew.	Use QC reported durations as this was officially submitted at time of work. Use agreed excavation crew from other P Panels.	
Equipment	1	Excavating Inefficiencies at Panel P-10			\$ 5,776.02	\$ 4,873.45	\$ (902.57)	C uses duration from field FAR for ALL equipment EE uses average durations from QC report applied to agreed excavation equipment	Use QC reported durations as this was officially submitted at time of work. Use agreed excavation equipment from other P Panels.	
Material	1	Excavating Inefficiencies at Panel P-10			\$ 148.13	\$ -	\$ (148.13)	Sub including subsistence costs and costs for "straight time above scale"	SFMTA will only compensate using approved labor rates.	
<b>Markup LM&amp;E (15%)</b>				\$	1,334.70	\$	1,114.38	\$	(220.32)	
<b>Sub. Bond/Insurance (0.52%)</b>				\$	53.21	\$	44.43	\$	(8.78)	
<b>CJA-NCC Subtotal</b>				\$	10,285.90	\$	8,587.99	\$	(1,697.91)	
<b>Prime Markup (5%)</b>				\$	514.29	\$	429.40	\$	(84.90)	
<b>Prime Bond/Insurance (1.68%)</b>				\$	181.44	\$	151.49	\$	(29.95)	
<b>Total</b>				\$	<b>10,981.64</b>	\$	<b>9,168.88</b>	\$	<b>(1,812.76)</b>	
<b>RE Recommended NTE Amount</b>				\$	<b>12,500.00</b>	<b>\$11,648 + \$1,160 (Misc. Materials/Equipment Rate Differences)</b>				

Hourly rates:		\$52.79	\$69.66	\$52.60	\$69.38	\$52.48	\$73.24	\$96.17	\$70.59	\$68.87	\$48.99	\$75.85	#####	\$73.59	\$77.25	#####	#####	\$26.20						
Activity No.	Activity	Laborer (G1)	Laborer (G1) 1.5x OT	Laborer (G2)	Laborer (G2) 1.5x OT	Laborer (G3)	Operating Engineer (OE) (G2A)	Operating Engineer (OE) (G2A) 1.5x OT	Operating Engineer (OE) (G3)	Operating Engineer (OE) (G4)	Operating Engineer (OE) (APP1)	OE/Pile Driver (PD) (G1)	OE/Pile Driver (PD) (G1) 1.5x OT	OE/Pile Driver (PD) (G2)	Pile Driver Journ	Pile Driver Journ 1.5x OT		Excavating Spread (#1)	Koden (KDM-01)					Equipment Totals
1	Excavating Inefficiencies at Panel W-30 due to Wood Pile			13.01			13.01		13.01								\$ 2,555.74	13.01	2.00					\$ 4,873.45
<b>Total</b>																	\$ 2,555.74						\$ 4,873.45	

Labor	\$	2,555.74
Material	\$	-
Equipment	\$	4,873.45
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	1,114.38
1st Tier Sub Bond/Insurance - 0.52%	\$	44.43
<b>CJA-NCC Subtotal</b>	\$	<b>8,587.99</b>
Prime - Markup - 5%	\$	429.40
Prime - Bond/Insurance - 1.68%	\$	151.49
<b>Total Amount</b>	\$	<b>9,168.88</b>

**Assumptions:**  
 -Excavation inefficiencies duration based on SFMTA review of BIH QC reports  
 -Koden durations used are based on field FAR submitted with COR package  
 -All labor/equipment spreads based on agreements made during meetings between SFMTA, BJH and CJA-NCC



<i>Excavating Inefficiencies [#1]</i>					
<i>CJ-NC Code:</i>	<i>Description</i>	<i>SFMTA Approved Rate</i>	<i>Standby Factor</i>	<i>Standby Rate</i>	<i>Extended</i>
21134-AC	Liebherr HS855HD	\$ 211.16	0.30	\$ 63.35	\$ 211.16
21134-AK	Diesel Light Tower	\$ 7.84	0.11	\$ 0.86	\$ 7.84
QCD45004	Lutz with Nemo	\$ 11.80	0.52	\$ 6.14	\$ 11.80
SBA8551	Boom	\$ 85.96	0.50	\$ 42.98	\$ 85.96
SKE91401	Extension 36"	\$ 2.13	0.53	\$ 1.13	\$ 2.13
SKG70104	Grab Body	\$ 23.32	0.53	\$ 12.36	\$ 23.32
SKJ91401	Jaws 36"	\$ 9.31	0.53	\$ 4.93	\$ 9.31
GSG9141	Guide Extension	\$ 2.29	0.51	\$ 1.17	\$ 1.17
GSK8001	Grab	\$ 25.01	0.51	\$ 12.76	\$ 12.76
JSK9141	Jaw	\$ 9.99	0.51	\$ 5.09	\$ 5.09
					<b>\$ 370.54</b>

<b>Color Coding:</b>
Compensated using Standby Rates
Compensated using Active Rates

Material	Qty.	Unit	Unit Price	Extension
<b>Total</b>				\$ -

2nd Tier Sub Quote

\$ -

Slurry Wall Panel Obstructions  
P Panel Excavation Durations

Panel No.:	Excavation Shift Duration:						Total Crew Hours:
	1	2	3	4	5	6	
<b>Non-Impacted/Non-Outlier Panels</b>							
P01	7.50	8.50					16.00
P02	6.50	8.50	10.00				25.00
P03	9.50	8.50					18.00
P05	5.00	6.50					11.50
P06	9.00	7.50	3.00				19.50
P07	8.67	6.83					15.50
P11	9.50	8.50					18.00
P13	10.00						10.00
P14	3.50	8.50					12.00
P15	7.50						7.50
P16	8.50	8.00					16.50
P17	8.50						8.50
P18	2.00	8.50					10.50
P19	3.50	8.50					12.00
P20	4.17	8.50					12.67
P21	8.50	7.50	8.50				24.50
P22	4.67	8.17					12.84
P23	9.50						9.50
P24	3.67	4.83	7.33				15.83
P25	2.67	8.50	5.00				16.17
P26	6.83						6.83
P27	10.00						10.00
P28	7.50	7.83					15.33
P29	8.50	4.58					13.08
P30	11.00						11.00
P31	15.67						15.67
P32	2.67	8.50					11.17
P33	7.00	8.50					15.50
P34	3.00	10.50					13.50
P35	8.50						8.50
P36	8.50						8.50
P37	8.50	7.50					16.00
<b>Average Duration Per Non-Impacted/Non-Outlier Panels:</b>							<b>13.66</b>

<b>Impacted Panels</b>							
P09	5.00	9.50	9.50				24.00
P10	8.50	9.67	8.50				26.67
P12	10.17	7.50	13.00				30.67

Average Duration Per Non-Impacted/Non-Outlier Panels:	13.66
P-10 Duration:	26.67
<b>Average Additional Duration Due to Impacted P Panel:</b>	<b>13.01</b>

<b>Outlier Panels (not considered)</b>							
P08	8.50	4.00	5.67	8.50	5.17		31.84
P04	<b>Missing</b>						

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

**EVALUATION OF MERIT**


**COR 067**

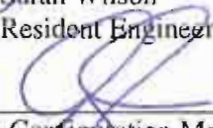
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**Change Type:** (2) Unforeseen Condition

By:  \_\_\_\_\_ 1/23/13  
Sarah Wilson Date  
Resident Engineer

 \_\_\_\_\_ 1-23-13  
Configuration Management Board Date  
Approval



SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

**EVALUATION OF MERIT**

**COR 067**

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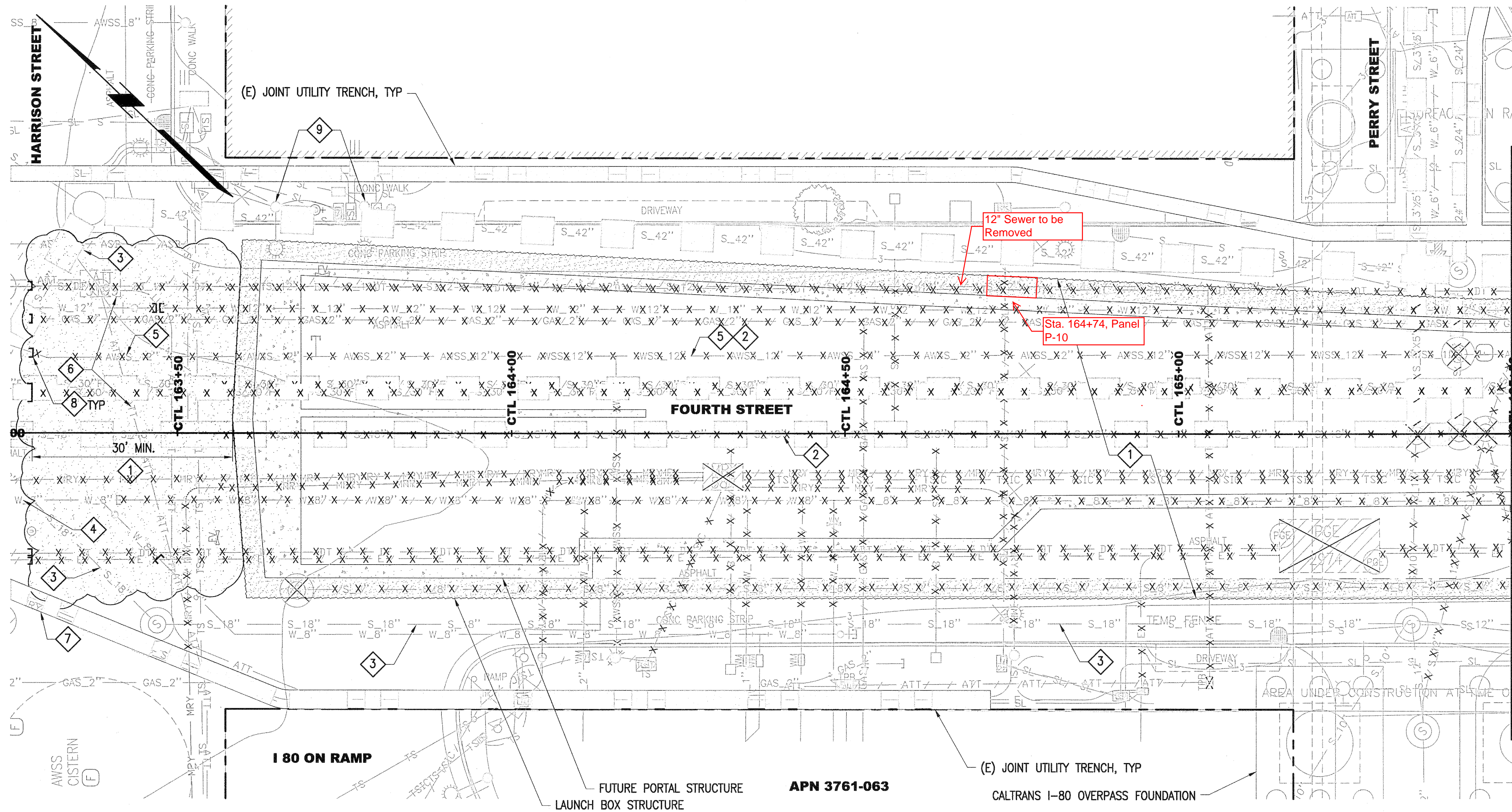
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By: \_\_\_\_\_ Date \_\_\_\_\_  
Sarah Wilson  
Resident Engineer

\_\_\_\_\_ Date \_\_\_\_\_  
Configuration Management Board  
Approval

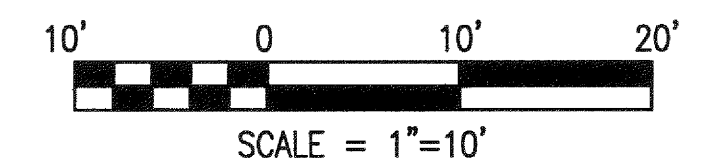


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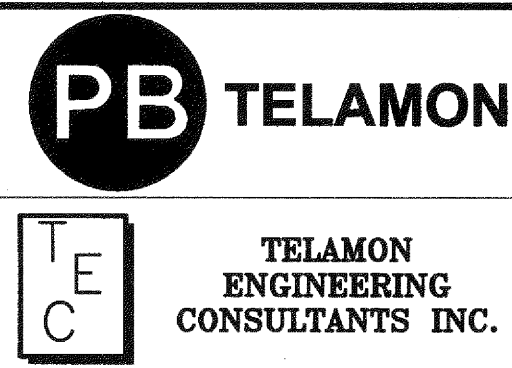
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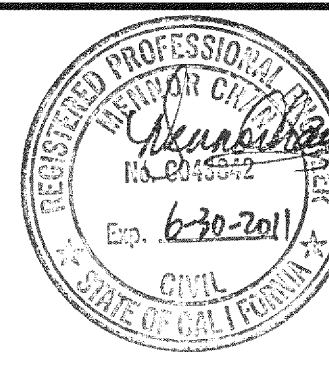


**CONFORMED**

DATE	ISSUED FOR BID	DESCRIPTION	REV. NO.	BY	CHECKED	APPROVED
01/21/2011			0			



DESIGNED: M. DEFORGE  
 DRAWN: E. MATIAS  
 CHECKED: D. ZUURING  
 REVIEWED: M. CHAN  
 RECOMMENDED: M. FOWLER  
 APPROVED: R. EDWARDS  
 DATE: JAN 21 2011



CITY AND COUNTY OF SAN FRANCISCO  
**MUNICIPAL TRANSPORTATION AGENCY**

APPROVED  
 CARTER R. ROHAN  
 EXECUTIVE DIRECTOR/CEO

THIRD STREET LIGHT RAIL PROGRAM  
 PHASE 2 - CENTRAL SUBWAY  
 TUNNELS

UTILITY DEMOLITION  
 FOURTH STREET PORTAL  
 CTL 163+25 TO 165+50

CONTRACT NO. <b>1252</b>	
SFMTA CONTROL NO. <b>CL-18032</b>	
DRAWING NO. <b>UD-502</b>	REVISION <b>0</b>
SHEET NO. <b>85</b>	







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BIH COR No.	Slurry Wall Panel No.	Contractor's Proposal	SFMTA Estimate	Delta	Negotiated
COR 032	W29	\$ 49,966.07	\$ 36,636.15	\$ 13,329.92	\$ 41,960.69
COR 034	W28	\$ 40,910.67	\$ 47,808.01	\$ (6,897.35)	\$ 43,293.82
COR 042	W25	\$ 54,537.66	\$ 34,260.48	\$ 20,277.18	\$ 42,893.23
COR 043	W30	\$ 16,726.21	\$ 12,561.31	\$ 4,164.89	\$ 14,196.56
COR 062	P09	\$ 44,711.78	\$ 40,938.21	\$ 3,773.57	\$ 41,587.43
COR 065	P12	\$ 40,361.83	\$ 42,962.31	\$ (2,600.48)	\$ 40,522.49
COR 067	P10	\$ 10,981.64	\$ 9,168.88	\$ 1,812.76	\$ 9,983.85
<b>Total</b>		<b>\$ 258,195.85</b>	<b>\$ 224,335.35</b>	<b>\$ 33,860.49</b>	<b>\$ 234,438.07</b>

		Contractor's Proposal	SFMTA Estimate	Delta	Negotiated
COR 032 Panel W29	Labor	\$ 11,063.11	\$ 8,871.36	\$ 2,191.75	\$ 9,967.24
	Equipment	\$ 20,468.45	\$ 14,031.66	\$ 6,436.79	\$ 17,250.06
	Materials	\$ 8,953.99	\$ 6,781.81	\$ 2,172.18	\$ 6,781.81
	CJA-NCC Markups (15% Overhead/Profit and 0.52% Bonds/Insurance)	\$ 6,314.94	\$ 4,630.24	\$ 1,684.70	\$ 5,303.18
	<b>CJA-NCC Subtotal</b>	<b>\$ 46,800.49</b>	<b>\$ 34,315.08</b>	<b>\$ 12,485.41</b>	<b>\$ 39,302.28</b>
	BIH Markups (5% Overhead/Profit and 1.68% Bonds/Insurance)	\$ 3,165.58	\$ 2,321.07	\$ 844.51	\$ 2,658.41
	<b>BIH Total</b>	<b>\$ 49,966.07</b>	<b>\$ 36,636.15</b>	<b>\$ 13,329.92</b>	<b>\$ 41,960.69</b>

		Contractor's Proposal	SFMTA Estimate	Delta	Negotiated
COR 034 Panel W28	Labor	\$ 8,234.69	\$ 12,634.96	\$ (4,400.27)	\$ 10,434.83
	Equipment	\$ 18,211.77	\$ 21,126.85	\$ (2,915.08)	\$ 19,669.31
	Materials	\$ 6,701.85	\$ 4,975.15	\$ 1,726.70	\$ 4,975.15
	CJA-NCC Markups (15% Overhead/Profit and 0.52% Bonds/Insurance)	\$ 5,170.47	\$ 6,042.19	\$ (871.72)	\$ 5,471.67
	<b>CJA-NCC Subtotal</b>	<b>\$ 38,318.78</b>	<b>\$ 44,779.15</b>	<b>\$ (6,460.37)</b>	<b>\$ 40,550.95</b>
	BIH Markups (5% Overhead/Profit and 1.68% Bonds/Insurance)	\$ 2,591.88	\$ 3,028.86	\$ (436.98)	\$ 2,742.87
	<b>BIH Total</b>	<b>\$ 40,910.67</b>	<b>\$ 47,808.01</b>	<b>\$ (6,897.35)</b>	<b>\$ 43,293.82</b>

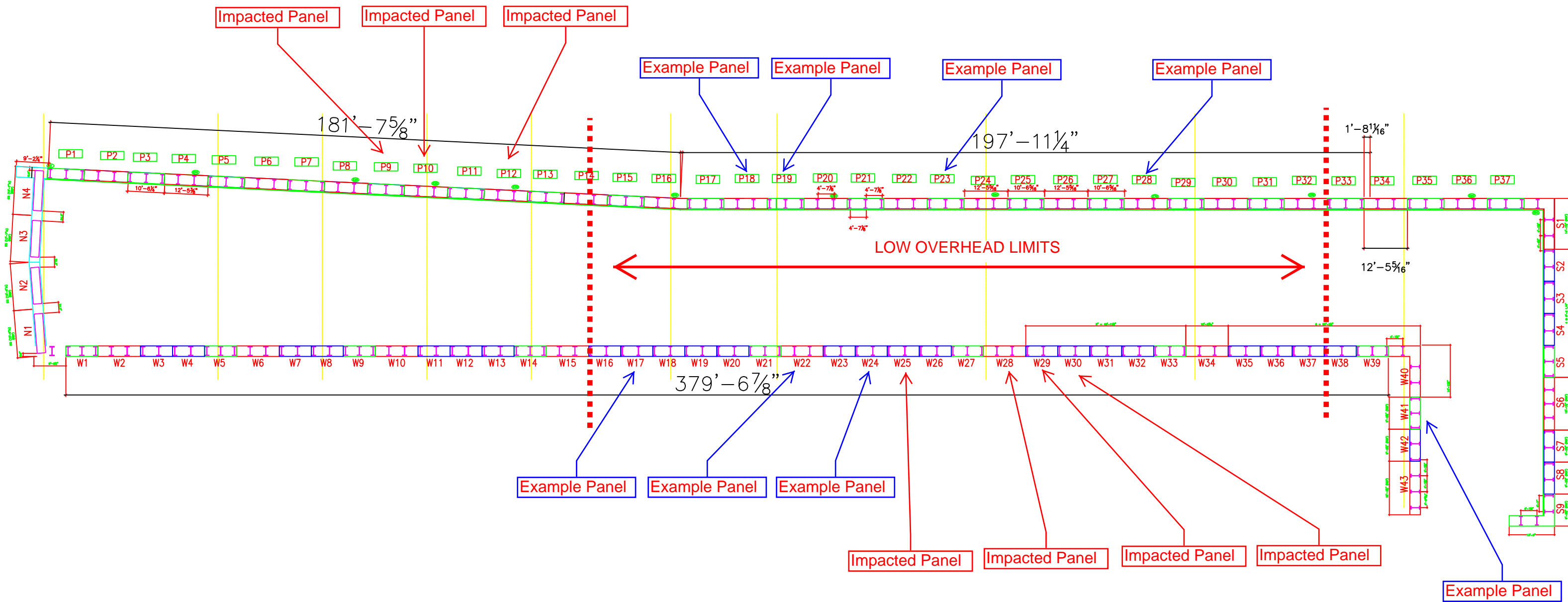
		Contractor's Proposal	SFMTA Estimate	Delta	Negotiated
COR 042 Panel W25	Labor	\$ 11,441.67	\$ 8,071.89	\$ 3,369.78	\$ 9,756.78
	Equipment	\$ 23,191.44	\$ 12,571.65	\$ 10,619.79	\$ 17,881.55
	Materials	\$ 9,556.62	\$ 7,116.38	\$ 2,440.24	\$ 7,116.38
	CJA-NCC Markups (15% Overhead/Profit and 0.52% Bonds/Insurance)	\$ 6,892.71	\$ 4,329.99	\$ 2,562.72	\$ 5,421.04
	<b>CJA-NCC Subtotal</b>	<b>\$ 51,082.44</b>	<b>\$ 32,089.92</b>	<b>\$ 18,992.53</b>	<b>\$ 40,175.75</b>
	BIH Markups (5% Overhead/Profit and 1.68% Bonds/Insurance)	\$ 3,455.22	\$ 2,170.56	\$ 1,284.65	\$ 2,717.49
	<b>BIH Total</b>	<b>\$ 54,537.66</b>	<b>\$ 34,260.48</b>	<b>\$ 20,277.18</b>	<b>\$ 42,893.23</b>

		Contractor's Proposal	SFMTA Estimate	Delta	Negotiated
COR 043 Panel W30	Labor	\$ 3,797.63	\$ 2,880.32	\$ 917.31	\$ 3,338.97
	Equipment	\$ 7,270.77	\$ 5,538.12	\$ 1,732.65	\$ 6,404.45
	Materials	\$ 2,484.19	\$ 1,759.50	\$ 724.69	\$ 1,759.50
	CJA-NCC Markups (15% Overhead/Profit and 0.52% Bonds/Insurance)	\$ 2,113.93	\$ 1,587.55	\$ 526.38	\$ 1,794.23
	<b>CJA-NCC Subtotal</b>	<b>\$ 15,666.52</b>	<b>\$ 11,765.49</b>	<b>\$ 3,901.03</b>	<b>\$ 13,297.15</b>
	BIH Markups (5% Overhead/Profit and 1.68% Bonds/Insurance)	\$ 1,059.68	\$ 795.82	\$ 263.87	\$ 899.42
	<b>BIH Total</b>	<b>\$ 16,726.21</b>	<b>\$ 12,561.31</b>	<b>\$ 4,164.89</b>	<b>\$ 14,196.56</b>

		Contractor's Proposal	SFMTA Estimate	Delta	Negotiated
COR 062 Panel P09	Labor	\$ 8,789.15	\$ 8,802.94	\$ (13.79)	\$ 8,796.04
	Equipment	\$ 15,414.43	\$ 14,348.57	\$ 1,065.86	\$ 14,881.50
	Materials	\$ 12,024.62	\$ 10,019.12	\$ 2,005.50	\$ 10,019.12
	CJA-NCC Markups (15% Overhead/Profit and 0.52% Bonds/Insurance)	\$ 5,650.87	\$ 5,173.95	\$ 476.92	\$ 5,256.01
	<b>CJA-NCC Subtotal</b>	<b>\$ 41,879.07</b>	<b>\$ 38,344.58</b>	<b>\$ 3,534.49</b>	<b>\$ 38,952.67</b>
	BIH Markups (5% Overhead/Profit and 1.68% Bonds/Insurance)	\$ 2,832.70	\$ 2,593.63	\$ 239.07	\$ 2,634.76
	<b>BIH Total</b>	<b>\$ 44,711.78</b>	<b>\$ 40,938.21</b>	<b>\$ 3,773.57</b>	<b>\$ 41,587.43</b>

		Contractor's Proposal	SFMTA Estimate	Delta	Negotiated
COR 065 Panel P12	Labor	\$ 8,295.96	\$ 9,671.16	\$ (1,375.20)	\$ 8,983.56
	Equipment	\$ 13,311.61	\$ 15,890.19	\$ (2,578.58)	\$ 14,600.90
	Materials	\$ 11,096.04	\$ 9,249.33	\$ 1,846.72	\$ 9,249.33
	CJA-NCC Markups (15% Overhead/Profit and 0.52% Bonds/Insurance)	\$ 5,101.11	\$ 5,429.77	\$ (328.66)	\$ 5,121.41
	<b>CJA-NCC Subtotal</b>	<b>\$ 37,804.72</b>	<b>\$ 40,240.45</b>	<b>\$ (2,435.73)</b>	<b>\$ 37,955.20</b>
	BIH Markups (5% Overhead/Profit and 1.68% Bonds/Insurance)	\$ 2,557.11	\$ 2,721.86	\$ (164.75)	\$ 2,567.29
	<b>BIH Total</b>	<b>\$ 40,361.83</b>	<b>\$ 42,962.31</b>	<b>\$ (2,600.48)</b>	<b>\$ 40,522.49</b>

		Contractor's Proposal	SFMTA Estimate	Delta	Negotiated
COR 067 Panel P10	Labor	\$ 2,973.84	\$ 2,555.74	\$ 418.10	\$ 2,764.79
	Equipment	\$ 5,776.02	\$ 4,873.45	\$ 902.57	\$ 5,324.73
	Materials	\$ 148.13	\$ -	\$ 148.13	\$ -
	CJA-NCC Markups (15% Overhead/Profit and 0.52% Bonds/Insurance)	\$ 1,387.91	\$ 1,158.80	\$ 229.10	\$ 1,261.80
	<b>CJA-NCC Subtotal</b>	<b>\$ 10,285.90</b>	<b>\$ 8,587.99</b>	<b>\$ 1,697.91</b>	<b>\$ 9,351.33</b>
	BIH Markups (5% Overhead/Profit and 1.68% Bonds/Insurance)	\$ 695.74	\$ 580.89	\$ 114.85	\$ 632.52
	<b>BIH Total</b>	<b>\$ 10,981.64</b>	<b>\$ 9,168.88</b>	<b>\$ 1,812.76</b>	<b>\$ 9,983.85</b>



NOTE: Per Quality Control reports, most timber pile obstructions were encountered at various locations between 9' and 22'

## CS CN 1252 Letter No. 245

October 23, 2013

Barnard Impregilo Healy JV  
420 Fourth Street  
San Francisco, CA 94107

**Attn:** Ben Campbell

**Reference:** Contract 1252 Central Subway  
Tunnels

**Subject:** No Merit on Time Extensions for Slurry Wall Impacts at the Launch Box (CORS 32, 34, 42, 43, 62, 65, & 67)

Dear Mr. Campbell:

BIHJV has provided Time Impact Analysis (TIAs) for slurry wall impacts at the launch box for the west and eastside of 4<sup>th</sup> Street. Although the TIAs were provided after the contract deadlines, the SFMTA has reviewed them and determined no merit for the requested extension of time.

BIHJV is referred to Specification Section 01 32 13- 1.03.C.6.C:

It is acknowledged and agreed by the Contractor that SFMTA caused delays on the project may be offset by SFMTA caused time savings (including, but not limited to: critical path submittals returned in less time than allowed for in the Contract, approval of substitution requests which result in a savings of time along the critical path for the Contractor, etc.). In such an event, the Contractor will not be entitled to receive an extension of time or delay damages until SFMTA caused time saving is exceeded and Contract completion date is also exceeded.

For slurry wall impacts on the westside of 4<sup>th</sup> Street (CORS 32, 34, 42, & 43) BIHJV requested a time extension of seven (7) calendar days. The SFMTA has determined no merit based upon the SFMTA time savings for expediting the approval of a critical path submittal. The SFMTA expedited the approval of the S Curve Traffic Control Plan (on critical path) which saved more time than the westside panels would have delayed the project. The implementation of the S curve plan was dependent on a new traffic control plan submittal number 01 55 26-016 Review Cycle 001 that was submitted on September 19, 2012. According to Specification Section 01 33 00 1.05D the SFMTA has 20 working days to review a submittal which would have required a response by October 17, 2012. Due to the urgency of this submittal the SFMTA expedited a response by September 26, 2012. The S curve was implemented by October 3, 2012 not October 17, 2012 because of the accelerated review. Therefore the SFMTA time savings on the expedited review of the submittal substantially exceed any delay the SFMTA might have caused on the westside panels.

For slurry wall impacts on the eastside of 4<sup>th</sup> Street (CORS 62, 65, & 67) BIHJV requested a time extension of six (6) calendar days. The SFMTA has determined no merit based upon the SFMTA time savings attributed to the continuous full closure of 4<sup>th</sup> Street from November 2, 2012 - January 14, 2013. The closure of 4<sup>th</sup> Street, which was not allowed by the original



contract, allowed for multiple critical path activities to be performed concurrently and to be prosecuted in a more efficient manner. The SFMTA has continuously requested that BIHJV submit a COR or proposal for cost and schedule savings for the continuous full closure of 4<sup>th</sup> Street in multiple meetings and in SFMTA Letter Nos. 070, 077, 111, 128, and 153. Absent any submissions from BIHJV and in order to facilitate payment of the direct costs associated with these CORs, the SFMTA performed its own analysis. The SFMTA has determined that the time savings attributed to closing 4<sup>th</sup> Street exceeded any eastside delays the SFMTA caused the project. No time extension is granted for the subject CORs.

Sincerely,

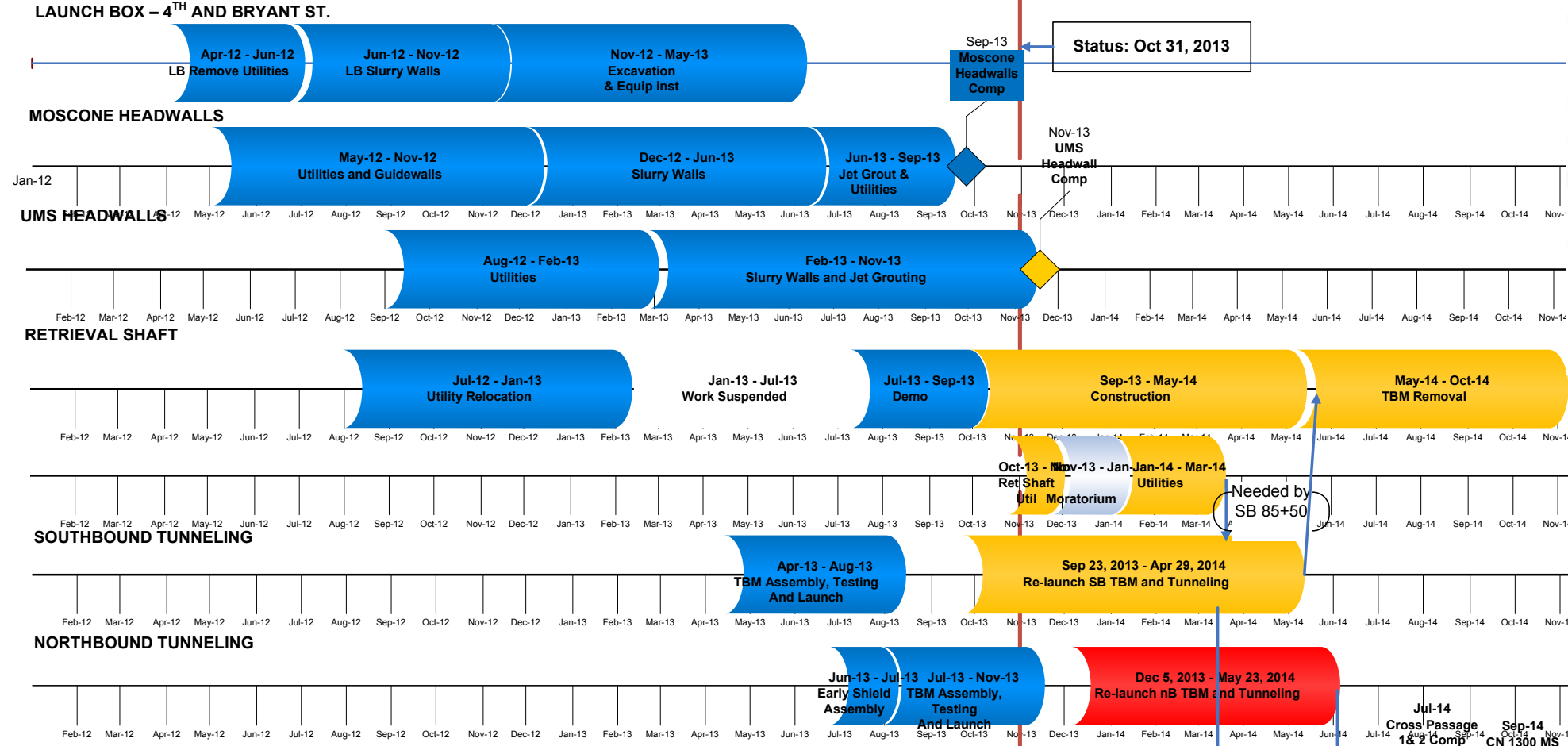
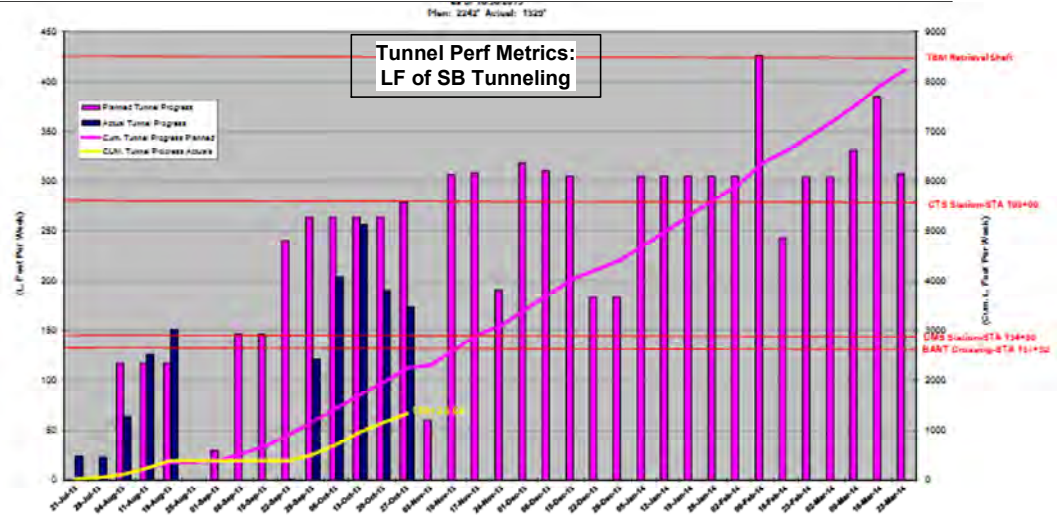


Sarah Wilson  
CN 1252 Resident Engineer  
SFMTA Central Subway Project

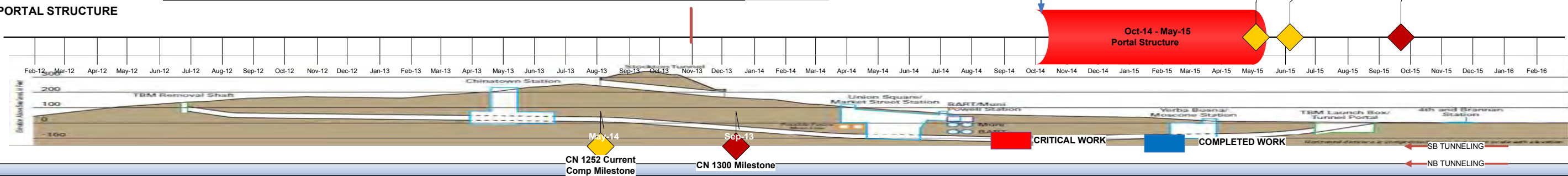
Cc: Alessandro Tricamo, BIHJV  
John Funghi, SFMTA  
Mark Benson, SFMTA  
Richard Redmond, SFMTA  
Brian Kelleher, SFMTA

M544.1.3.1252.0030

# SFMTA-CENTRAL SUBWAY: TUNNELING INTERFACE



CROSS PASSAGES #1	MILESTONES	CN 1252 Oct Finish	CN 1300 Requirement	Variance (CD)
CROSS PASSAGES #2	YBM HEADWALLS	20-Sep-13	31-Jul-13	-51
CROSS PASSAGES #3	UMS HEADWALLS	8-Nov-13	14-Sep-13	-55
CROSS PASSAGES #4	CTS TUNNEL INTERFACE COMPLETE (CP 1&2), 1252 MS 1	9-Jul-14	9-Sep-14	62
CROSS PASSAGES #5	UMS TUNNEL INTERFACE COMPLETE (CP 3&4 UMS)	29-Aug-14	26-Feb-15	181
	YBM TUNNEL INTERFACE COMPLETE	30-Sep-14	26-Feb-15	149
	TUNNEL PORTAL COMPLETE	8-Jun-15	24-Sep-15	108



This Letter is to authorize Tutor Perini to proceed with the waterline work in Washington Street and Stockton Street area.

The scope of work is as follows on drawing WD-202:

1. Delete installation of the new 8" dia. DIP from CTL 103+33+\_ to approximately 10+25. Install a gate valve and restrained cap on this line and provide a thrust block as required. Any offset to this line can be done when the 8" line is installed over the completed station roof, a year or so down the line.
2. Pothole the existing connection of the 12" going up Washington St. to the 6" (now 8") which runs on the West side of Stockton. If it is possible to use part or all of this to provide the cross connect, this will become the cross connect, and delete the planned cross connect at CTL 103+13, 103-07+- 20'+-rt. Install connections needed to complete the cross-connect ensuring it will clear slurry wall.
3. If it is determined that the existing cross-connect cannot be utilized, then excavate for installation of the cross-connect similar to shown at CTL 103+13, 103-07+- 20'+-rt. Install new section of 12" line to approximately CTL 103+07, and remove the old cross-connect tee from the 6 (now 8") line. If a new cross-connect is installed, CDD will install a gate valve in it at the time of installation.
4. Delete installation of offsets on 12" line, and install a 12" gate valve and restrained cap and thrust block as required on the 12" line to the west. No offset are required until the 12" line is installed over the completed station roof, a year or so down the line.

The scope of work is as follows on drawing WD-206:

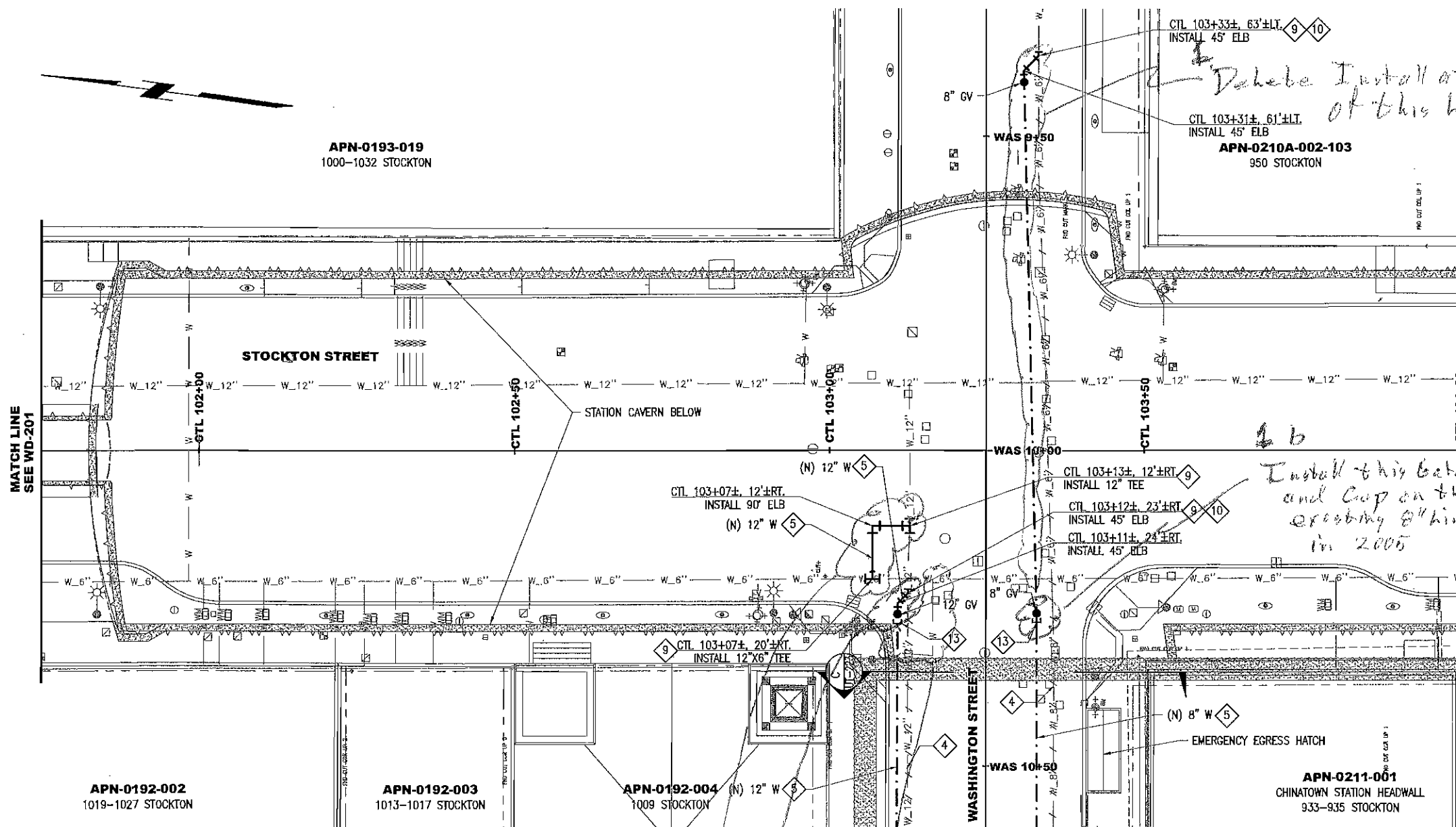
- A. Delete installation of offsets on 8" line WAS 11+14+-, just install the gate valve and cap with thrust block. Install offsets as needed when the 8" line is installed over the completed station roof, a year or so down the line.
- B. Delete installation of offsets on 12" line WAS 11+13+-, just install the gate valve and cap with thrust block. Install offsets as needed when the 8" line is installed over the completed station roof, a year or so down the line.
- C. CDD will install a 8" gate valve in it at the time of installation.

The scope of work is as follows on drawing WD-001:

- Install 8" temporary bypass from Stockton Street 8" line (Confirm) East of the station work to Washington St. 8" line (Confirm) West of the station work.

NOTES:

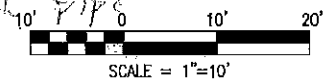
- R/S (E) LPFH. CONTRACTOR SHALL COORDINATE AND EXCAVATE SIDEWALK AT THE HYDRANT TO THE EXTENT NECESSARY FOR SFDD TO REMOVE THE FIRE HYDRANT AND BREAKAWAY RISER. SEE WD-001 GENERAL NOTE 17.
- R/S (E) WM BY SFWD. R/C (E) WM BOX, BACKFILL & REPLACE PAVING PER SFDPW REQUIREMENTS.
- R/C (E) WATER PIPE. SEE DRAWING NO. WD-001, GENERAL NOTE 19.
- ABANDON (E) WATER PIPE, SEE DRAWING NO. WD-001 GENERAL NOTE 15 AND 16.
- (N) WATER MAIN. SEE DRAWING NO. WD-001, GENERAL NOTE 19.
- (N) BUILDING SERVICE, SEE DRAWING NO. WD-001, GENERAL NOTE 8A.
- (N) 6" LPFH ASSEMBLY, SEE DRAWING NO. WD-001, GENERAL NOTE 8B.
- RECONNECT TO (E) WATER LATERAL BY SFWD.
- CONNECT TO (E) WATER MAIN BY SFWD.
- DISCONNECT AND TERMINATION OF (E) WATER LINE BY SFWD.
- (N) WATER METER, SEE DRAWING NO. WD-001 GENERAL NOTE 8A.
- PROVIDE PROTECTION BARRIER FROM CTL 101+00 TO CTL 101+49, SEE DETAIL 2/WD-004.
- TEMPORARY CAP, SEE DRAWING WD-001 GENERAL NOTE 19.



3 Delete it  
Install it

4. Install gate cap only

2 Investigate if this cross-connect can be used or modified to connect to 12" line - if it can, connect it and delete installation of New Cross-Connect - if it cannot be used, remove tee & replace with 10" pipe



\\sv6nas003\m544\FinalDesign\DRAWINGS\CS155-2\1254\SHEET FILES\02\_CIVIL\09\_WATER DISTRIBUTION\12540209WD202.dwg  
 tboyan Tue Dec 13, 2011 10:49 am WD-202

DESIGNED	D. ZUURING
DRAWN	F. BAYANI
CHECKED	M. CHAN
REVIEWED	D. HENRI
RECOMMENDED	A. READ
APPROVED	R. EDWARDS
DATE	12/14/2011

central subway design group

**TELAMON ENGINEERING CONSULTANTS INC.**

REGISTERED PROFESSIONAL ENGINEER  
 CIVIL  
 No. 0143342  
 Exp. 6-30-2013  
 STATE OF CALIFORNIA

CITY AND COUNTY OF SAN FRANCISCO  
**MUNICIPAL TRANSPORTATION AGENCY**

APPROVED

*[Signature]*  
 FOR DIRECTOR OF TRANSPORTATION

THIRD STREET LIGHT RAIL PROGRAM  
 PHASE 2 - CENTRAL SUBWAY  
 CHINATOWN STATION

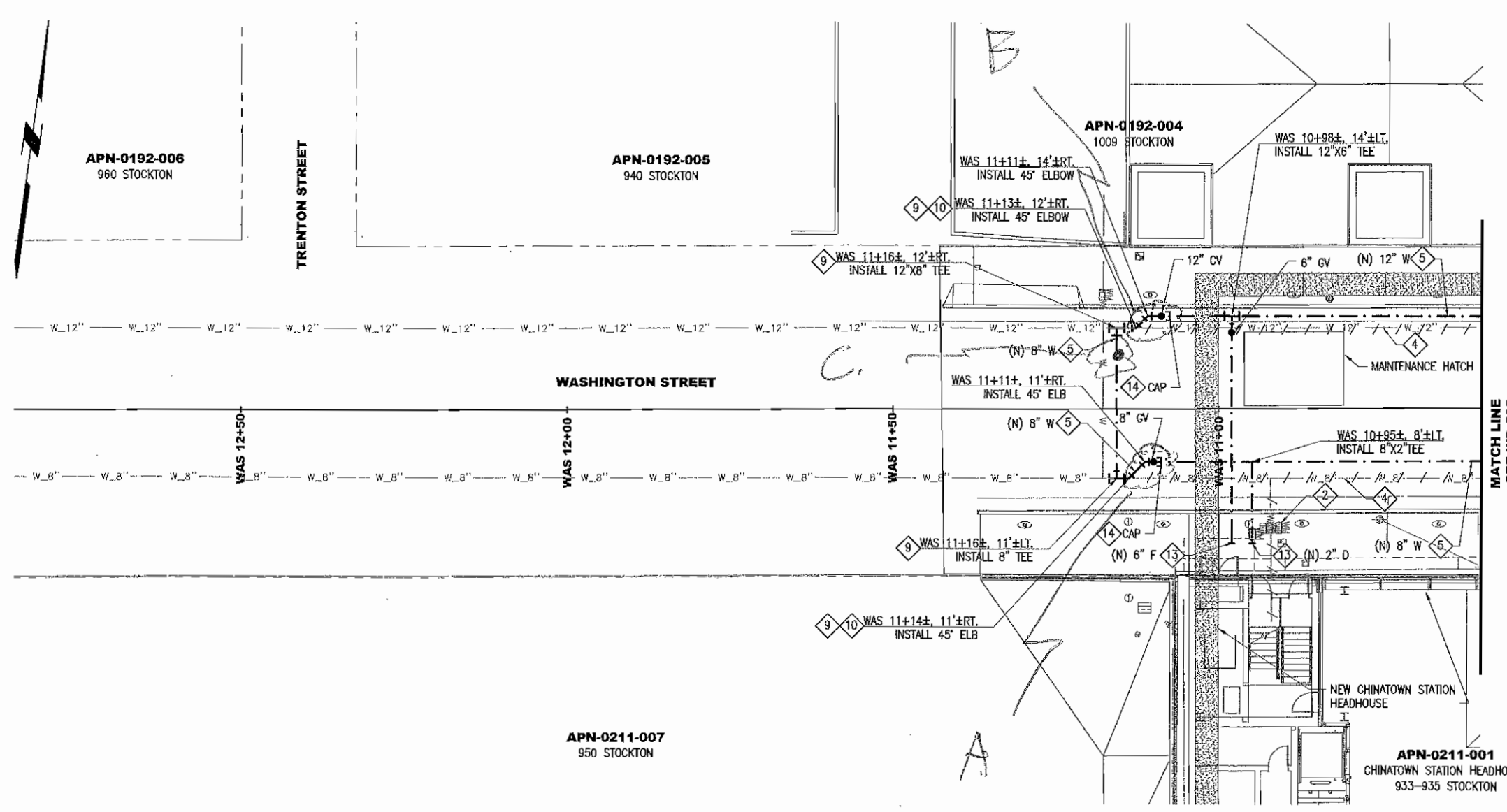
**WATER DISTRIBUTION**  
 CTL 101+75 TO 104+00

CONTRACT NO. 1254R  
 SFMTA CONTROL NO. CL-19556  
 DRAWING NO. WD-202  
 SHEET NO. 58

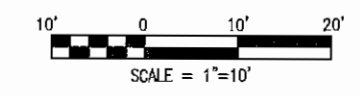
REVISION 0

**CONFORMED**





- NOTES:**
- R/S (E) LPFH. CONTRACTOR SHALL COORDINATE AND EXCAVATE SIDEWALK AT THE HYDRANT TO THE EXTENT NECESSARY FOR SFWD TO REMOVE THE FIRE HYDRANT AND BREAKAWAY RISER. SEE WD-001 GENERAL NOTE 17.
  - R/S (E) WM BY SFWD. R/C (E) WM BOX, BACKFILL & REPLACE PAVING PER SFDPW REQUIREMENTS.
  - R/C (E) WATER PIPE. SEE DRAWING NO. WD-001, GENERAL NOTE 19.
  - ABANDON (E) WATER PIPE, SEE DRAWING NO. WD-001 GENERAL NOTE 15 AND 16.
  - (N) WATER MAIN. SEE DRAWING NO. WD-001, GENERAL NOTE 19.
  - (N) BUILDING SERVICE, SEE DRAWING NO. WD-001, GENERAL NOTE BA.
  - (N) 6" LPFH ASSEMBLY, SEE DRAWING NO. WD-001, GENERAL NOTE BB.
  - RECONNECT TO (E) WATER LATERAL BY SFWD.
  - CONNECT TO (E) WATER MAIN BY SFWD.
  - DISCONNECT AND TERMINATION OF (E) WATER LINE BY SFWD.
  - (N) WATER METER, SEE DRAWING NO. WD-001 GENERAL NOTE BA.
  - PROVIDE PROTECTION BARRIER FROM CTL 101+00 TO CTL 101+49, SEE DETAIL 2/WD-004.
  - (N) BUILDING SERVICE, SEE DRAWING NO. WD-001 GENERAL NOTE BF FOR LATERAL INSTALLATION AND BUILDING DRAWING REFERENCE.
  - TEMPORARY CAP, SEE DRAWING WD-001 GENERAL NOTE 19.



\\sv6nas03\m544\1\FinalDesign\DRAWINGS\CS155-2\1254\SHEET FILES\02\_CIVIL\09\_WATER DISTRIBUTION\12540209WD206.dwg  
 fboyani Fri Dec 02, 2011 - 5:59 pm WD-206

DATE	DESCRIPTION	REV. NO.	BY	CHECKED	APPROVED
06/20/2012	ISSUED FOR 1254R	0			
12/14/2011	ISSUED FOR BID	0			

central subway design group

**TELAMON ENGINEERING CONSULTANTS INC.**

DESIGNED: D. ZUHRING  
 DRAWN: F. BAYANI  
 CHECKED: M. CHAN  
 REVIEWED: D. HENAMI  
 RECOMMENDED: A. READ  
 APPROVED: R. EDWARDS  
 DATE: 12/14/2011



CITY AND COUNTY OF SAN FRANCISCO  
**MUNICIPAL TRANSPORTATION AGENCY**

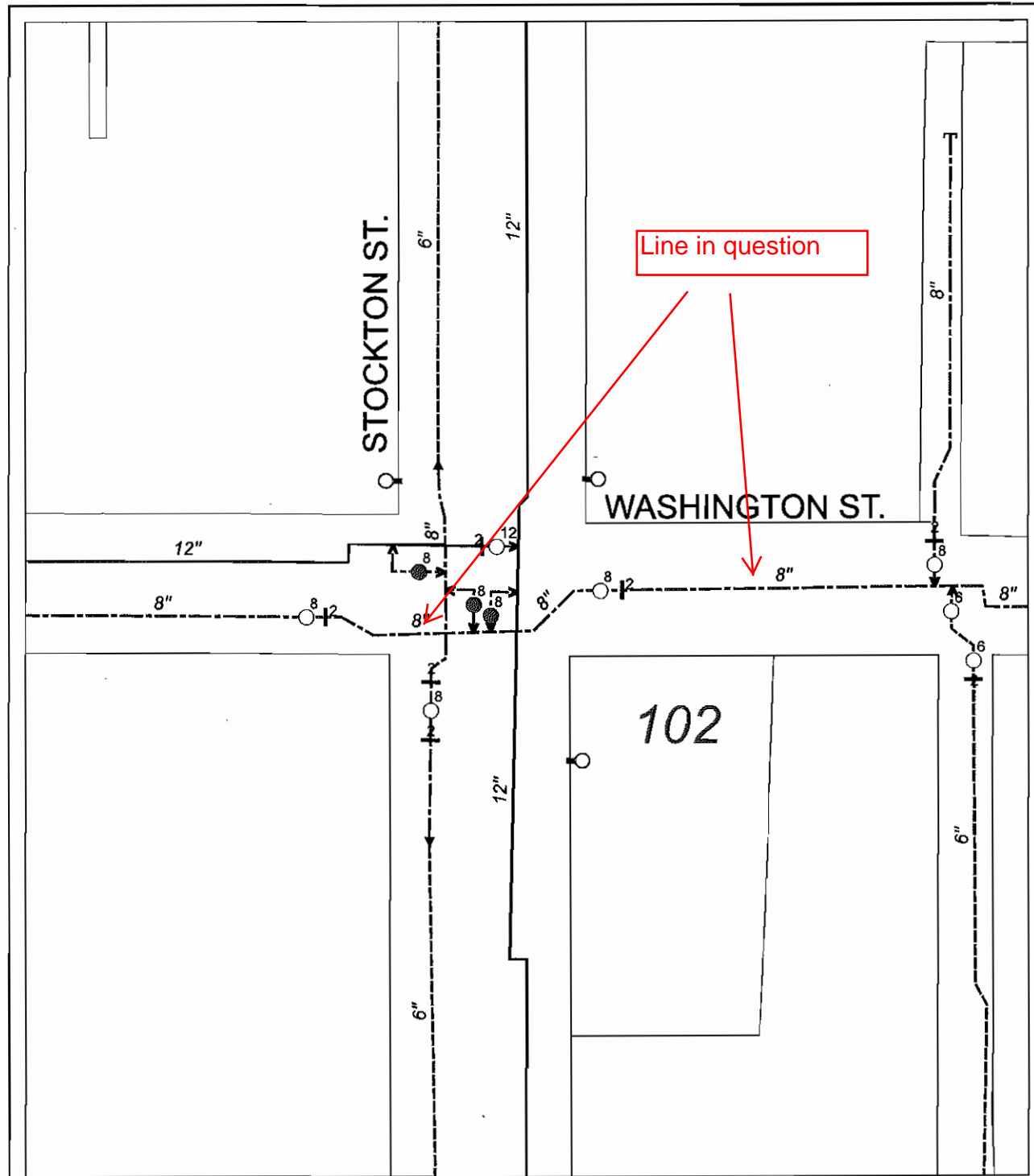
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 FOR DIRECTOR OF TRANSPORTATION

THIRD STREET LIGHT RAIL PROGRAM  
 PHASE 2 - CENTRAL SUBWAY  
 CHINATOWN STATION

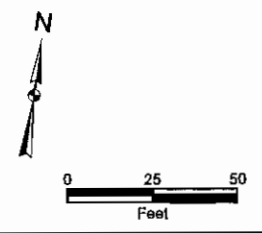
**WATER DISTRIBUTION  
 WAS 10+60 TO 12+85**

CONTRACT NO. <b>1254R</b>	
SFMTA CONTROL NO. <b>CL-19557</b>	
DRAWING NO. <b>WD-206</b>	REVISION <b>0</b>
SHEET NO. <b>59</b>	

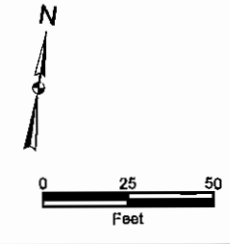
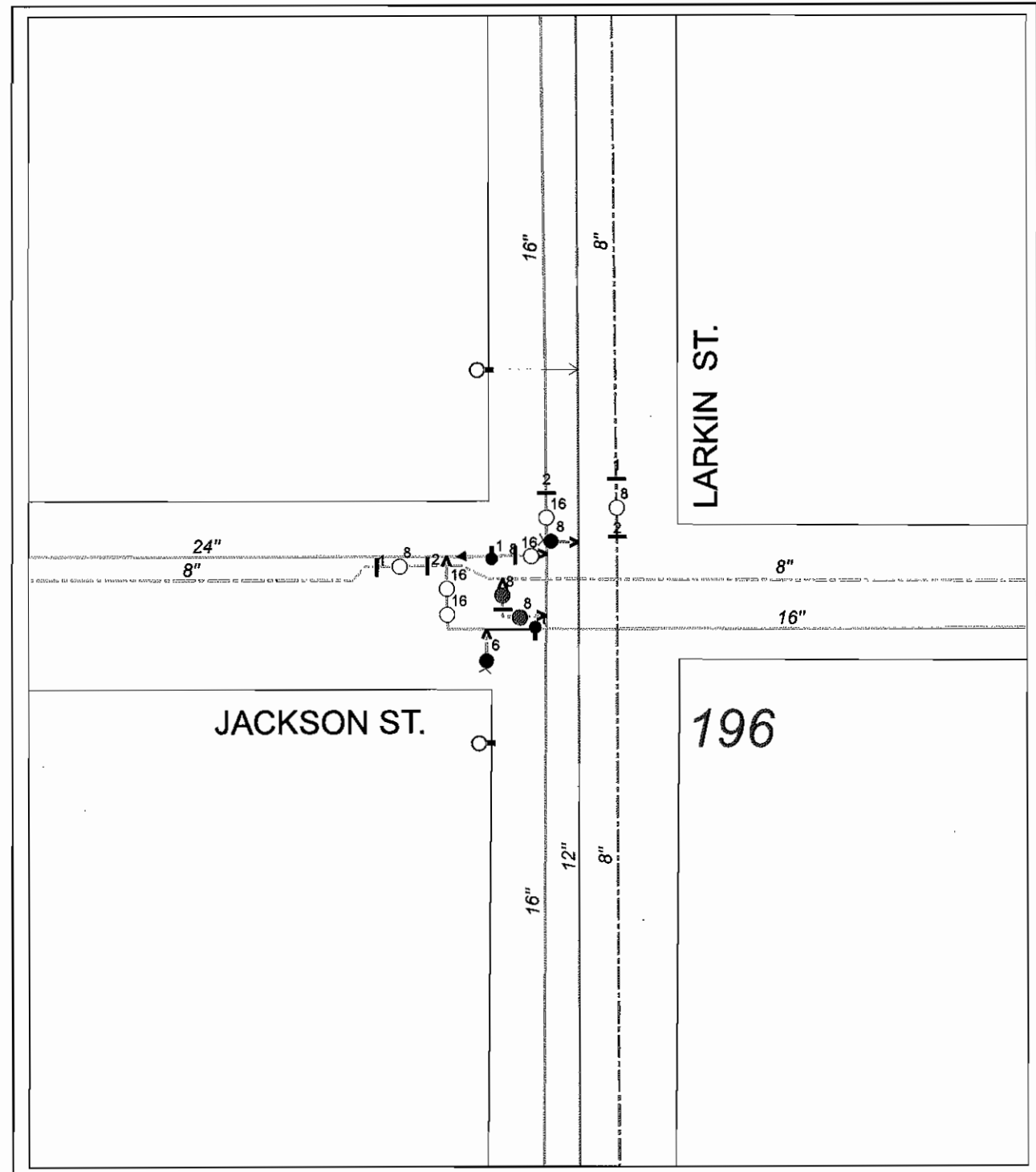
**CONFORMED**



Date: 09/01/2011 Time: 10:00:00 AM



**Detailed Page - A-1174**  
Gatebook Page - 7



**Detailed Page - A-1065**  
Gatebook Page - 8

Employee Name & Number: READ, SUSAN A (AILEEN), 001510 \_\_\_\_\_

Organization : 9338 GT WEST

Approval Status : APPROVED, 25-OCT-2013 11:44 AM

Approved By : FONG, MITCHELL L \_\_\_\_\_

Comments :

Type Of Entry	Project Number	Project Name	Task Number	Task name	Type	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Total
						Oct 19	Oct 20	Oct 21	Oct 22	Oct 23	Oct 24	Oct 25	
T	13286DP2	CENTRAL SUBWAY PROJECT DP2	16.20.H	Design Team SupportH	REG				4.00	4.00		2.00	10.00
T	13286DP2	CENTRAL SUBWAY PROJECT DP2	16.30.C4.H	Shop Drawings Rev-HO	REG							1.00	1.00
T	13286DP2	CENTRAL SUBWAY PROJECT DP2	16.30.M.H	Projct Mgmt&Adm-H	REG				2.00	2.00			4.00
T	13286DP2	CENTRAL SUBWAY PROJECT DP2	16.30.RFI.H	RFI Response-HO	REG						1.00		1.00
T	201304604	BART ON CALL GEC	5571 1.PS	5571 PRE-SUBMITTAL	REG			1.50	1.50		3.00		6.00
T	BUSINESS UNIT MGMT	BUSINESS UNIT MGMT	5571	5571 SAN FRANCISCO	REG			4.50		1.00	4.00	3.00	12.50
T	CRM	CUSTOMER RELATIONSHIP MGMT	RR.5571	RAIL 5571 SAN FRAN	REG			2.00	0.50				2.50
T	PMADC_Sub	PMADC Subcommittee	CY13_4745	CY13_4745	REG					1.00		2.00	3.00
Reg Hrs.						0.00	0.00	8.00	8.00	8.00	8.00	8.00	40.00
OT Hrs.						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total						0.00	0.00	8.00	8.00	8.00	8.00	8.00	40.00

16.20.H - Coordination with SFMTA, PMCM and CSDG staff (including conversations re alternate locations and possible revisions to order of work for PB-1 and TB-1 at YBM; follow-up re Chinatown Plaza; telecon re RFI No. 00093); maintenance of RFI and Submittal Logs; review of RFIs responded to by PMCM as they relate to stations  
 16.30.M.H - timesheet administration, review of September 2013 invoice, follow-up with subconsultants re DSDC services and 2010 OH reconciliation  
 16.30.RFI.H - Response to RFI No. 00064

16.20.H - OK  
 16.30.C4.H - ?  
 16.30.M.H - OK  
 16.30.RFI.H - track  
 under 16.30-1



Employee Name & Number: DOAN, MARY M, 006619 \_\_\_\_\_

Organization : 9623 WEST PAS

Approval Status : APPROVED, 24-OCT-2013 04:37 PM

Approved By : MARCELL, Ms. JULIE A \_\_\_\_\_

Comments :

Type Of Entry	Project Number	Project Name	Task Number	Task name	Type	Fri PM	Sat	Sun	Mon	Tue	Wed	Thu	Fri AM	Total
						Oct 18	Oct 19	Oct 20	Oct 21	Oct 22	Oct 23	Oct 24	Oct 25	
T	13228B	SVRT PROJECT	WA01-001	Mgmt & Admin WA 01	REG				1.00					1.00
T	13285DP1	CENTRAL SUBWAY PROJECT-DP1	DP1.16.10.PMA.HO	DSDC PMA-HO	REG				1.00	0.50			0.50	2.00
T	13285DP1	CENTRAL SUBWAY PROJECT-DP1	DP1.16.30.RS.H	Retrieval Shaft DSDC	REG					0.50		0.50		1.00
T	13286DP2	CENTRAL SUBWAY PROJECT DP2	16.30.M.H	Projct Mgmt&Adm-H	REG	1.00			2.00	1.00	2.00	1.00	1.00	8.00
T	13323A	SF DPW ON-CALL #179863	1.0	Project Adm&MgmTO1	REG							0.50		0.50
T	13323A	SF DPW ON-CALL #179863	4.1	Project Adm&MgmTO4	REG							0.50		0.50
T	13338A	Port of SF Pier 1 PSC4120	02-01	CSO 02 Proj Mgmt&Adm	REG				0.50		1.00	1.00		2.50
T	13338A	Port of SF Pier 1 PSC4120	03-01	CSO 03 Proj Mgmt&Adm	REG				0.50		1.00	1.00		2.50
T	13338A	Port of SF Pier 1 PSC4120	04-01	CSO 04 Proj Mgmt&Adm	REG				0.50		1.00	0.50		2.00
T	FINANCE US	FINANCE US	9626	9626 WEST FINANCE	REG		1.00						1.00	2.00
T	PROJECT ADMINISTRATIO N US	PROJECT ADMINISTRATION US	9623	9623 WEST PAS	REG	2.00			3.50	3.00	4.00	2.00	1.50	16.00
T	PTO	PTO	VACATION	VACATION	REG							2.00		2.00
Reg Hrs.						3.00	1.00	0.00	9.00	5.00	9.00	9.00	4.00	40.00
OT Hrs.						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total						3.00	1.00	0.00	9.00	5.00	9.00	9.00	4.00	40.00

16.30.M.H - timesheet administration; preparation of September invoice; revisions to OH reconciliation invoice





Task	Sum of Revised Budget	Sum of Authorized Amount	Sum of Cost to Date (10/25/2013)	Sum of Budget Remaining (Revised Budget - Actual)	Sum of Authorized Budget Remaining
01 - Project Management and Control	\$2,912,864	\$ 2,912,864	\$2,893,744	\$19,120	\$19,120
02 - Design and Project Integration	\$844,917	\$ 844,917	\$794,508	\$50,409	\$50,409
02.50 Coordination with Art for Transit	\$244,192	\$ 244,192	\$193,782	\$50,410	\$50,410
03 - Geotechnical Investigations	\$2,055,595	\$ 2,055,595	\$2,055,595	(\$1)	(\$1)
04 - Surveying and Right of Way	\$8,138	\$ 8,138	\$8,138	(\$0)	(\$0)
05 - Traffic Engineering	\$28,513	\$ 28,513	\$28,513	(\$0)	(\$0)
06 - Utility Design Coordination	\$230,970	\$ 230,970	\$230,970	\$0	\$0
07 - Drainage	\$16,264	\$ 16,264	\$16,264	\$0	\$0
08 - Permits	\$219,486	\$ 219,486	\$219,486	(\$0)	(\$0)
09 - Contract Specifications	\$429,143	\$ 429,143	\$429,143	(\$0)	(\$0)
10 - Cost Estimate and Scheduling	\$456,851	\$ 456,851	\$456,851	\$0	\$0
11 - Quality Control	\$265,530	\$ 265,530	\$265,530	\$0	\$0
12 - Drawings and Documents	\$18,330,322	\$ 18,330,322	\$18,330,324	(\$1)	(\$1)
13 - Construction Packaging and Schedules	\$10,811	\$ 10,811	\$10,811	\$0	\$0
14 - Outreach Support	\$220,543	\$ 220,543	\$220,543	\$0	\$0
15 - Bid Support Services	\$1,273,623	\$ 582,139	\$597,046	\$676,577	(\$14,907)
16 - DSDC (Contract 1252)	\$208,069	\$ 208,069	\$141,567	\$66,502	\$66,502
16.30 Shop Drawing Reviews and RFI (Headwalls)	\$65,704	\$ 65,704	\$67,113	(\$1,409)	(\$1,409)
16.30.DSC-JG18 Shop Drawing Reviews and RFI (Headwalls)	\$6,000	\$ 6,000	\$1,890	\$4,110	\$4,110
16.40 Field Visits/Meetings (Headwalls)	\$4,296	\$ 4,296	\$4,296	(\$0)	(\$0)
16.RSCG Retrieval Shaft Compensation Grouting Design	\$132,069	\$ 132,069	\$68,267	\$63,802	\$63,802
16.RSCG.1 RSCG Work Plan	\$68,708	\$ 68,708	\$68,267	\$441	\$441
16.RSCG.2 RSCG Design to Address Observed Settlements	\$29,364	\$ 29,364	\$0	\$29,364	\$29,364
16.RSCG.3 RSCG Field Representation	\$33,997	\$ 33,997	\$0	\$33,997	\$33,997
16 - DSDC (Contract 1300)	\$9,140,044	\$ 507,800	\$67,734	\$9,072,310	\$440,066
16.10 Construction Support Strategic Execution Plan	\$21,506	\$ -	\$0	\$21,506	\$0
16.20 Design Team Support	\$2,950,423	\$ 93,600	\$29,614	\$2,920,809	\$63,986
16.30 Shop Drawing Reviews and RFI (CN 1300)	\$3,509,172	\$ 300,000	\$10,129	\$3,499,043	\$289,871
16.30.OTH Other (CN 1300)	\$325,147	\$ 30,000	\$1,890	\$323,257	\$28,110
16.30.RFI Requests for Information (CN 1300)	\$581,500	\$ 30,000	\$4,953	\$576,547	\$25,047
16.30.SUB Submittals (CN 1300)	\$2,602,525	\$ 240,000	\$3,285	\$2,599,240	\$236,715
16.30.M Construction Phase Project Mmgt and Admin	\$1,326,000	\$ 57,200	\$26,415	\$1,299,585	\$30,785
16.40 Field Visits/Meetings (CN 1300)	\$460,637	\$ 19,500	\$1,575	\$459,062	\$17,925
16.50 Change Proposals / Value Engineering	\$214,972	\$ 37,500	\$0	\$214,972	\$37,500
16.60 Conformed Contract Documents	\$378,993	\$ -	\$0	\$378,993	\$0
16.70 O&M Manuals	\$278,341	\$ -	\$0	\$278,341	\$0
16.80 Warranty Services	\$0	\$ -	\$0	\$0	\$0
Grand Total	\$36,651,683	\$ 27,327,955	\$26,766,766	\$9,884,917	\$561,189

**CENTRAL SUBWAY PROJECT**  
**Project Trend/Change Control Log**

**Trend Log**

Total Cost Estimate and Allocated Contingencies									
Item #	Date Initiated	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number
					Approval Action	Approval Date			
<b>Contract 1250 - Utilities Relocation #1 (Portal &amp; MOS)</b>									
1250-0001	04/15/10	081-0001	Delete Option MF-OPT1 "Fire Protection Sprinkler System"	1	N/A		(50,000)	Cleared City Attorney's Office; to Shahnam for execution. [In "Current Forecast" - Sep2010 Cost Report.] <b>COMPLETE, NO FURTHER ACTION; CMOD #1</b>	CMOD #1 Approved
1250-0002	05/07/10	081-0002	Changes to Sewer on 4th between Howard and Folsom	2	CMB-0001	Agree	07/12/10	+107,174 [In "Current Forecast" - Sep2010 Cost Report.] No reimbursement from SFPUC Sewer. COR #2-\$34,135; COR #5-\$73,039 <b>COMPLETE, NO FURTHER ACTION; CMOD #2</b>	CMOD #2 Approved
1250-0003	05/28/10	081-0003	Quantity Adjustment for JT-6 and JT-7	4	CMB-0002	Agree	08/04/10	+192,420 In April 2010 pay app, JT-6 bid qty exceeded by 344% (230 vs. 1021) and JT-7 bid qty exceeded by 112% (500 vs. 1060) [In "Current Forecast" - Sep2010 Cost Report.] <b>COMPLETE, NO FURTHER ACTION; CMOD #3</b>	CMOD #3 Approved
1250-0004	07/02/10	081-0004	Demolition of existing brick and concrete footing on 4th between Howard and Folsom	2	CMB-0003	Agree	07/12/10	+170,000 Unforeseen bricks and concrete footing discovered on east side of 4th Street between Folsom and Howard. [In "Current Forecast" - Sep2010 Cost Report.] COR #3-RFI #76 <b>COMPLETE, NO FURTHER ACTION; CMOD #4</b>	CMOD #4 Approved
1250-0005	04/20/10	081-0005	Modify AWSS at 4th/Bryant and 4th/Harrison	3	CMB-0004	Agree	08/04/10	+586,000 At 4th/Bryant, AWSS conflict with new 48" sewer and AT&T duct bank. At 4th/Harrison, AWSS conflict with 18" sewer. [In "Current Forecast" - Sep2010 Cost Report.] No reimbursement from SFPUC AWSS. PCC #2: RFI #s 34, 49 & 51 <b>COMPLETE, NO FURTHER ACTION; CMOD #5</b>	CMOD #5 Approved
1250-0006	04/29/10	081-0006	Install four additional piles and reinforce existing foundation at 401 4th Street	2	CMB-0005	Agree	08/25/10	+130,000 Existing foundation was discovered to be part brick and part concrete, which is different from plan. Also, foundation was unstable and required additional reinforcement. Refer to RFIs #85R1, 88.1, 100, 101, 102 <b>COMPLETE, NO FURTHER ACTION; CMOD #6</b>	CMOD #6 Approved
1250-0007	10/06/10	081-0007	Additional work to install 48" sewer due to various utility conflicts at 4th/Bryant	2	N/A			+32,964 48" RCP sewer in conflict with existing AT&T duct bank that needs to remain in service until new joint trench is installed to enable switchover. This conflict forced contractor into a more expensive means to install sewer. Also, 48" RCP sewer in conflict with existing 30" force main and 24" steel pipes. No reimbursement from SFPUC Sewer. <b>COMPLETE, NO FURTHER ACTION; CMOD #9</b>	CMOD #9 Approved
1250-0008	10/06/10	081-0008	Relocate TPC vault on 4th Street between Howard and Folsom	6	N/A			+19,500 Contractor uncovered existing TPC conduits on top of AT&T duct bank on 4th near Howard, a differing site condition. An AT&T intercept vault is to be installed, however, TPC conduits can not reside inside AT&T intercept vault. Joint Trench utilities participation cost TBD. Executed on 10/14/2010. Refer to RFI #62 (\$19,500) Expected Reimbursement from TPC. RE has provided documentation of notification to TPC, July-August '10. See final 1250 Form B actual costs <b>COMPLETE, NO FURTHER ACTION; CMOD #8</b>	CMOD #8 Approved
1250-0009	10/06/10	081-0009	Install additional sewer and provide temporary connections at 4th/Stillman	3	N/A			+47,000 Location of existing sewer to be intercepted differs from where it's shown in the plan, hence additional sewer to be installed. Also, due to optional sewer MH not buildable until (E) AT&T DB is removed, additional sewer is necessary to tie into (E) main as interim. New sewer is supposed to tie into optional MH. No reimbursement from SFPUC Sewer. RFI #91 <b>COMPLETE, NO FURTHER ACTION; CMOD #7</b>	CMOD #7 Approved

- 1 - Owner Directed Change in Scope
- 2 - Unforeseen Conditions
- 3 - Errors and Omissions
- 4 - Quantity Variation
- 5 - Value Engineering
- 6 - Private Utilities
- 7 - Other

**CENTRAL SUBWAY PROJECT**  
**Project Trend/Change Control Log**

Item #	Date Initiated	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number	
					Approval Action	Approval Date				Actual/Forecast
1250-0010	10/06/10	081-0010	Perform AT&T wye cast connection and chipping of existing duct bank at various locations	6	N/A			+48,181	AT&T was supposed to tie-in its own facility. However, AT&T's contractor, who is hired to install vaults, stated it is not in their scope of work. Refer to RFI #82.1. AT&T intercept vault at 4th/Harrison can not be installed at design location due to utility conflicts. AT&T vault to be shifted a few feet instead of vault being on top of existing duct bank. This will cause additional excavation, joint trench and modification to existing duct bank. Joint Trench utilities participation cost TBD. SFMTA and AT&T are negotiating with Contractor. (\$48,181) Expected Reimbursement from AT&T. RE has provided documentation of notification to AT&T, Sept-Oct '10. See final 1250 Form B actual costs. <b>COMPLETE, NO FURTHER ACTION; CMOD #10</b>	CMOD #10 Approved
1250-0011	10/06/10	081-0011	Remove existing piles and shoring at 801 Howard	2				-0-	This change order has been incorporated in CMOD #16 (Trend #30) <b>COMPLETE, NO FURTHER ACTION; CMOD #16</b>	CMOD #16 Approved
1250-0012	10/06/10	081-0012	Additional work related to AT&T facilities due to unforeseen conditions.	6	CMB-0047	Agree	08/03/11	-0-	This is the total of all force account work related to AT&T facility. SFMTA to seek reimbursement from AT&T through the Form B process. (\$67,798) Expected Reimbursement from AT&T. Cost captured in Trend #15 <b>COMPLETE, NO FURTHER ACTION; CMOD #20</b>	CMOD #20 Approved
1250-0013	10/06/10	081-0013	Additional work related to PG&E facilities due to unforeseen conditions.	6	CMB-0047	Agree	08/03/11	-0-	This is the total of all force account work related to PG&E facility. SFMTA to seek reimbursement from PG&E through the Form B process. (\$30,547) Expected Reimbursement from AT&T. Cost captured in Trend #15 <b>COMPLETE, NO FURTHER ACTION; CMOD #20</b>	CMOD #20 Approved
1250-0014	10/06/10	081-0014	Remove brick wall at sewer sta 152+94 (west side) on 4th between Howard and Folsom.	2				-0-	This change order has been incorporated in CMOD #16 (Trend #30) <b>COMPLETE, NO FURTHER ACTION; CMOD #16</b>	CMOD #16 Approved
1250-0015	10/06/10	081-0015	Archaeological Findings - Charges for rental of steel plates, triton barriers, shoring and labor for maintenance.	2				+784,771	Midden deposits were discovered on 4th Street between Howard and Folsom. Contractor stopped work. Contractor requesting payment for rental charges of trench plates, barricades, and shoring, and cost of maintenance. Total cost exposure is projected through end of November 2010. The \$290,703.00 is expected to be the final estimate for the rental of trench plates, barriers and shoring. \$597,000 Arch, \$179,000 DIFF, \$8,500 Traffic <b>COMPLETE, NO FURTHER ACTION; CMOD #20</b>	CMOD #20
1250-0016	10/06/10	081-0016	Additional AWSS modification at 4th/Harrison	1	CMB-0016	Agree	11/10/10	+156,418	New alignment is proposed by Design team. No reimbursement from SFPUC AWSS. COR #33 Supplemental <b>COMPLETE, NO FURTHER ACTION; CMOD #12</b>	CMOD #12 Approved
1250-0017	10/06/10	081-0017	Protection Work at PG&E Vault 1611	6				-0-	Expected Reimbursement from PG&E or work to be deferred \$6,400. RE has notified PG&E via email dated 10/29/10 that SFMTA expects full reimbursement for this work if implemented. Follow-up pending. <b>Work was not performed and will need to be addressed in a future contract.</b>	
1250-0018	10/06/10	081-0018	Demolition and Support Work at PG&E Vault 1611	6				-0-	Expected Reimbursement from PG&E or work to be deferred \$25,000. RE has notified PG&E via email dated 10/29/10 that SFMTA expects full reimbursement for this work if implemented. Follow-up pending. <b>Work was not performed and will need to be addressed in a future contract.</b>	
1250-0019	10/06/10	081-0019	Extended overhead delay claim due to Archaeological discoveries	2					Old Note: Potential delay claim if issue extends project duration. Amount is estimated at \$3,000.00 per day for 60 days (\$180K). New Note: By exercising all option work, additional 84 calendar days is added to the contract time. In addition, midden mitigation will start on 10/7/10. As a result, the potential for extended overhead cost is averted. <b>This trend has been superseded by Trend #37.</b> <b>COMPLETE, NO FURTHER ACTION</b>	
1250-0020	10/06/10	081-0020	Sewer modification under I-80 freeway at 2 locations	3				+39,062	Inverts of existing sewer where new sewer will tie into are found to be different than shown in plan and would create a reverse slope. Additional pipe and manhole are required to fix slope. Refer to RFI Nos. 2S01 and 147. No reimbursement from SFPUC Sewer. <b>COMPLETE, NO FURTHER ACTION; CMOD #11</b>	CMOD #11 Approved

- 1 - Owner Directed Change in Scope
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- 5 - Value Engineering
- 6 - Private Utilities
- 7 - Other

**CENTRAL SUBWAY PROJECT**  
**Project Trend/Change Control Log**

Item #	Date Initiated	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number	
					Approval Action	Approval Date				Actual/Forecast
1250-0021	10/06/10	081-0021	Install new AWSS lateral including hydrant at NW 4th/Harrison	2				Existing AWSS lateral at SW 4th/Harrison is in conflict with new 18" sewer. Instead of modifying the lateral to avoid the sewer, a new lateral at NW corner is a preferred solution. CM awaiting design revision from Design team. <b>Trend No. 21 is combined with Trend No. 22.</b>		
1250-0022	10/06/10	081-0022	Install additional 30 feet of DIP and new AWSS at 4th/Harrison	2	CMB-0026	Agree	01/12/11	+160,908	AWSS Point of connection on 4th Street was found to be cast iron instead of ductile iron as shown in DPW as-built. Due to this differing condition, additional length of pipe needs to be replaced and lead joint to be installed in order to install a ductile iron tee. Also, existing AWSS hydrant lateral is in conflict with new 18" sewer. The preferred solution was to install a new ductile iron lateral at a different location rather than installing vertical offsets on an existing cast iron lateral. <b>No reimbursement from SFPUC AWSS.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #15</b>	CMOD #15 Approved
1250-0023	10/06/10	081-0023	Steel plates and shoring standby for 2 months due to PG&E delay at Clementina	3				+24,981	Sewer at Clementina was delayed by 2 months due to PG&E vault conflict. PG&E will not pay cost of steel plates and shoring standby because PG&E drawings were sent to MTA during design phase and PG&E was not made aware of the conflict then. <b>COMPLETE, NO FURTHER ACTION; CMOD #13</b>	CMOD #13 Approved
1250-0024	10/06/10	081-0024	Utility support and work around for AT&T facilities	6	CMB-0048	Agree	08/24/11	+95,311	Contract specs specified AT&T to compensate contractor directly for workaround & support. AT&T refused to pay Synergy. Synergy considers AT&T's refusal as a changed condition to CN 1250 contract. <b>(\$95,311) Reimbursement from AT&amp;T. See Final 1250 Form B actual costs.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #19</b>	CMOD #19 Approved
1250-0025	10/06/10	081-0025	Utility support and work around for PG&E facilities	6					Contract specs specified PG&E to compensate contractor directly for workaround & support. PG&E negotiated \$100,000 directly with Synergy and will pay synergy directly as well.	
1250-0026	10/06/10	081-0026	Utility support and work around for SFWD facilities	3	CMB-0028	Agree	02/09/11	+66,510	Total cost known to date (10/5/10) of all SFWD support and workaround. See COR #12, 20, 32 and 35. Agreed amount is total of COR #12, 20 and 32. Total exposure is equal to agreed amount plus COR #35. <b>No reimbursement from SFWD.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #14</b>	CMOD #20 Approved
1250-0027	10/06/10	081-0027	Trucking and labor support for Archaeological mitigation	2				-0-	Synergy is asked to provide trucking for delivery of midden soil to Sonoma State University lab. Other support work includes traffic control, plating, loading and unloading of midden soil. The amount shown are charges up to end of November 2010 only. <b>Additional charges are expected which will be tracked as Trend No. 28.</b> <b>COMPLETE, NO FURTHER ACTION</b>	CMOD #20 Approved
1250-0028	12/08/10	081-0028	Trucking and labor support for Archaeological mitigation, Part II	2				-0-	Synergy is asked to provide trucking for delivery of midden soil to Sonoma State University lab. Other support work includes traffic control, plating, loading and unloading of midden soil. The amount shown are expected charges beyond November 2010. <b>COMPLETE, NO FURTHER ACTION</b>	CMOD #14 Approved
1250-0029	12/08/10	081-0029	Cost overrun for bid item UD-10 "Additional excavation and backfill"	4	CMB-0036	Agree	05/04/11	+112,500	Bid item UD-10 is to pay for excavation of connection hole and kill hole for SFWD line. Contract only included 200 cubic yard for this work. The size of excavations is dictated by field conditions and per the direction of SFWD inspector. RE's estimate of the total volume of dirt to be excavated is 630 cy. Examples of differing conditions encountered are: location of existing water line is different than where it's shown in the plan, existing waterline where shown in the plan to be connected to is inactive, differing condition at 5th/Clementina, connection holes and kill holes need to be expanded due to other utilities in the way. <b>COMPLETE, NO FURTHER ACTION; CMOD #17</b>	CMOD #17 Approved
1250-0030	12/08/10	081-0030	Supplement bid item GE-4 "Allowance for differing site conditions" related to the installation of publicly owned facilities only (sewer, water, AWSS, Joint trench)	4	CMB-0030	Agree	04/13/11	+235,595	This change order is to supplement GE-4 for cost overrun related to the installation of publicly owned infrastructure only. GE-4 cost overrun for installation of privately owned infrastructure is being tracked separately and a separate change order will be issued. <b>COMPLETE, NO FURTHER ACTION; CMOD #16</b>	CMOD #16 Approved

- 1 - Owner Directed Change in Scope
- 2 - Unforeseen Conditions
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**CENTRAL SUBWAY PROJECT**  
**Project Trend/Change Control Log**

Item #	Date Initiated	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number	
					Approval Action	Approval Date				Actual/Forecast
1250-0031	12/08/10	081-0031	Unused allowance for bid item GE-8 "Allowance for cast-in-place utility vaults"	4				-0	Bid item GE-8 is an allowance to pay contractor for designing and constructing cast-in-place manholes as required for installation of new systems. Only one CIP vault was installed. <b>Credit amount included in Trend #43</b>	
1250-0032	12/08/10	081-0032	Unused allowance for bid item UD-5 "Handling and disposal of Class I Hazardous Waste"	4				-0	Bid item UD-5 is an allowance to pay contractor for handling and disposal of Class I Hazardous Waste. No class I hazardous waste was off hauled away from the job site. Class I soil found under the I-80 freeway was put back in the trench as backfill. This bid item is expected to remain unused. However, contractor is claiming to recover "General Conditions" cost. <b>Credit amount included in Trend #43</b>	
1250-0033	12/08/10	081-0033	Unused allowance for bid item UD-6 "Transportation of Class I Hazardous Waste"	4				-0	Bid item UD-6 is an allowance to pay contractor for transporting of Class I Hazardous Waste. No class I hazardous waste was off hauled away from the job site. Class I soil found under the I-80 freeway was put back in the trench as backfill. This bid item is expected to remain unused. However, contractor is claiming to recover "General Conditions" cost. <b>Credit amount included in Trend #43</b>	
1250-0034	12/08/10	081-0034	Cost overrun for bid item TR-6 "Allowance for manual traffic control"	4	CMB-0037	Agree	05/04/11	+68,820	Bid item TR-6 is an allowance to pay for off-duty police officers and parking control officers. Contract allowance amount is \$50,000.00. Contract specs calls for police officers at 4 intersections (4th/Howard, 4th/Folsom, 4th/Harrison and 4th/Bryant). The average cost of 1 police officer is about \$800.00 per day (\$100.00 per hour). The \$50,000.00 allowance is only good for 60 days for 1 police officer. Hence, additional money was needed for traffic control support. Final amount paid police officers is \$87,500.00. Additional billings for parking control officers (from Al Herce of DPT) is forthcoming; RE estimated this bill to be about \$60,000.00. <b>COMPLETE, NO FURTHER ACTION; CMOD #18</b>	<b>CMOD #18 Approved</b>
1250-0035	12/08/10	081-0035	Premium cost for requesting contractor to accelerate work on 4th Street between Howard and Folsom	2				-0	Due to archaeological discoveries, many trenches remained open and the project would not have enough time to complete installation of underground utilities and restore the roadway before the Holiday season. Without accelerating the work, the project would have had to pay rentals for the barriers, street plates and shoring for the unfinished trenches that would have remained. By accelerating the work and DPT allowing the contractor to work through the beginning of the Holiday Moratorium, the project avoided these rental costs, which is estimated to be greater than the premium cost of accelerating the work. <b>COR Not submitted by Contractor</b> <b>CLOSED COMPLETE, NO FURTHER ACTION</b>	
1250-0036	12/08/10	081-0036	Rental/Maintenance costs for support of Archeological Trenches (Part 1 of 4) \$255,840; Support Work During Archeologist Mitigation Efforts (Part 2 of 4) \$199,741; Mobilization and Equipment Standby Costs (Part 3 of 4) \$67,728; Additional Overhead/Indirect Costs During Archeological Delay Period (Part 4 of 4) \$124,186	2	CMB-0041	Agree	07/13/11 02/15/12 07/25/12 09/12/12	-0	Due to archaeological discoveries, contractor may potentially claim for compensation for his equipment that were idle for the duration of the waiting period. RE's estimate is based on Caltrans rate for equipment standby for 5 months (May to October). RE has not received any change order request related to this item. RE to verify if his equipment were indeed idle during this time period. <b>2/15:</b> Rental/Maintenance Costs for Support (Part 2 of 4); <b>Add Work as Result of Archeological Shutdown (3 of 4). 07/25:</b> Revised mod - compensation for 1 of 3) Rental/Maintenance, 2 of 3) Add Work result of Archeological support, 3 of 3) Add OH/Indirect cost. RE to add Equipment Standby time to revised mod. <b>09/12:</b> RE to Prepare Modification <b>10/29:</b> CMod 20 is being issued as a unilaterally change, by the SFMTA that represents the SFMTA's estimate of a fair and reasonable final compensation amount for the additional work. <b>COMPLETE, NO FURTHER ACTION</b>	<b>CMOD #20 Approved</b>
1250-0037	12/08/10	081-0037	Compensation for loss of production, inefficiency and disruption of work due to archaeological discovery	2				-0	Due to archaeological discoveries, contractor may potentially claim for compensation for loss of production, inefficiency and disruption of work. RE has not received any change order request related to this item. Amount shown is a ROM cost by the RE. RE expects a COR from the contractor but change justification is very unlikely. Initial draft COR was \$898,453. RE has adjusted to \$661,559 removing the month of October and option work. This was then revised to 800,000. There has been no official submittal from Synergy. SFMTA has directed Synergy to submit anything related to the Architectural delays through the claims process. This will be carried in the Potential Claim Log. <b>COMPLETE, NO FURTHER ACTION</b>	

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1250-0038	03/18/11	081-0038	Project Delay due to archaeological discovery and PG&E Issues.	2				Due to archaeological discoveries compounded with PG&E's ability to perform service switchover to Olivet University and de-energize a live duct bank in conflict with 48" sewer. The project will realize an estimated 6 weeks of non-compensable delay to the substantial completion date of 4/6/11. 47 days estimated by RE. Contractor submitted COR 51 in the amount of \$1,144,776.74 on September 1st, 2011. RE responded requesting additional backup on October 19th, 2011. Subsequently, no additional information has been provided by the contractor, therefore, SFMTA has directed Synergy to submit anything related to the Architectural delays through the claims process. <b>This will be carried in the Potential Claim Log.</b>	
1250-0039	05/18/11	081-0039	Remove BP-4 (Waterproofing) from Contract	4				-0- Bid item was not used. Contractor requesting compensation to recover for General Conditions cost. Bid item amount total is \$40,000. <b>NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)</b>	N/A
1250-0040	05/18/11	081-0040	Delete SW-8 (24" Sewer) from Contract	4				-0- Bid item was not used. Contractor requesting compensation to recover for General Conditions cost. Bid item amount total is \$73,117. <b>NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)</b>	N/A
1250-0041	05/18/11	081-0041	Delete UD-5 and UD-6 (Class I Off haul and Handling) from Contract	4				-0- Bid items were not used. Contractor requesting compensation to recover for General Conditions cost. Bid items total amount is \$150,000. <b>NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)</b>	N/A
1250-0042	05/25/11	081-0042	Delete GE-6 (Hazmat) from Contract	4				-0- Bid item was not used. Contractor requesting compensation to recover for General Conditions cost. Bid item amount total is \$100,000. <b>NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)</b>	N/A
1250-9001	10/06/10	081-9001	<del>Utility Companies refusal to contribute to utility support costs and work around. (Voided. Recorded individually in TR-0059-TR-0061.)</del>	7					VOIDED
1250-0043	08/03/11	081-0043	Unit Rate Adjustment for Entire 1250 Bid Items	4			(333,904)	Pursuant to General Provision GP-11, COR is to adjust contract value to account for fix overhead costs for bid items not performed or where the bid item performed varied by 25%. <b>COMPLETE, NO FURTHER ACTION; CMOD #20</b>	CMOD #20 Approved
<b>Contract 1250 Totals</b>							+2,694,211	<b>Total Changes to the Contract in the amount of \$2,694,211, represents a \$740,834 OVER RUN of the original allocated contingency of \$1,953,377.</b>  <b>Changes that will be Utility Reimbursement credits through the Form B process in the amount of \$162,992 will offset some of this OVER RUN.</b>  <b>Final Contract Closeout Total \$11,968,150 will be reduce by \$2,275,419 Utility Reimbursement credits for a Final Program cost of \$9,692,731 for CN 1250</b>	
<b>Contract 1251 - Utilities Relocation #2 (UMS)</b>									
1251-0001	03/18/11	082-0001	Modify traffic control plan by establishing a single travel lane on Stockton St. in lieu of time-based multiple lane requirements as stipulated in contract plans TR-001 to 004.	7				-0- After discussions with the Contractor and the Union Square Business Improvement District (BID), the SFMTA determined that modifying the lane requirements along Stockton St. and implementing the alternate pedestrian walkway design would be beneficial to the execution of CN 1251 in the following ways: increased public safety, increase construction production, and create a more pleasing environment to the public and merchant. COR #1 <b>COMPLETE, NO FURTHER ACTION; CMOD #4</b>	CMOD #4 Approved

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1251-0002	03/18/11	082-0002	1&3	CMB-0035	Agree	04/20/11	+67,634	Pursuant to a commitment between Barney's and SFMTA, Emergency Stair #4 (to be constructed in CN 1253) must avoid existing subsidewalk basement. It was determined that moving the conflicting stairs would require the Joint Trench to be constructed in a manner that would enable it to span the excavated area. The addition of the invert slab allowed for the needed span thereby allowing for a relocation of Emergency Stair #4. COR #4; PCC #1 <b>COMPLETE, NO FURTHER ACTION; CMOD #2</b>	CMOD #2 Approved
1251-0003	03/18/11	082-0003	1	CMB-0029	Agree	02/23/11	+148,919	During future station construction, the design team anticipates that excavation related settlement may cause damage to the brick sewers along Geary and O'Farrell Streets. This proposed modification will replace the vulnerable brick sewer within the influence zone with HDPE pipe that will not be as susceptible to settlement-induced damage. COR #9, PCC #2 <b>COMPLETE, NO FURTHER ACTION; CMOD #1</b>	CMOD #1 Approved
1251-0004	04/06/11	082-0004	2	CMB-0031	Agree	04/13/11	+189,584	Due to various differing site conditions as described in RFIs 15, 37, 38 and 44, changes to the secondary enclosure wall are required. The existing footing were found to be inconsistent, i.e. missing footing in one area, footing sticks out beyond existing wall, overpour on existing footing, existing wall to be 6" into private property. Contract plan SR-302 shows a consistent footing. COR #8 <b>COMPLETE, NO FURTHER ACTION; CMOD #3</b>	CMOD #3 Approved
1251-0005	04/06/11	082-0005	6				+66,084	Contract plans AW-501.1, 501.2, 501.4 and 501.4 show the existing AWSS to be replaced in place. However, existing PG&E conduits were found to be on top and parallel to the existing AWSS resulting in extra work in working around and/or shifting the existing electrical conduits. Contract plans JT-308 and 309 showed the existing electrical and AWSS to be separate. Estimate includes \$77,892.53 (Synergy FA Request) + \$25,000 (first digging west side) + \$10,000 (temp backfill during moratorium) + \$15,000 (plate rental west side at \$5k per month). Estimate does not include Synergy's cost to sequence his work. Updated projected cost impact from \$50,000 to \$127,893 based on compilation of force accounts received. RE negotiating <b>COMPLETE, NO FURTHER ACTION</b>	CMOD #24 Approved
1251-0006	04/20/11	082-0006	1	CMB-0039	Agree	06/08/11	+398,624	Due to changes to the limits of the UMS Station on Stockton Street between Post and Geary, the original utility design has changed. COR #24, PCC #4 <b>COMPLETE, NO FURTHER ACTION; CMOD #5</b>	CMOD #5 Approved
1251-0007	04/20/11	082-0007	1	CMB-0049	Agree	08/24/11	(434,957)	Due to changes to the limits of the UMS Station on Ellis street, the original utility design has changed. PCC #5 <b>COMPLETE, NO FURTHER ACTION; CMOD #5</b>	CMOD #5 Approved
1251-0008	04/20/11	082-0008	1					Based on field verification, it was determined that underpinning is no longer needed. Contract bid item SR-9 is for a total amount of \$116,000 measured by LF. However, CM team does not anticipate to recover the full amount because contractor may be entitled to retain general conditions cost and some excavation cost that was already performed but encumbered in Bid Item SR-9. Agreed credit of (\$58,000) to be included in Trend #60. <b>CLOSED, NO FURTHER ACTION</b>	
1251-0009	04/20/11	082-0009	4	CMB-0038	Agree	06/01/11	+261,584	Contract bid item TR-7 for manual traffic control in the amount of \$120,000 is insufficient to control traffic for the duration of the contract. The \$120,000 allowance only equates to one police officer for a duration of 7.5 months. At a minimum, it is anticipated that one police officer or PCO will be needed at Stockton/Post for the entire contract duration of 16 months. Additionally, one PCO is required for each intersection at Geary/Stockton and O'Farrell/Stockton. <b>COMPLETE, NO FURTHER ACTION; CMOD #4</b>	CMOD #4 Approved

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1251-0010	05/25/11	082-0010	Accelerate Stockton east between O'Farrell and Market	1				+27,409	Contractor needed to rent additional excavators to work concurrently with the other block on Stockton between O'Farrell and Market. Amount: \$27,409; COR #25 <b>COMPLETE, NO FURTHER ACTION; CMOD #3</b>	CMOD #3 Approved
1251-0011	06/22/11	082-0011	Potholing at 4th/Howard for PUC sewer design	1					Request from MOS utility design team to pothole for the intercept of a 36" force main sewer and 96" sewer. PUC requested that this be done in order to ensure that we have accurate utility information to avoid costly change orders during construction. Per direction from CMB on January 18, 2012, this request is denied. COR #50, PCC #6 <b>CLOSED, NO FURTHER ACTION: Per direction from CMB on January 18, 2012, this request is denied.</b>	
1251-0012	07/06/11	082-0012	Additional cost to lower the AWSS at O'Farrell, east of Stockton, due to numerous existing utility conflicts.	2	CMB-0042, CMB-0050	Agree	8/3/2011, 9/21/2011	+278,351	The AWSS is in conflict with AT&T, PG&E and several other utilities and needs to be installed under all these utilities at about 11' deep (instead of 6' depth as noted in Plan AW-501.4, sheet note #5). During negotiations with the Contractor several items of work were found to be missing for the original cost estimates which increase the amount to \$278,351. RFI #76, COR #31 <b>COMPLETE, NO FURTHER ACTION; CMOD #6</b>	CMOD #6 Approved
1251-0013	07/06/11	082-0013	Accelerate start of construction in front of Macys West by trenchless construction method	7				-0-	Micropile installation on Stockton east between O'Farrell and Market has proven to be much slower than anticipated. To mitigate this potential delay, contractor requested to start construction in front of Macys West. COR 32 (CMB 0055 approval - see also Trend CN1251 #'s 04 & 10) <b>COMPLETE, NO FURTHER ACTION; CMOD #3 (No Cost Change)</b>	CMOD #3 Approved
1251-0014	07/21/11	082-0014	Increase in Bid Item WD-10, Allowance for Additional Excavation and Backfill.	3	CMB-0055	Agree	09/14/11	+191,779	This allowance is for the contractor to perform additional excavation, backfilling and restoration associated with the water tie-ins and capping for the distribution piping system. The contractor has performed two water service tie-ins at an average cost of \$14,000 per tie-in. The current number of tie-ins and capping is 35 separate points. This amounts to a total cost of \$490,000. The current contract allowance amount is \$100,000, therefore an additional \$390,000 will be needed to augment bid item. CMB made a partial approve of up to \$200K. The initial Contract Modification to supplement this allowance is in the amount of \$191,778.62. <b>RE's cost analysis of this trend confirms that the initial CMOD amount of \$191,778.62 is sufficient to cover for all water tie-in/capping work.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #9</b>	CMOD #9 Approved
1251-0015	08/03/11	082-0015	Additional traffic signal work at Post/Stockton	1				+17,530	Modification of the traffic signal at Post/Stockton is required to implement the detour shown in contract plan TR-010. There are no bid item to bill this work. COR #19 <b>COMPLETE, NO FURTHER ACTION; CMOD #8</b>	CMOD #8 Approved
1251-0016	08/03/11	082-0016	Additional traffic signal work at Sutter/Mason	2				+32,054	Existing conduits shown in Plan ET-101 differs from what is actually in the field. City's response to RFI 73 directs contractor to install new conduits and conductors. RFI #73; COR #33 <b>COMPLETE, NO FURTHER ACTION; CMOD #8</b>	CMOD #8 Approved
1251-0017	08/03/11	082-0017	Furnish and install AT&T Manhole 5830 on O'Farrell Street	6	CMB-0051	Agree	09/21/11	+25,000	AT&T was supposed to hire its own subcontractor to furnish and install all AT&T vaults in CN 1251. AT&T requested SFMTA for Synergy to perform this work as change order to CN 1251. <b>AT&amp;T agreed to reimburse SFMTA (\$25,000) through the Form B process.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #7</b>	CMOD #7 Approved
1251-0018	08/03/11	082-0018	Furnish and install AT&T Manhole 5829 on Geary Blvd.	6	CMB-0051	Agree	09/21/11	+31,000	AT&T was supposed to hire its own subcontractor to furnish and install all AT&T vaults in CN 1251. AT&T requested SFMTA for Synergy to perform this work as change order to CN 1251. <b>AT&amp;T agreed to reimburse SFMTA (\$31,000) through the Form B process.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #7</b>	CMOD #7 Approved

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1251-0019	08/03/11	082-0019	Extend joint trench and modify existing AT&T Manhole 403 on Ellis Street.	6	CMB-0057	Agree	10/26/11	+31,000	AT&T was supposed to furnish and install AT&T vault #5833 on Ellis Street. The current design was to intercept the existing AT&T conduit in the middle of Ellis Street. It was discovered that the existing AT&T conduit actually run adjacent to the southern curb line along Ellis Street. Therefore, AT&T requested SFMTA for Synergy to extend the joint trench approximately 200 feet to the West and tie into their existing AT&T vault #403. This work will also require Synergy to enlarge vault #403 to accept the additional conduit. . <b>This additional work for AT&amp;T will need to be reimbursed to SFMTA through the Form B process.</b> <b>Note: The agreed amount (\$31,000) is for enlargement of vault #403 only; the additional 200 feet of trench to be captured in the JT bid items. (See Trend 60)</b> COR #43 <b>COMPLETE, NO FURTHER ACTION; CMOD #11</b>	CMOD #11 Approved
1251-0020	09/07/11	082-0020	Change PG&E conduit material from PVC to GRS on west side of Stockton between Geary and Post	6	CMB-0058	Agree	11/02/11	+19,537	PG&E requested to use GRS material in lieu of PVC in areas where PG&E conduits were expected to be exposed and temporary supported during future UMS station construction. <b>PG&amp;E agreed to reimburse SFMTA (\$19,537) through the Form B process.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #21</b>	CMOD #21 Approved
1251-0021	09/07/11	082-0021	Revise PG&E service points and layout of primary lines at various locations, and delete Muni Vault 1850 A at Stockton/Ellis.	6					PG&E made changes to the locations of the service points and layout of some of the primary lines. In addition, due to changes to the limits of the UMS Station on Ellis Street, it was determined that Muni Vault 1850A is no longer needed. Cost for this trend is captured in Trend #31 or CMOD #12. <b>CLOSED; NO FURTHER ACTION. Cost for this trend is captured in Trend #31/CMOD #12</b>	
1251-0022	09/07/11	082-0022	Change OCS supports at SF Hilton Hotel on Mason Street from embedded eyebolts to poles w/foundations.	7					During the design phase the representatives of the Hilton Hotel agreed to and signed a license agreement with the SFMTA to allow embedded eyebolt supports. Hilton's Dir of Property Ops now wants to have OCS poles rather than the embedded building eyebolt supports. However, the OCS designer was able to revise the OCS design to eliminate the need for either eyebolts or poles in front of Hilton Hotel, resulting in a \$2,000 credit. <b>CLOSED; NO FURTHER ACTION. Applicable bid items to be adjusted accordingly, See Trend #60.</b>	
1251-0023	09/07/11	082-0023	4th Street & Folsom Trolley Bypass	1	CMB-0065	Agree	1/25/2012, 2/29/12	+405,440	in labor costs for OCS installation has not been negotiated yet. 1/25: Condition agreed upon verification material from Contractor to be procured is available. (Verified 02/01/12). 02/29: CMOD negotiated cost has been revised to incorporate original three items and the add'l OCS work on Folsom St. COR #52; PCC #7 <b>Updated projected cost impact from \$490,000 to \$405,440. CMOD #12 (Formally CMOD #15)</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #12</b>	CMOD #12 Approved
1251-0024	09/07/11	082-0024	Install a 5" slurry wall between the gas line and wet utilities if the separation is less than 3 feet	6	CMB-0059	Agree	11/16/2011, 05/02/12	+201,411	As a new requirement, PG&E had requested that a 5" slurry wall be installed between the gas line and wet utilities where the separation between the 2 utilities is less than 3 feet. <b>PG&amp;E agreed to reimburse SFMTA (\$201,410) through the Form B process.</b> COR #58 <b>COMPLETE, NO FURTHER ACTION; CMOD #19</b>	CMOD #19 Approved
1251-0025	09/07/11	082-0025	Additional PG&E conduit crossings at Geary and O'Farrell to minimize service interruption during future UMS Station construction	6					PG&E requested to install additional conduits crossing Stockton Street at Geary and O'Farrell to minimize service interruption during future UMS Station construction. PG&E agreed to reimburse SFMTA through the Form B process. This item is captured under applicable JT Bid Item, see Trend 60. <b>CLOSED; NO FURTHER ACTION. Item is captured under applicable JT Bid Item, See Trend 60.</b>	
1251-0026	09/14/11	082-0026	Install cantilever footing in lieu of regular OCS foundation at 2 locations on Mason Street between Geary and O'Farrell	2					The sub-basement in the public parking garage at O'Farrell/Mason extends beyond the property line up to the curb line. Therefore, regular foundations as per original design could not be installed. <b>CLOSED; NO FURTHER ACTION. Item is captured under applicable OCS Bid Item, See Trend 60.</b>	

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1251-0027	09/20/11	082-0027	Accelerate installation of AT&T facilities in order for AT&T to start cut-over sooner	1	CMB-0056	Agree	11/30/11	+281,435	Acceleration is necessary to avoid potential delay impacts to Central Subway follow-on contracts. COR #40 <b>COMPLETE, NO FURTHER ACTION; CMOD #10</b>	CMOD #10 Approved
1251-0028	10/18/11	082-0028	Furnish and install AT&T Manholes 5828 (Stockton), 5831 (Geary), 5832 (O'Farrell) and 113 (O'Farrell)	6	CMB-0057	Agree	10/26/11	+157,000	AT&T was supposed to hire its own subcontractor to furnish and install all AT&T vaults in CN 1251. AT&T requested SFMTA for Synergy to perform this work as change order to CN 1251. <b>AT&amp;T agreed to reimburse SFMTA (\$157,000) through the Form B process.</b> COR #43 <b>COMPLETE, NO FURTHER ACTION; CMOD #11</b>	CMOD #11 Approved
1251-0029	10/26/11	082-0029	Rebuild existing AT&T vault 133 at Post/Stockton and demolish existing AT&T vaults 403 (Ellis) and 113 (O'Farrell)	6					Vault 133 rebuild is superseded by Trend 40. Demolition of existing vaults 403 and 113 is superseded by Trend 43 <b>CLOSED; NO FURTHER ACTION. Demo of exiting vaults 403 and 113 are superseded by Trend 43. (See CMOD #23)</b>	
1251-0030	10/26/11	082-0030	Enlarge existing PG&E vault 873 at SW Geary/Stockton	6	CMB-0058	Agree	11/02/11	+46,366	PG&E asked SFMTA to enlarge vault 873. <b>PG&amp;E agreed to reimburse SFMTA (\$46,366) through the Form B process.</b> CMB approved a NTE amount of \$40K <b>COMPLETE, NO FURTHER ACTION; CMOD #21</b>	CMOD #21 Approved
1251-0031	10/26/11	082-0031	Additional PG&E conduits crossing O'Farrell on east side of Stockton (Task Order #32)	6	CMB-0058	Agree	11/02/11	+17,193	PG&E asked SFMTA to install additional conduits. <b>PG&amp;E agreed to reimburse SFMTA (\$17,193) through the Form B process.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #21</b>	CMOD #21 Approved
1251-0032	11/08/11	082-0032	Excavation and restoration cost for PG&E gas tie-in and kill holes.	6	CMB-0059	Agree	11/16/2011, 05/02/12	+92,292	PG&E gas drawings were not included in the bid package and there was no bid item to capture this work. Gas drawings was issued by PG&E in June 2011. <b>PG&amp;E agreed to reimburse SFMTA (\$92,292) through the Form B process.</b> Updated projected cost impact from \$202,400 to \$169,087 due to reduction in number of kill holes from 18 to 15. 04/11; Discovery of actual number of Kill/Tie locations being 26 instead of 15 will require confirmation from PG&E of the locations and the new cost of scope of work. <b>COMPLETE, NO FURTHER ACTION; CMOD #19</b>	CMOD #19 Approved
1251-0033	11/23/11	082-0033	Install secondary enclosure wall at One Stockton (Apple Store)	1	CMB-0068	Agree	03/07/12	+408,700	Additional enclosure wall is design initiated change. COR #47, PCC #9 Updated projected cost impact from \$262,484 to \$408,700. 39 Calendar Day Time Extension <b>COMPLETE, NO FURTHER ACTION; CMOD #13 (formally CMOD #14)</b>	CMOD #13 Approved
1251-0034	01/10/12	082-0034	Install temporary support as required to protect existing live utilities that are encroaching into the City right-of-way in front of 17-25 Stockton Street.	2	CMB-0069	Agree	04/04/12	+337,548	Existing utilities that are in active service were discovered in the City public right-of-way and are obstructing the performance of Contract work. Worst case scenario - "Not to Exceed" value) CM team will report actual amount value at a later date COR #71 CMB agreed to a Not-to-Exceed amount of \$346,456 on 4/4/12. All physical work was scheduled to complete by 4/13/12 <b>COMPLETE, NO FURTHER ACTION; CMOD #17</b>	CMOD #17 Approved
1251-0035	01/11/12	082-0035	Potholing on Stockton between Post and Geary for UMS Station design	1					UMS Design Team requested 1251 to pothole (6'Wx12'Lx8'D) on Stockton between Post and Geary to locate existing piles and tie-backs at Union Square. Cost for this scope of work from the Contractor is \$19,870.73. Per direction from the CMB on Jan 18th this request is denied and the DP2 designer will cover this potential future obstruction with a note on the drawings. COR #53 <b>CLOSED; NO FURTHER ACTION. Per direction of CMB on 1/18/12, this request is denied and DP2 Designer will cover this potential future obstruction with a note on the drawings.</b>	

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1251-0036	01/11/12	082-0036	Install three 6" PG&E conduits from vault 5800 to PG&E "A" pullbox at 4th/Bryant.	6				CN 1252 Contract is requesting 1251 to install PG&E conduits in order to bring power in advance of the tunnel equipment arrival. The scope of work, which involves trenching at the busy 4th/Bryant intersection, was part of the 1252 contract, hence, a credit of same amount (\$54,892.07) to be due back to 1252. Based upon a field meeting and discussions with BIH on Jan 17th this work will be done under CN 1252 as originally planned. COR #55 <b>CLOSED; NO FURTHER ACTION. Based on field meeting with BIH on 1/17/12; this work will be completed under CN 1252 as planned.</b>		
1251-0037	01/17/12	082-0037	Install sewer lateral from the Gucci building (240 Stockton) to the main sewer on Maiden Lane. Work will involve plumbing modification inside building to raise invert.	3	CMB-0078	Agree	09/12/12	+27,428	After field investigation, the existing sewer lateral was found to connect to the Stockton main near Geary. However, the location where the lateral is connected to the main is inside the footprint of the UMS station, in which the main is shown in the contract plan to be slurry filled. The contract plan shows the lateral to be connected to the main on Maiden Lane but is not possible due to invert problem. At the CMB meeting on 1/18/12, Albert Hoe reported that he had instructed the design team during the design phase to investigate this lateral and make the connection to the sewer main at Maiden Lane. RE was asked to investigate if this could be a possible error and omission by the sewer design. (See Trends #44 and 45) <b>COMPLETE, NO FURTHER ACTION; CMOD #18</b>	CMOD #18 Approved
1251-0038	01/04/12	082-0038	Reimburse Synergy for JCDecaux work to remove kiosks	1	CMB-0064, CMB 0080	Agree	1/04/2012, 10/24/12	+29,273	JCDecaux refused to remove the remaining (2EA) kiosks without being paid for work already completed. The CMB approved on 1/04/12 Task Order No. 35 (Removal of 3EA sidewalk kiosks) as requested for the work already completed. On 10/24/12 the CMB approved Trend #38 removal of the remaining 2EA kiosks; work already completed and paid for as part of the approved CMB 0064 dated 01/04/12 for a total of 5EA kiosks removed. Total work priced at \$29,268. <b>COMPLETE, NO FURTHER ACTION; CMOD #22</b>	CMOD #22 Approved
1251-0039	01/17/12	082-0039	Furnish and install 2ea benches along 5th Street	1				+4,752	Requested by Muni Operation. <b>COMPLETE, NO FURTHER ACTION; CMOD #22</b>	CMOD #22 Approved
1251-0040	02/15/12	082-0040	Furnish and install AT&T Manholes 133 at Post/Stockton	6	CMB-0070	Agree	04/11/12	+45,000	AT&T requested SFMTA for Synergy to rebuild manhole 133 at Post/Stockton. COR #64 AT&T agreed to reimburse SFMTA (\$45,000) through the Form B process. <b>COMPLETE, NO FURTHER ACTION; CMOD #14</b>	CMOD #14 Approved
1251-0041	02/15/12	082-0041	Install additional 55 LF of AT&T trench to extend conduits from vault 5832 to vault 113 on O'Farrell Street	6	CMB-0070	Agree	04/11/12	+23,704	AT&T requested SFMTA for Synergy to extend their conduit from vault to vault instead of wye-casting into exiting duct bank. COR #63 AT&T agreed to reimburse SFMTA (\$23,704) through the Form B process. <b>COMPLETE, NO FURTHER ACTION; CMOD #14</b>	CMOD #14 Approved
1251-0042	02/15/12	082-0042	Install additional 95 LF of AT&T trench to extend conduits from vault 5831 to vault 129 on Geary Blvd.	6	CMB-0070	Agree	04/11/12	+31,525	AT&T requested SFMTA for Synergy to extend their conduit from vault to vault instead of wye-casting into exiting duct bank. COR #62 AT&T agreed to reimburse SFMTA (\$31,525) through the Form B process. <b>COMPLETE, NO FURTHER ACTION; CMOD #14</b>	CMOD #14 Approved
1251-0043	02/15/12	082-0043	Force account work for demolition of existing AT&T vaults 113 (Post/Stockton) and 403 (Ellis)	6	CMB-0076	Agree Conditionally	10/03/12	+52,607	Agreed cost shown in Trends 29 and 40 is for installing vaults only. Cost to demo existing vaults is tracked on force account (estimated cost at \$15k each vault). AT&T agreed to reimburse SFMTA (\$52,607) through the Form B process. CMB Agreed contingent on receipt of confirmation letter from AT&T for costs associated with these three trends (CMB 0076 approval - see Trend CN1251 #'s 72 & 80) <b>COMPLETE, NO FURTHER ACTION; CMOD #23</b>	CMOD #23 Approved

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1251-0044	02/15/12	082-0044	3	CMB-0078	Agree	09/12/12	+11,438	Contract plan SW-4 shows an existing lateral to be connected to new main. However, the 8" lateral is too big to be connected directly to the new 14" main necessitating a new connection to the manhole. However, numerous existing utilities were in the way and required installation of a new lateral at a higher elevation. Due to the raised lateral invert, modification to the building is also needed. <b>COMPLETE, NO FURTHER ACTION; CMOD #18</b>	CMOD #18 Approved
1251-0045	02/15/12	082-0045	3	CMB-0078	Agree	09/12/12	+30,260	Contract plan SW-3 shows 2 each existing laterals coming from the Union Square garage to be connected to the new main at approximate sta 128+55. However, the laterals were found to be connected to the downstream end of the existing main (toward Geary), which is called for to be abandoned in 1251 to make room for the future station. (See Trends #37 and 44) <b>COMPLETE, NO FURTHER ACTION; CMOD #18</b>	CMOD #18 Approved
1251-0046	03/06/12	082-0046	6				+80,000	The two (2) existing PG&E duct banks that were supposed to be intercepted by vault 584 were wider than shown on plan. Vault 584 was needed to be enlarged in order to capture the two (2) ductbanks. <b>PG&amp;E agreed to reimburse SFMTA (\$80,000) through the Form B process.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #24</b>	CMOD #24 Approved
1251-0047	04/10/12	082-0047	2	CMB-0082	Agree	10/31/12	+15,357	Contract plan JT-301 calls for an intercept vault to capture 2 (E) Muni ductbanks (DB). These DBs were found to be farther apart than shown on plan. The intercept vault needs to be widened.  (CMB 0082 approval - see Trend CN1251 #'s 47, 58 & 78) <b>COMPLETE, NO FURTHER ACTION; CMOD #26</b>	CMOD #26 Approved
1251-0048	04/10/12	082-0048	2					Contractor's hollow stem auger got stuck during drilling of micropile #27C in front of 17 Stockton. Contractor claims differing condition as cause for the stuck auger. Contractor is asking for 1 day compensable time extension. SFMTA is reviewing claim for entitlement. COR #67 <b>RE Denied COR (City Letter 26); however Contractor will most likely send rebuttal.</b> <b>CLOSED; NO FURTHER ACTION.</b>	
1251-0049	04/10/12	082-0049	2	CMB-0083	Agree	11/07/12	+9,058	Existing footing of One Stockton was found to be recessed from property line. City's response to RFI 171 called for additional rebar to compensate for the gap between back of new enclosure wall and existing footing. Also, the Owner's contractor of 17-19 Stockton asked that Synergy clear his work area so he can pour the primary wall and bring in his new switchgear. Synergy is asking 2 days compensable time extension. (CMB 0083 approval - see Trend CN1251 #'s 53, 59, and 64) <b>COMPLETE, NO FURTHER ACTION</b>	CMOD #27 Approved
1251-0050	04/10/12	082-0050	2	CMB-0074	Agree	08/15/12	+48,898	Type 770 pole foundation at SW 5th/Folsom could not be installed per plan due to a conflict with a cistern. Only solution is to remove an existing pole foundation (recently installed in 1251 as contract work) to make room for the 770 pole foundation. At 5th/Folsom, 2 DPT mast arms (not shown in original plan) need to be installed. At Pole #811, an existing concrete wall is in conflict with pole foundation.  (CMB 0074 approval - see Trend CN1251 #'s 67, 74 & 75) <b>COMPLETE, NO FURTHER ACTION; CMOD #20</b>	CMOD #20 Approved
1251-0051	04/10/12	082-0051	6				+23,633	PG&E requested to reroute existing duct bank running north out of MH 1803 at 4th/Pioneer Place into MH 5464 at Market/Ellis <b>PG&amp;E agreed to reimburse SFMTA (\$23,633) through the Form B process.</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #24</b>	CMOD #24 Approved

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1251-0052	04/10/12	082-0052	Reroute unforeseen existing waterline on Geary east of Stockton	2	CMB-079	Agree	10/10/12	+27,234	An unforeseen existing waterline was found to be in conflict with PG&E vault 573 and needs to be rerouted per City's response to RFI #182. (CMB 0079 approval - see Trend CN1251 #'s 65 & 70). This is potentially a E&O issue due to unforeseen existing waterline on discovered along Geary Street (east of Stockton Street) not shown in the contract drawings. <b>COMPLETE, NO FURTHER ACTION; CMOD #28</b>	CMOD #28 Approved
1251-0053	04/10/12	082-0053	Additional cost for premium to accelerate contract work	1	CMB-083	Agree	11/07/12	+10,591	SFMTA directed Synergy to accelerate work to advance PG&E and AT&T cut-over and allow CN 1252 Contractor to start work at UMS COR #74 PG&E agreed to reimburse SFMTA (\$10,590) through the Form B process. 11/07/12 (CMB 0083 approval - see Trend CN1251#'s 49, 59, and 64) <b>COMPLETE, NO FURTHER ACTION; CMOD #27</b>	CMOD #27 Approved
1251-0054	04/17/12	082-0054	Additional waterproofing at FIDM and north end of Crate & Barrel	2				+8,151	Sidewalk in front of FIDM and north end of Crate & Barrel did not have a sub-sidewalk basement, hence the original plan did not call for waterproofing of the primary wall. While excavating for the joint trench, contractor found the existing waterproofing to be spalling and peeling off from the primary wall. COR #72 <b>COMPLETE, NO FURTHER ACTION; CMOD #22</b>	CMOD #22 Approved
1251-0055	04/17/12	082-0055	Install Swiveloc lids on all PG&E vaults	6					PG&E requested SFMTA to add this scope to the 1251 contract for safety reason. COR #72 SFMTA decided to defer this work to the 1252 contract. <b>COMPLETE, NO FURTHER ACTION;</b>	
1251-0056	05/31/12	082-0056	Additional work on force account related to sewer installation	2				+45,156	Additional work due to unforeseen and differing conditions during installation of sewer. <b>COMPLETE, NO FURTHER ACTION; CMOD #15</b>	CMOD #15 Approved
1251-0057	05/31/12	082-0057	Additional work on force account related to water installation and NRG vault demolition	2				+39,599	Additional work due to unforeseen and differing conditions during installation of water and demolish existing NRG vaults that are in conflict with utility installation. <b>COMPLETE, NO FURTHER ACTION; CMOD #16</b>	CMOD #16 Approved
1251-0058	05/31/12	082-0058	Additional streetlight conduit on 5th Street between Harrison and Bryant	2	CMB-0083	Agree	10/31/12	+17,754	The existing streetlight pullboxes new cables were supposed to be connected to per contract plan did not have power. New conduit needs to be install from the power source. COR #75 (CMB 0082 approval - see Trend CN1251 #'s 47, 76 & 78) <b>COMPLETE, NO FURTHER ACTION; CMOD #25</b>	CMOD #25 Approved
1251-0059	06/26/12	082-0059	Accelerate contract work at Barney's front	1	CMB-0083	Agree	11/07/12	+16,948	As a result of numerous meetings and complaints by Barneys, it was decided to accelerate contract work in order to restore Barneys sidewalk earlier (CMB 0083 approval - see Trend CN1251 #'s 53, 49, and 64) <b>COMPLETE, NO FURTHER ACTION; CMOD #27</b>	CMOD #27 Approved
1251-0060	06/26/12	082-0060	Final Bid Item Reconciliation	4				(508,961)	Bid item analysis for entire contract as of 6/12/12.	CMOD #30 Approved
1251-0061	06/26/12	082-0061	Excavate for PG&E cutover at 177 Stillman	6				+7,424	PG&E requested Synergy to excavate for PG&E cutover at 177 Stillman. Reference document: Email from Michael Lightstone dated 12/9/11 PG&E agreed to reimburse SFMTA (\$7,424) through the Form B process. <b>COMPLETE, NO FURTHER ACTION; CMOD #24</b>	CMOD #24 Approved
1251-0062		082-0062	Additional waterproofing at Macys Men's wall	2				+24,774	Contract did not call for waterproofing at Macys Men's wall. However, when contractor dug for the joint trench, it was found that the existing waterproofing has deteriorated and needed to be replaced. COR# 20 <b>COMPLETE, NO FURTHER ACTION; CMOD #22</b>	CMOD #22 Approved

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1251-0063		082-0063	Excavation and restoration cost for PG&E gas tie-in and kill holes. Part II	6				+56,458	After completion of Part I (see trend 32), PG&E had offered to self-perform the excavation and restoration of the gas tie-in/kill holes because PG&E had crews available to perform the work. However, PG&E no longer have available crews, hence Synergy had to continue and finish excavating and restoring the last tie-in/kill holes. PG&E agreed to reimburse SFMTA (\$56,458) through the Form B process. <b>COMPLETE, NO FURTHER ACTION; CMOD #24</b>	CMOD #24 Approved
1251-0064		082-0064	Accelerate finish and detail work of AT&T and PG&E vaults	1	CMB-0083	Agree	11/07/12	+4,704	In order to expedite turn-over of AT&T and PG&E vaults, SFMTA directed Synergy to accelerate the detailing and finish work of these vaults. SFMTA will pay Synergy premium cost for OT hours. 11/07/12 - (CMB 0083 approval - see Trend CN1251 #s 53, 59, and 49) <b>COMPLETE, NO FURTHER ACTION; CMOD #27</b>	CMOD #27 Approved
1251-0065		082-0065	Additional fittings for AWSS lateral and chipping of pole foundation at Market/Ellis	2	CMB-0079	Agree	10/10/12	+20,412	An existing Muni pole foundation is in the way of the AWSS lateral. Additional fittings are required to complete contract work. (CMB 0079 approval - see Trend CN1251 #s 52 & 70) This is potentially an E & O issue due to an existing Muni pole foundation is in the way of the AWSS lateral. <b>COMPLETE, NO FURTHER ACTION; CMOD #28</b>	CMOD #28 Approved
1251-0066		082-0066	Intercept PG&E conduits at Vault 573 at Geary east of Stockton	6				+6,466	During installation of PG&E intercept vault 573, PG&E had incorrectly identified the conduits to be intercepted. This error was discovered during cut-over process by PG&E. PG&E agreed to reimburse SFMTA (\$6,466) through the Form B process. <b>COMPLETE, NO FURTHER ACTION; CMOD #24</b>	CMOD #24 Approved
1251-0067		082-0067	Additional feeder span, no-bo insulator and adjustment of guywire for the Folsom OCS bypass	3	CMB-0074	Agree	08/15/12	+32,149	SFMTA Electrical Designer had pointed out the new Folsom Bypass does not have enough capacity to power the new OCS necessitating installation of feeder spans. Also, adjustments to the guywire are necessary to mitigate conflict with new signal mast arms. COR #76 7/25/12 - RE presented COR to CMB; direction given to develop one CMod with all remaining items to be purchased for the new OCS bypass. (CMB 0074 approval - see Trend CN1251 #s 50, 74 & 75) <b>COMPLETE, NO FURTHER ACTION; CMOD #20</b>	CMOD #20 Approved
1251-0068		082-0068	Extended Overhead cost from July 19, 2012 to August 16, 2012	1	CMB-0075	Agree Conditionally	10/03/12	+106,967	Contract is expected to be extended beyond the approved July 18, 2012 completion due to the following reasons: contractor was slowed due to accommodation of AT&T and PG&E cut-over, for example, contractor has to provide windows of time for AT&T to occupy its work space to provide continuity and efficiency for AT&T cut-over, contractor has to advance cleaning and detailing of vaults to turnover to AT&T and PG&E, these work are typically done as punchlist, contractor now has to sequence work and reallocate resources; SFWD cut-over is taking longer than expected; PG&E gas cut-over was delayed due to inability to access Armani building, this delay held up completion of sewer MH, SFWD connection and restoration on O'Farrell east; added change order work, i.e. additional PG&E conduit at vault 573 and additional excavation for AT&T cut-over at 240 Stockton  CMB Agreed contingent on receipt of letter confirming e-mail as presented in the meeting and content viewed related to agreement and remaining actions and release of funds. <b>COMPLETE, NO FURTHER ACTION; CMOD #24</b>	CMOD #29 Approved
1251-0069		082-0069	Removal of abandoned PG&E gas valve (8each) and install anodes	6				+4,737	PG&E asked Synergy to remove all abandoned gas valves (8each) PG&E agreed to reimburse SFMTA (\$4,737) through the Form B process. <b>COMPLETE, NO FURTHER ACTION; CMOD #24</b>	CMOD #24 Approved

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1251-0070		082-0070	Core drill primary wall and install interior plumbing at Armani and Disney for the fire service water cutover	2	CMB-0079	Agree	10/10/12	+14,034	Existing fire service inside the building is a thin-wall steel pipe that extends out to the previously existing sub-sidewalk basement. However, 1251 had backfilled the subsidewalk basement per contract, which now made the steel pipe susceptible to corrosion. SFWD does not want to tie-in to the steel pipe due to corrosion issue plus the fact that the pipe is thin walled, which makes welding almost impossible. A ductile iron pipe needs to be installed from the main and into the building. COR #77  (CMB 0079 approval - see Trend CN1251 #'s 52 & 65) <b>COMPLETE, NO FURTHER ACTION; CMOD #28</b>	CMOD #28 Approved
1251-0071		082-0071	Install a new 8" backflow preventer for the fire service inside Macys Men's building	6					The new water main (installed in the 1251 Contract) is closer to the property line than the existing backflow preventer. State law stipulates that a backflow preventer be installed in between the property's fire suppression system and the water main. The SFWD refuses to make this connection until a proper backflow preventer is installed. SFMTA will insist on Macys to install its own backflow preventer. <b>CLOSED; NO FURTHER ACTION.</b>	
1251-0072	08/08/12	082-0072	Additional AT&T trench from new vault 5829 to existing vault 127 on Geary east of Stockton	6	CMB-0076	Agree	10/03/12	+23,993	AT&T requested new conduits to maintain continuity between the 2 vaults. AT&T agreed to reimburse SFMTA (\$23,993) through the Form B process. <b>RE Tracking work on FAR</b>  CMB Agreed contingent on receipt of confirmation letter from AT&T for costs associated with these three trends (CMB 0076 approval - see Trend CN1251 #'s 43 & 80) <b>COMPLETE, NO FURTHER ACTION; CMOD #14</b>	CMOD #14 Approved
1251-0073	08/08/12	082-0073	Additional work to install water and electrical utilities for Flower Stand on Geary west of Stockton	1				+17,966	Contract bid allowance for providing utility services for flower stands (UD-14) had been exhausted during relocation of 2 flower stands. A third and final flower stand is still needed to be relocated. <b>COMPLETE, NO FURTHER ACTION; CMOD #22</b>	CMOD #22 Approved
1251-0074	08/08/12	082-0074	Traffic Signal modification at 5th/Folsom	1	CMB-0074	Agree	08/15/12	+16,429	Due to installation of OCS bypass on Folsom between 4th and 5th Streets, a left turn signal is required at 5th/Folsom. Additional signal heads and modification to the existing traffic signal is necessary. <b>RE Tracking work on FAR</b> (CMB 0074 approval - see Trend CN1251 #'s 50, 67, & 75 also). <b>COMPLETE, NO FURTHER ACTION; CMOD #20</b>	CMOD #20 Approved
1251-0075	08/08/12	082-0075	Unforeseen conditions related to pole foundation installation for the Folsom OCS Bypass	2	CMB-0074	Agree	08/15/12	+12,568	Contractor encountered unforeseen concrete and brick substructures and abandoned utility lines. <b>RE Tracking work on FAR</b> (CMB 0082 approval - see Trend CN1251#'s 47, 58 & 78) <b>COMPLETE, NO FURTHER ACTION; CMOD #20</b>	CMOD #20 Approved
1251-0076	08/08/12	082-0076	Adjustment to OCS on Mason Street	2/3	CMB-0082	Agree	10/31/12	+14,988	Modify bracket arm at existing Pole #511 to alleviate tension load and bending of pole. Realign trolley wire on Mason between Geary and Eddy to smoothen transition when shifting from right lane to left lane. Also, add intermediate guywire to prevent excessive sagging of bracket arms at various locations. <b>RE Tracking work on FAR</b> (CMB 0082 approval - see Trend CN1251#'s 47, 58 & 78) <b>COMPLETE, NO FURTHER ACTION; CMOD #26</b>	CMOD #26 Approved

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1251-0077	09/12/12	082-0077	2	CMB-0081	Agree Conditionally	10/31/12	+37,181	Qwest, TCG and UCCO requested Synergy to tie-in their existing conduits into the new vaults that Synergy installed per contract. The utility companies are responsible for connecting existing conduits into new vaults, therefore, this request is considered extra work. Private Utilities companies agreed to reimburse SFMTA (\$37,181) through the Form B process. <b>RE Tracking work on FAR</b> CMB agreement contingent upon CMod package to include evidence from all utilities that cost are reimbursable to SFMTA through the Form B process. <b>COMPLETE, NO FURTHER ACTION; CMOD #25</b>	<b>CMOD #25</b> Approved	
1251-0078	09/12/12	082-0078	2	CMB-0082	Agree	10/31/12	+27,645	Several obstructions, i.e. buried concrete, boulders, brick, abandoned utilities were discovered during excavation and installation of OCS poles along Mason and 5th Streets. <b>RE Tracking work on FAR</b> (CMB 0082 approval - see Trend CN1251 #'s 47, 58 & 76) <b>COMPLETE, NO FURTHER ACTION; CMOD #26</b>	<b>CMOD #26</b> Approved	
1251-0079	09/12/12	082-0079	2				+44,530	Unforeseen conditions were encountered during installation of select PG&E vaults including joint trenches leading to these vaults. PG&E agreed to reimburse SFMTA (\$44,530) through the Form B process. <b>RE Tracking work on FAR</b> <b>COMPLETE, NO FURTHER ACTION; CMOD #24</b>	<b>CMOD #24</b> Approved	
1251-0080	09/12/12	082-0080	2	CMB-0076	Agree	10/03/12	+56,806	Unforeseen conditions were encountered during installation of select AT&T vaults including joint trenches leading to these vaults. AT&T agreed to reimburse SFMTA (\$56,805) through the Form B process. CMB Agreed contingent on receipt of confirmation letter from AT&T for costs associated with these three trends (CMB 0076 approval - see Trend CN1251 #'s 43 & 72) <b>COMPLETE, NO FURTHER ACTION; CMOD #23</b>	<b>CMOD #23</b> Approved	
1251-0081	09/13/12	082-0081	6	CMB-0107	Agree	02/13/13	+43,882	Contract Plan JT-014 calls for CDF cover on PG&E duct bank. However, PG&E requested to use regular concrete due to heat dissipation problem with CDF. PG&E agreed to reimburse SFMTA (\$43,881) through the Form B process. 12/19/12 - Presented to CMB, direction given to finalize cost and obtain a Form B agreement with PG&E 02/13/13 - Revised CMod presented to CMB. PG&E agreed with negotiated reimbursement amount. <b>COMPLETE, NO FURTHER ACTION</b>	<b>CMOD #24</b> Approved	
<b>Contract 1251 Totals</b>								+3,962,032	<b>Total Changes to the contract in the amount of 3,962,032 represents an UNDERRUN of allocated contingency in the amount of \$1,405,265.32.</b> <b>Changes that will be Utility Reimbursement credits through the Form B process in the amount of \$1,224,828 will increase the UNDERRUN.</b> <b>Final Contract Closeout Total \$20,794,581 will be reduce by \$7,618,112 Utility Reimbursement credits for a Final Program cost of \$13,176,469 for CN 1251</b>	

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					Approval Action	Approval Date				
Contract 1252	COR No.	PCC No.	1252 Change Description	Change Type	CMB Change No.	Configuration Management Board Agree/Disagree	Decision Date	Actual/Forecast	Comments	Contract Modification No.
1252-0001	04/23/12	1	AWSS Conflict w/ Low Pressure Water	6	CMB-0091	Agree to Merit Agree to Cost	10/10/12 01/16/13	+16,907	AWSS contract work was made more difficult by the proximity of a water line which was closer than indicated on UT-501. See COR 008 for TIA request. 10/10/12 - Merit info presented to CMB - Agreed 01/16/13 - EE brought to CMB for cost NOT TO EXCEED \$16,900 - Agreed	
1252-0002	04/23/12	2	AWSS Add. Tie-Rods 4th-Harrison	6	CMB-0086	Agree to Merit Agree to Cost	10/10/12 12/19/12	+55,132	The AWSS line must be restrained a certain distance beyond the 90 degree elbow we are installing under contract 1252. The 1252 contract work includes excavating on both sides of this 12-foot portion of pipe. Additional work scope (per Michael Smith @ DPW): Station 162+80 to 162+90 - Restrain the existing 12-inch tee to the existing pipe north of the tee. Restrain any other joints that are not restrained on the existing pipe up to the new pipe to be installed. 10/10/12 - Merit info presented to CMB - Agreed 12/19/12 - EE brought to CMB for cost NOT TO EXCEED \$58,000 - Agreed	
1252-0003	04/23/12	3	AT&T Vault Conflict-4th & Harrison	6	CMB-0092	Agree to Merit Agree to Cost	10/10/12 01/16/13	+16,015	After excavation of the roadway surface and subgrade at Fourth and Harrison streets an AT&T vault was discovered to be in conflict with the current alignment of the 42" RCP sewer main. Verbal authorization was given by an AT&T representative to make modifications to the vault. COR 003 has been submitted by BIH in response to this issue. Work is to be charged via SFMTA Form B agreement to AT&T. 10/10/12 - Merit info presented to CMB - Agreed 01/16/13 - EE brought to CMB for cost NOT TO EXCEED \$21,089 - Agreed 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement.	
1252-0004	05/18/12	6	PG&E live electrical delays	6	CMB-0088	Agree to Merit Agree to Cost	11/28/12 1/9/2013	+7,402	PG&E lines indicated on contract drawing UD-502 thru 504 were to be abandoned yet were not yet abandoned when BIH started work. They were abandoned on 5/21. 11/28/12 - Merit info presented to CMB - Agreed 01/09/13 - EE brought to CMB for cost NOT TO EXCEED \$7,600 - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement or cost reimbursement. COMPLETE, NO FURTHER ACTION: CMOD #10 - Final Cost \$7,402.36	CMOD #10 Approved
1252-0005	06/06/12	7	Oil filled pipe @ Launch Box	2	CMB-0093	Agree to Merit Agree to Cost	1/16/13 1/16/13	+9,980	Synergy Demo Crew exposed an existing 6" steel line which had oil in it on the West side of 4th St between Harrison and Bryant. 01/16/13 - Merit info presented to CMB - Agreed 01/16/13 - EE brought to CMB for cost NOT TO EXCEED amount \$10,000 COMPLETE, NO FURTHER ACTION; CMOD #05 - Final Cost \$9,979.81	CMOD #5 Approved
1252-0006	04/23/12	8	TIA - Associated w/ COR 001, COR 002, and COR 003	6		Agree to Merit	10/10/12	+269,904	TIA and Overhead Costs related to COR 001, 002 and 003. 10/10/12 - Merit info associated w/COR's 001, 002 & 003 presented to CMB - Agreed. 01/30/13 Elevation Ladder documentation presented for review of unresolved issue of payment of indirect costs for TIA submittals- COR 008	
1252-0007	06/12/12	9	MOS - Impacts due to SFWD low psi water line	2	CMB-0143	Agree to Merit Agree to Cost	11/06/13	+49,047	Live PG&E Electrical Lines Conflict: BIH was notified that PG&E had live electrical lines running through each headwall work zone @ Moscone station. 8 inch Low Pressure Water Line Conflict: Contract drawings show this utility to be abandoned and capped prior to work. Synergy struck and damaged the water line. SFWD directed Synergy to excavate a kill hole so they could properly abandon the line. 11/04/12 - COR Evaluation for No Merit presented to CMB for - Agreed. Contractor did not follow contract specification 02.30.00 and 02.41.00 requiring the Contractor to verify the locations of any City or public service utility company facilities that may be affected by excavation and to ensure no damage to existing underground facilities. 11/06/13 - Merit info presented to CMB - Agreed for partial merit of cost associated with excavating two additional "kill-holes on 06/20/12 & 06/21/12. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$5,727.00 - Agreed	

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1252-0008	06/19/12	10	MOS - Demo PGE duct bank / SF City 911 fiber optic line	2	CMB-0094	Agree to Merit Agree to Cost	10/10/12 01/16/13	+4,916	Upon excavation of the MOS north headwall, BIH's subcontractor Synergy Project Management (SPM) uncovered a PG&E duct bank that contained a live San Francisco 911 fiber optic line. 11/14/12 - Presented to CMB - The narrative will be rewritten CMB agrees with partial merit labor work involved in supporting the utility agencies. This item will be brought back to the CMB for approval. 01/09/13 - EE brought to CMB for cost NOT TO EXCEED \$4,919.54 - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. COMPLETE, NO FURTHER ACTION: CMOD #03 - Final Cost 4,915.54	CMOD #3 Approved
1252-0009	07/02/12	11	MOS - Traffic Signal line re-route south headwall	6	CMB-0095	Agree to Merit Agree to Cost	01/16/13	+37,500	After potholing Synergy discovered several traffic lines which were in the proposed location of the south MOS headwall. Traffic Lines re-routed. Merit info presented to CMB - Agreed 01/16/13 - CMB - NOT TO EXCEED \$37,500	
1252-0010	01/00/00	12	MOS - Archaeological Standby North Headwall	2	CMB-0096	Agree to Merit Agree to Cost	12/11/12 01/16/13	+16,893	Upon excavation of the MOS north headwall, BIH's subcontractor Synergy Project Management (SPM) uncovered a layer of "Midden" or Native American debris. 12/11/12 - Merit info presented to CMB - Agreed 01/16/13 - EE brought to CMB for cost NOT TO EXCEED \$7,600 - Agreed COMPLETE, NO FURTHER ACTION: CMOD #06 - Final Cost \$16,892.96	CMOD #6 Approved
1252-0011	07/06/12	13	MOS - SL conduit from PG&E vault @ north headwall	6		Agree to Merit	11/28/12	-0-	Permanent power is required to supply an existing Street Light box north of the MOS N headwall. 11/28/12 - Merit info presented to CMB - Agreed 04/01/13 - CM Team must obtain in writing from PG&E a utility agreement for cost reimbursement.	
1252-0012	06/26/12	15	LB - Pre-Excavation for Slurry Walls	2	CMB-0087	Agree to Merit Agree to Cost	11/28/12 12/19/12	+96,000	Pre-excavation of slurry wall panels due to CDF encased sewer line. The concrete encasement was found by the Contractor to extend to a depth of 9'-11' below the top of guide wall or street surface. The 8" VCP sewer main and concrete encasement was incorrectly shown in the contract drawings to be approximately 4'-5' below the street surface. 11/28/12 - Merit info presented to CMB - Agreed 12/19/12 - EE brought to CMB for cost NOT TO EXCEED \$96,000 - Agreed	
1252-0013	07/02/12	17	MOS - Impacts @ North and South Headwalls due to live utilities	6		CMB-0144	Agree to Merit Agree to Cost	11/06/13	Standby delays related to the discovery of traffic lines within the proposed location of the south MOS headwall. 11/14/12 - COR presented to CMB. CMB requested additional revisions to the evaluation. CMB agrees with partial merit. The COR will be brought back to the CMB for approval. 11/21/12 - COR revisited at mtg for clarification the issue is related to CMB action from item 3 - 7/25/12 (Mtg #88) specifically acted on 08/01/12 (CMB Mtg. 89) referred originally as Trend #15. CMB Agreed to No Merit to this contract change. 11/06/13 - Merit info presented to CMB - Agreed to DSC for equipment standby costs for a period of 16 working days. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$43,219 - Agreed	
1252-0014	Closed	19	UMS - Grant street 2 way conversion (e- & striping)	7				-0-	In order to implement a full street closure for Stockton Street at the UMS location the DPT recommended that Grant Street be converted from an existing one-way street to a two way street for vehicular traffic. Closed - Work is done. 07/18/12 - This potential change was brought before the CMB. Board's decision to have DPT perform the work. CLOSED; NO FURTHER ACTION	
1252-0015	06/22/12	20	PROJECT WIDE - Utility Demo limit reduction credit	7				-0-	BIH's subcontractor Synergy Project Management (SPM) would like to minimize the limits of utility demo at the Launch Box, Moscone station, UMS station and TBM Retrieval Shaft locations. SFMTA to BIH/SPM "Build per Plan". CLOSED; NO FURTHER ACTION	
1252-0016	04/02/12	21	UMS - Reduced Duration	5	CMB-0073	Agree Cost (Conditionally)	08/01/12	-0-	No cost change for acceleration of utility relocation, ground improvements (jet grouting), and headwall construction at Union Square/Market Street Station. 08/01/12 - CMB approval condition upon incorporating correctness to backup documentation as required by & documented in CMB mtg. RE to prepare modification. COMPLETE; NO FURTHER ACTION: CMOD #08 - No Cost Change	CMOD #8 Approved

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1252-0017	07/10/12	22	MOS - Asbestos Pipe at north headwall	2	CMB-0090	Agree to Merit Agree to Cost	12/12/12 01/09/13	+5,705	Upon excavation of the MOS north headwall, BIH's subcontractor Synergy Project Management (SPM) uncovered friable asbestos-laden transite pipe. 12/12/12 - Merit info presented to CMB - Agreed 01/09/13 - EE brought to CMB for cost NOT TO EXCEED \$6,000 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #05 - Final Cost \$5,707.05	CMOD #5 Approved
1252-0018	07/10/12	23	MOS - Brick Wall #2 discovered @ north headwall	2				+16,025	Upon excavation of the MOS north headwall, BIH's subcontractor Synergy Project Management (SPM) uncovered a buried wall. 11/14/12 COR presented to CMB. Evaluation for merit will be rewritten and brought back to CMB for approval. 11/21/12 - Evaluation of merit presented to CMB - Agreed to No Merit to this contract change.	
1252-0019	08/10/12	26	MOS - Asbestos Pipe at south headwall	2	CMB-0085	Agree to Merit Agree to Cost	12/12/12 01/09/13	+27,630	Transite pipe was discovered during MOS south headwall excavation. 12/12/12 - Merit info presented to CMB - Agreed 01/09/13 EE brought to CMB for cost NOT TO EXCEED \$30,000 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #15 COMPLETE, NO FURTHER ACTION: CMOD#15 - Final Cost \$27,629.64	CMOD #15 Approved
1252-0020	08/10/12	27	MOS - Oil filled pipe at south headwall	2	CMB-0089	Agree to Merit Agree to Cost	12/12/12 01/09/13	+8,226	A pipe containing oil was discovered during MOS south headwall excavation. 12/12/12 - Merit info presented to CMB - Agreed 01/09/13 CMB - NOT TO EXCEED \$8,600 COMPLETE, NO FURTHER ACTION: CMOD #05 - Final Cost \$8,225.68	CMOD #5 Approved
1252-0021	06/19/12	29	MOS - Todco scaffolding reimbursement	2	CMB-0097	Agree to Merit Agree to Cost	12/12/12 01/16/13	+1,718	1252 contract work requires the removal of scaffolding erected by Fine Line Construction, the contractor performing renovations on the Woolf House. 12/12/12 - Merit info presented to CMB - Agreed 01/09/13 - EE brought to CMB for cost NOT TO EXCEED \$1,717 - Agreed COMPLETE, NO FURTHER ACTION: CMOD #03 - Final Cost \$1,717.83	CMOD #3 Approved
1252-0022	Closed	closed	Disputed Work Items - NTP2 vs. NTP3	7					BIH interpretation of Special Provisions SP-3 NTP2 description includes activities that SFMTA interprets to be within NTP3. These activities include: Ellis Street and Green Street shafts and associated compensation grouting, MOS headwalls and jet grouting, jet grouting at cross passage 5, UMS head walls and jet grouting, OCS removal along Stockton Street from Geary to Ellis, and the TBM retrieval shaft. On April 13, SFMTA released the MOS headwalls and jet grouting, jet grouting at cross passage 5, UMS jet grouting, OCS removal along Stockton Street from Geary to Ellis, and preparatory and utility work necessary for the construction of the retrieval shaft. CLOSED; NO FURTHER ACTION.	
1252-0023	05/30/12		Manhole in east guidewall footprint	2					While performing excavation for the east side guidewalls at the TBM Launch Box, BIH's subcontractor CJA-NCC encountered a manhole near the bottom of the excavation which was unexpected. BIH has stated that removal of the manhole prior to the installation of the guidewalls was necessary to ensure the successful installation of the slurry walls. 05/20/12 - CM Team comment: Synergy traded this COR with SFMTA for shallow Force Main Installation. CLOSED; NO FURTHER ACTION.	
1252-0024	Closed	closed	2" gas line inside 16" casing	2					While performing excavation for the Sewer and AWSS trench at the intersection of Fourth and Harrison streets, BIHJV's subcontractor Synergy encountered what was identified to be a 16" depressurized gas main. This gas main contained a 2" gas line which is shown on contract drawing UD-502 to be abandoned/removed. CLOSED; NO FURTHER ACTION.	
1252-0025	04/23/12	5	CDF Encasement on 42" RCP	2				+140,596	While performing excavation for the east side guidewalls at the TBM Launch Box, BIH's subcontractor CJA/NCC encountered a CDF backfill at the existing 42" RCP sewer which reportedly had a significantly higher compressive strength than the 50-150 psi. which was anticipated. BIH claims that the CDF conflicted with the construction of the guidewalls and it could not be excavated by conventional means.	
1252-0026	Closed	closed	Damage to Live LPW main at 4th and Folsom	2				-0.	Synergy Demo Crew hit a blow-off valve on the 8" water line at the Southwest corner of the MOS headwalls. SFWD is to install a permanent cap per contract drawing WD-404. CLOSED; NO FURTHER ACTION.	

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1252-0027	Closed		MOS - 76 Gas Station fencing	1				-0-	SFMTA requested BIH to install fencing around the perimeter of the 76 gas station at 4th and Folsom St. Issue closed, cost of fence paid by BIH in return for use of gas station lot. CMB - Temporary use of 800 Folsom Street site for construction staging. Use of this site would be a tradeoff between SFMTA and BIH. The Contractor would maintain the sites security and up-keep in exchange for not billing. CLOSED; NO FURTHER ACTION.	
1252-0028	Closed		LB - SPTC delays due to concrete encased 8" sewer	2				-0-	Closed. Combined with COR 015. 07/25/12 - Verbal information presented to CMB as a potential change. CLOSED NO FURTHER ACTION	
1252-0029	08/06/12	18	MOS - South Headwall re-design	1				+145,000	Costs related to leave end stops in place and a "T-Section" at the Moscone headwalls return walls. 11/14/12 - Presented to CMB. RE is recommending a possible compensation value of \$135K. CMB agrees with partial merit for labor and material cost of this COR. RE will proceed with scoping the work. 04/17/13 - Elevation Ladder of unresolved issue of End Stops presented to CMB - COR 018 09/18/13 - Contractor has submitted a Contract Claim No. 1 Permanent End Stops at MOS Headwall for \$169,379.17. CMB directed the CM Team to draft a letter rejecting the claim.	
1252-0030	08/02/12	24	Ellis - Utility demolition	3	CMB-0135	Agree to Merit Agree to Cost	12/6/2012 10/09/13	+35,628	BIH says that no utilities were shown at Ellis; however, Reference Drawing UE-126 shows utilities. 12/06/12 - Merit info presented to CMB - Agreed 10/09/13 - Engineers Cost Comparison brought to CMB for cost NOT TO EXCEED \$35,628.22 - Agreed	
1252-0031	Closed		Crack Gauges	4				-0-	BIH disagrees with SFMTA on the total number of crack gauges to be installed on the project. Per the contract drawings a total of 926 crack gauges are to be installed. BIH claims that a total of 50 are to be installed. CLOSED; NO FURTHER ACTION.	
1252-0032	08/07/12	28	Ellis asbestos abatement	2		Agree to Merit	12/06/12	-0-	A steam line containing asbestos was discovered during potholing at the Ellis Street Shaft. 12/06/12 - Merit info presented to CMB - Agreed 01/10/13 - CM Comment - To be paid out of Environmental Mitigation allowance GE-8.	
1252-0033	-	30	LB - Class 1 Hazardous Material Haul off	2				+198,276	BIH trucking costs for Class 1 haul off generated at staging yard. Also see COR 054 regarding Class 1 Haz material haul off for Phase 2. 09/18/13 - Contractor has submitted a Contract Claim No. 2 Haz Mat Removal - Caltrans site (COR 30, 45 & 75) for 708,929.00 CMB directed the CM Team to draft a letter rejecting the claim.	
1252-0034	01/00/00	70	LB - Jet Grout Quantity Overrun	4	CMB-0115	Agree to Merit Agree to Cost	03/20/13 04/03/13	+599,900	The contract drawings call for the contractor to determine the extent of jet grouting at the launch box. Bid Item ES-3 has an estimated quantity of 2,831 CY of in-situ treated ground. The Contractor has currently installed 3,929 CY of Soilcrete (Jet Grout) for ground treatment. This translates to an additional quantity of 1,098 CY of ground treatment beyond the quantity listed for Bid Item ES-3. By subtracting 241 CY for the "scallop" portion of the columns the total is 857 CY. 03/20/13 - Merit info presented to CMB - Agreed 04/03/13 - EE brought to CMB for cost NOT TO EXCEED \$599,900 - Agreed	
1252-0035	01/00/00	unsubmitted	Utility Removal UD-304 and UD-503	6				-0-	RFI 00134 asks whether certain utilities indicated on drawings UD-304 (On Stockton inside limits of future UMS Station) and on UD-503 (On Fourth and Stillman Streets outside limits of Launch Box) may be left in place. Answer: "Confirmed, the utilities in question can be abandoned in place and are not required to be removed. The Engineer will seek an adjustment to Bid Item GB-3 for the elimination of this work."	
1252-0036	05/17/12	35	Additional Road Base on Fourth Street	2				-0-	BIH's subcontractor Synergy Project Management (SPM) discovered what they believe to be an additional layer of road base under the existing asphalt and road base layer while performing roadway demo work along the west side of Fourth street between Harrison and Bryant St. The additional layer is estimated by BIH/SPM to be approximately 8" - 12" thick. 12/06/12 - Evaluation of merit presented to CMB - Agreed to No Merit for this change.	

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1252-0037	01/00/00	unsubmitted	DPW permitting potential impacts	7				-0-	DPW Permitting issue to cause potential impacts. DPW is not issuing BIH permits for excavating the MOS headwalls, jet grouting at the LB, and excavating support at the LB, as they claim to have not been able to conduct a thorough review of the project's design documents and were not included in the design process. BIH may be required to re-sequence and stand many other potential impacts w/o said permits.	
1252-0038	05/30/12	38	Manhole in West Guidewall Footprint	3	CMB-0101	Agree to Merit Agree to Cost	12/05/12 01/23/13	+3,821	While performing excavation for the west side guidewalls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered a manhole foundation within the excavation at approximate station 165+70. It was necessary to chip away a portion of the existing manhole to gain the necessary clearance to construct the west slurry wall. 12/05/12 - CMB agreed with Evaluation of Merit 01/23/13 - EE brought to CMB for cost NOT TO EXCEED \$4,052.17 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #12 - Final Cost \$3,820.84	CMOD #12 Approved
1252-0039		unsubmitted	Panel W-33 Obstruction	2				TBD	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered buried (wood pile?) debris located approximately 12 feet below the guide wall within Launch Box Diaphragm Wall Panel W-33. This trend is being tracked separately from Trend 20 because we believe it may be a different structure. BIH has not provided adequate information substantiating the merging of the two trends. CLOSED; NO FURTHER ACTION.	
1252-0040	08/23/12		PCC No.1 - Revisions to Moscone North Headwall Elevation (Top)	1	CMB-0099	Agree to Cost	01/16/13	+20,358	SFMTA initiated change to revise headwall elevations to facilitate a change in the roof elevation of MOS station. 01/16/13 CMB - NOT TO EXCEED \$20,500 COMPLETE; NO FURTHER ACTION: CMOD #07 - Final Cost \$20,358.23	CMOD #7 Approved
1252-0041	08/23/12		PCC No. 2 - Revisions to UMS Headwall Concrete and Reinforcement Limits	1				-0-	SFMTA initiated change to revise UMS headwall concrete and reinforcement limits to provide a cost savings. 08/29/12 - Revised PCC presented to CMB CLOSED; NO FURTHER ACTION	
1252-0042	08/24/12	31	Retrieval Shaft - Unmarked 12" Steel Pipe	2	CMB-0108	Agree to Merit Agree to Cost	01/02/13 02/27/13	+1,200	While performing excavation for the joint trench at the retrieval shaft BIH's subcontractor Synergy Project Management (SPM) discovered an abandoned 12" dia. steel pipe which appears to run continuously under Columbus Ave. 01/02/13 - Merit info presented to CMB - Agreed 02/27/13 - EE brought to CMB for cost NOT TO EXCEED \$1,250 - Agreed 04/01/13 - No reimbursement from SFWD. COMPLETE; NO FURTHER ACTION: CMOD #13 - Final Cost \$1,200	CMOD #13 Approved
1252-0043	08/31/12	32	LB - Panel W29 Wood Pile	2	CMB - 0137	Agree to Merit Agree to Cost	11/28/2012 11/06/13	+81,000	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered what appeared to be a wood pile within Launch Box Diaphragm Wall Panel W-29. 11/28/12 - Merit info presented to CMB - Agreed 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$41,961 - Agreed	
1252-0044	09/04/12	33	Ret Shaft - 20" Water Line Conflict	2		Agree to Merit	11/14/12	-0-	During excavation for the joint trench at the retrieval shaft SPM discovered that the MRY Duct Bank is directly above an active 20" low pressure waterline. As a result the work at the Retrieval Shaft must reportedly be altered. 11/14/12 - Presented to CMB, the CMB agrees with some merit of this COR, element of change not define clearly. RE will proceed with scoping the work. CLOSED; NO FURTHER ACTION	
1252-0045	09/11/12	34	LB - Panel W28 Wood Pile	2	CMB - 0137	Agree to Merit Agree to Cost	11/28/12 11/06/13	+81,000	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered what appeared to be a wood pile within Launch Box Diaphragm Wall Panel W-28. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$43,294 - Agreed	
1252-0046	01/00/00	36	MOS - Catch Basin @ south headwall	3				-0-	A catch basin on the NW corner of 4th and Folsom interfered with the construction of the MOS Headwalls. Removal of the catch basin was needed in order for the headwalls to be built. BIH claims the catch basin was not shown in the contract drawings. Closed due to improper notification. CLOSED; NO FURTHER ACTION	

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1252-0047	01/00/00	37	UMS - 12" steel pipe removal	3	CMB - 0132	Agree to Merit Agree to Cost	6/5/2013 08/28/13	+3,379	A 12" steel pipe at the north UMS headwall location interfered with the demolition of other existing UMS utilities. BIH claims the steel pipe was not shown in the contract drawings. Closed due to improper notification. 06/05/13 - Merit info presented to CMB - Agreed 08/28/13 - EE brought to CMB for cost NOT TO EXCEED \$3,379.19 - Agreed	
1252-0048	09/07/12	39	MOS - 16" Steel Pipe removal @ northeast headwall	3	CMB-0102	Agree to Cost	01/23/13	+2,952	SPM removed an unmarked 16" steel pipe from the excavation of the NE MOS Headwall. Construction of the MOS headwall could not commence without this utility being removed. BIH claims the 16" steel pipe was not shown in the contract drawings. 01/23/13 - EE brought to CMB for cost NOT TO EXCEED amount \$2,951.99 - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #14 - Final Cost \$2,951.99	CMOD #14 Approved
1252-0049	01/00/00	40	MOS - Extra Road Base @ northeast headwall	2				-0.	BIH's subcontractor Synergy Project Management (SPM) discovered what they believe to be an additional layer of road base under the existing asphalt at the NE MOS headwall location. The road base in this location was approx. 20" thick on a patch that was roughly 25' x 25'. Closed due to improper notification. CLOSED; NO FURTHER ACTION	
1252-0050	05/18/12	41	LB - Impacts due to live PG&E electrical lines (Synergy)	6	CMB-0098	Agree to Merit Agree to Cost	01/16/13	+1,217	Based on direction from the SFMTA, Synergy provided a full time flagger for one night shift of work @ the intersection of I-80 off-ramp near 4th/Bryant streets in order to assist PGE while they performed the abandoning of the existing live PGE electrical at the Launch Box location which was shown to be dead in the contract drawings. 01/13/13 - CMB agreed with Evaluation of Merit 01/16/13 - EE brought to CMB for cost NOT TO EXCEED \$1,245 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #10 - Final Cost \$1,216.60	CMOD #10 Approved
1252-0051	01/00/00	executed	Contract Amendment No. 2	1				(3,040,713)	COMPLETE; NO FURTHER ACTION: CMOD #02	CMOD #2 Approved
1252-0052	08/17/12	42	LB - Panel W25 Wood Pile	2	CMB-0138	Agree to Merit Agree to Cost	11/28/12 11/06/13	+116,785	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered an obstruction within Launch Box Diaphragm Wall Panel W-25. 11/28/12 - Evaluation of merit presented - CMB agreed 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$42,894 - Agreed	
1252-0053	08/22/12	43	LB - Panel W30 Wood Pile	2	CMB-0139	Agree to Merit Agree to Cost	11/28/12 11/06/13	+47,185	While performing excavation for the slurry walls at the TBM Launch Box, BIH's subcontractor CJA-NCC unexpectedly encountered an obstruction within Launch Box Diaphragm Wall Panel W-30. 11/28/12 - CMB agreed with Evaluation of Merit 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$14,197 - Agreed	
1252-0054	09/19/12	44	MOS - 16" steel pipe removal @ southeast headwall	3	CMB-0109	Agree to Merit Agree to Cost	12/06/12 02/27/13	+1,600	SPM removed an unmarked 16" steel pipe from the excavation of the NE MOS Headwall. Construction of the MOS headwall could not commence without this utility being removed. BIH claims the 16" steel pipe was not shown in the contract drawings. 12/06/12 - CMB agreed with Evaluation of Merit 02/27/13 - EE brought to CMB for cost NOT TO EXCEED \$1,800 - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. COMPLETE, NO FURTHER ACTION: CMOD #14 - Final Cost \$1,600	CMOD #14 Approved
1252-0055	06/09/12	45	Ret Shaft - Credit for reduced AT&T conduits	6				(331)	Credit to install 2 less conduits in the AT&T infrastructure at the Retrieval Shaft Joint Trench. The conduit notes on page JT-701 of the contract documents require 8 EA 4" conduits as laid out on the AT&T line. The reduced materials would result in 6 EA 4" conduits as a result. 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement. 09/18/13 - Contractor has submitted a Contract Claim No. 2 Haz Mat Removal - Caltrans site (COR 30, 45 & 75) for 708,929.00. The CMB directed the CM Team to draft a letter rejecting the claim.	

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					Approval Action	Approval Date				Actual/Forecast
1252-0056	09/25/12	46	UMS - Unmarked steel pipes (6", 12", 14") / Duct Bank	6	CMB-0103	Agree to Merit Agree to Cost	12/06/12 01/23/13	+7,475	While performing excavation for the utility demolition at the south UMS headwall BIH/Synergy discovered a 6" dia. steel pipe, 16" dia. steel pipe, 18" dia. steel pipe, and a concrete duct bank. BIH claims the utilities were not shown in the contract drawings. 12/06/12 - CMB agreed with Evaluation of Merit 01/23/13 - EE brought to CMB for cost NOT TO EXCEED \$7,461 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #16 - Final Cost \$7,475.28	CMOD #16 Approved
1252-0057	09/25/12	47	Ret Shaft - unmarked 10" steel pipe/duct bank	6	CMB-0104	Agree to Merit Agree to Cost	12/06/12 01/23/13	+2,108	Synergy Project Management (SPM), discovered an abandoned duct bank and 10" steel pipe which traveled underneath Columbus Avenue between Powell and Union Streets. Removal of the duct bank was necessary to complete the construction of the 36" RCP sewer main relocation work in this area. The status of the removal of the steel pipe is uncertain and may have not been necessary for the sewer main relocation. 12/06/12 - CMB agreed with Evaluation of Merit 01/23/13 - CMB - Not to Exceed \$2,201 04/01/13 - No reimbursement from SFWD COMPLETE; NO FURTHER ACTION: CMOD #13 - Final Cost \$2,108.04	CMOD #13 Approved
1252-0058	09/28/12	48	UMS - 3'x5' brick sewer at south headwall	6	CMB-0114	Agree to Merit Agree to Cost	12/06/12 03/13/13	+11,675	Synergy Project Management (SPM), discovered a brick sewer within the utility demolition limits at the UMS South headwall. The sewer encountered was larger than the 12" pipe which was shown in the contract drawings. Removal and disposal of the sewer commenced on September 26th and was completed by September 28th. Removal of the sewer was necessary for headwall construction. 12/06/12 - CMB agreed with Evaluation of Merit 03/13/13 - EE brought to CMB for cost NOT TO EXCEED \$12,474.65 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #16 - Final Cost \$11,675.00	CMOD #16 Approved
1252-0059	01/00/00	49	Ret Shaft - Tree trimming debris haul off	7				-0	Synergy Project Management (SPM), was requested by the SFMTA to remove and dispose of debris near the Northeast corner of Columbus Avenue and Union Street. The debris resulted from tree trimming activities performed by MUNI operations. CLOSED; NO FURTHER ACTION.	
1252-0060	10/10/12	50	Ret Shaft - 12" steel pipe removal at Union/Columbus	6	CMB-0110	Agree to Merit Agree to Cost	12/12/12 02/27/13	+2,200	On October 4th 2012, the Contractor discovered and removed a 12" Steel pipe at the intersection of Union Street and Columbus Avenue. Removal and disposal of the steel pipe was necessary in order to complete the proposed sewer re-location work near the Retrieval Shaft. Sewer work included the construction of a manhole which had been positioned in the field to avoid an existing MUNI duct bank. 12/12/12 - CMB agreed with Evaluation of Merit 02/27/13 - EE brought to CMB for cost NOT TO EXCEED \$2,600 - Agreed 04/01/13 - No reimbursement from SFWD COMPLETE; NO FURTHER ACTION: CMOD #13 - Final Cost \$2,200	CMOD #13 Approved
1252-0061	10/11/12	51	Ret Shaft - Elevation design conflict (30" low psi water / sewer)	3	CMB-0123	Agree to Merit Agree to Cost	03/13/13 7/10/2013	+13,386	03/13/13 - Merit info presented to CMB - Agreed 07/10/13 EE brought to CMB for cost NOT TO EXCEED \$21,100.	
1252-0062	09/07/12	53	Chinatown - Night drilling for instrumentation	7				-0	Closed.	
1252-0063	-	54	LB Class 2 Hazardous Material Haul Off (Phase 2)	2				+110,967	BIH trucking costs for Class 1 haul off generated at staging yard. Also see COR 030 regarding Class 1 Haz material haul off for Phase 1.	
1252-0064	10/10/12	PCC 4	PCC No. 4 - Ret shaft sewer pipe material change	1				-0	Change approximately 65 ft. of pipe for sewer bypass around the TBM Retrieval Shaft from 3' X 5' oval glass fiber reinforced pipe to a 48-inch (OD) HDPE SD-17 pipe with casing insulator placed inside a 54-inch diameter, ½-inch thick steel casing pipe. In addition, delete permanent sheet pile wall that was to have been placed along the west side of the trench to facilitate future maintenance access to the sewer along the shaft. CLOSED; NO FURTHER ACTION	
1252-0065	12/18/12	PCC 8	PCC No. 8 - UMS - Tree Removal	1				-0	SFMTA is directing removal of a tree at the northeast corner of Stockton and O'Farrell St. CLOSED; NO FURTHER ACTION	
1252-0066	10/10/12	PCC 5	PCC No. 5 - Ret Shaft Water Dist. Pipe Material Change	1				-0	Change material type of approximately 188 linear feet of 20-inch water line and approximately 125 linear feet of 30-inch water line from Welded Steel Pipe (WSP) to Ductile Iron Pipe (DIP) with TR-Flex joints. Install 6-inch thick concrete cap over 20-inch water line where cover is less than 24 inches. CLOSED; NO FURTHER ACTION	

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1252-0067	10/26/12	58	Ret Shaft - Additional 10" steel pipe removal	6	CMB-0111	Agree to Merit Agree to Cost	12/12/12 02/27/13	+700	Work is a continuation of work performed in COR 047. 12/12/12 - CMB agreed with Evaluation of Merit 02/27/13 - EE brought to CMB for cost NOT TO EXCEED \$860.85 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #13 - Final Cost \$700	CMOD #13 Approved
1252-0068	10/10/12		PCC No. 3 - General Detour Signage	1	CMB-0113	Agree to Cost	10/03/12 02/27/13	-0	Full closure of Stockton Street at Union Square was not anticipated under the 1252 Contract. The implementation of detour signage associated with the full closure of Stockton Street was to occur under the 1300 Contract. After the award of the 1252 Contract it was decided that a full closure of Stockton could be implemented to help reduce the headwall construction durations. As a result of the full closure the City Traffic Engineer has requested that a portion of the 1300 detour signs be installed now under the 1252 Contract to help alleviate traffic congestion and provide better detour signage around Union Square. 10/03/12 - PCC presented to CMB. CMB directed the RE to get a price quote from DPT do the work as a price comparison. This item will be brought back to the CMB at a later date. 11/14/12 - PCC presented to CMB. The CMB did not agree that Central Subway needed to take the lead on implementing detour signage, but suggested that the RE study the traffic activity and at the end of November report findings. 02/27/13 - Cost presented to CMB - Agreed to NTE \$6,152.60 CLOSED; NO FURTHER ACTION	
1252-0070	01/00/00	unsubmitted	Full Closure of 4th Street	1				TBD	SFMTA allowed full closure of 4th Street in order to facilitate construction of Launch Box Slurry Wall Construction Week Ending 11/04/12 - 11/11/12.	
1252-0071	11/07/12	61	LB - Panel P-17 Buried Obstruction	2	CMB-0125	Agree to Merit	01/02/13	+377	CJA-NCC discovered an unmarked buried water main at Panel P-17, approximately 6' below the guidewall at CTL Station 165+52, while performing slurry diaphragm wall excavation. 01/02/13 - CMB agreed with Evaluation of Merit. 07/24/13 - CMB agreed to cost of reconciliation change - NTE \$1,100 - Agreed	
1252-0072	11/14/12	62	LB - Panel P-9 Buried Obstruction	2	CMB-0140	Agree to Merit Agree to Cost	1/23/2013 11/06/13	+150,000	CJA-NCC discovered a buried obstruction while excavating slurry diaphragm wall panel P-9 at the Launch Box location. 01/02/13 - Presented to CMB for merit, CMB did not agree. CMB suggested inspector's daily tags as backup or reference the tag numbers in the write-up when force account work is involved. 01/23/13 - Revised write up presented CMB agreed with Evaluation of Merit. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$41,588 - Agreed	
1252-0073	11/08/12	63	UMS - 48" Steel Pipe @ southwest headwall	2		Agree to Merit	1/23/13		BIH/Synergy encountered a buried 48" Diameter steel pipe during work at the UMS S. Headwall. The pipe is located 6 feet from the south UMS headwall and 5 feet from the face of the curb. 01/02/13 - Presented to CMB for merit, CMB did not agree. CMB suggested inspector's daily tags as backup or reference the tag numbers in the write-up when force account work is involved. 01/23/13 - Revised write up presented CMB agreed with Evaluation of Merit COR has been changed to PCC09. CLOSED; NO FURTHER ACTION	
1252-0074	11/16/12	65	LB - Panel P-12 Buried Obstruction	2	CMB-0141	Agree to Merit Agree to Cost	1/23/2013 11/06/13	+150,000	CJA-NCC discovered a buried obstruction (water main) while excavating slurry diaphragm wall panel P-12 at the Launch Box location. 01/02/13 - Presented to CMB for merit, CMB did not agree. CMB suggested inspector's daily tags as backup or reference the tag numbers in the write-up when force account work is involved. 01/23/13 - Revised write up presented; CMB agreed with Evaluation of Merit. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$40,523 - Agreed	

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1252-0075	11/19/12	66	Retrieval Shaft - Unmarked 12" Steel Pipe	2	CMB-0112	Agree to Merit Agree to Cost	01/23/13 02/27/13	+3,700	While performing excavation for the joint trench at the retrieval shaft BIH's subcontractor Synergy Project Management (SPM) discovered an abandoned 12" dia. steel pipe which appears to be a Low Pressure Water Main. 01/23/13 - Merit info presented to CMB - Agreed 02/27/13 - EE brought to CMB for cost NOT TO EXCEED amount \$3,800 04/01/13 - No reimbursement from SFWD COMPLETE; NO FURTHER ACTION: CMOD #13 - Final cost \$3,700	CMOD #13 Approved
1252-0076	11/19/12	67	LB - Panel P-10 Buried Obstruction	2	CMB-0145	Agree to Merit Agree to Cost	1/23/2013 11/06/13	+18,000	CJA-NCC discovered a buried obstruction or concrete encased clay sewer pipe, approximately 7' below the top of the guide wall while excavating slurry diaphragm wall panel P-10 at the Launch Box location. 01/02/13 - Presented to CMB for merit, CMB did not agree. CMB suggested inspector's daily tags as backup be attached or reference the tag numbers in the write-up when force account work is involved. 01/23/13 - Merit info presented to CMB - Agreed 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$9,984 - Agreed	
1252-0077	12/21/12		PCC No. 7 - BART Temporary Annex Wall	1	CMB-0106	Agree to Cost	01/30/13	+15,500	SFMTA is requesting Contractor construct temporary wall for Bart Annex for SFMTA use. 01/30/13 - NOT TO EXCEED Amount \$15,380 COMPLETE; NO FURTHER ACTION: CMOD #11 - Final Cost \$15,500	CMOD #11 Approved
1252-0078	12/28/12		PCC No. 9 - UMS Headwall - Unknown Buried Pipe	1	CMB-0100	Agree to Merit Agree to Cost	01/16/13 01/16/13	+55,666	Related to COR 063. SFMTA instructed BIH to perform investigation into the 48" diameter steel pipe as it is a Differing Site Condition. 01/30/13 01/16/13 - EE brought to CMB for cost NOT TO EXCEED amount \$75,000 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #04	CMOD #4 Approved
1252-0079	01/09/13		PCC No. 10 - Relocation of TBM Retrieval Shaft - Excludes Button Up Costs	1					Modify Bid Item ST-4 (Construction of Base Bid Permanent Retrieval Shaft) and ES-4 (Ground Treatment at Retrieval Shaft Breakouts) to relocate the TBM Retrieval Shaft to 1731-1741 Powell Street - (Excludes Utility Button Up and Site Restoration) 01/09/13 - Draft PCC10 presented to CMB for Contractor Design Activity to be paid on Force Account. NTE value \$20K presented to CMB as a draft copy, final copy distributed to the Contractor increased to \$50K. 02/20/13 - COST IS NOT REFLECTED HERE - SCOPE IS FUNDED BY OTHER CPT 690 \$\$\$\$ 03/06/13 - Cost proposal received from BIH. SFMTA will develop a detail estimate of what is believed to be the scope of work. 03/13/13 - PCC 10 presented for CMB change approval of \$50K NTE amount to perform design activities. CMB requested CM team return with a more detailed estimate, Contractor's cost proposal of the bulleted items as listed on the PCC and backup documentation as evidence of work completed by the Contractor.	
1252-0080	12/19/12	0	Segment Measuring Frequency	7				(1,300,000)	RFI 203.1 - In light of gauging frequency, and the difficulties of erecting a ring with cast in gaskets, BIH JV alternately proposes to assemble a ring on the Master ring at an interval of every 500th ring cast. The assembled ring would be comprised of randomly selected segments, or segments chosen by the Engineer.	
1252-0081	09/09/12	0	F21 and Old Navy Instrumentation Proposal	7				-0.	Wang Technology is proposing instrumentation changes to the Liquid Level Sensors and Tilt Beams in the basements of Old Navy and Forever 21.	

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1252-0082	01/14/13	68	UMS – AT&T Vault Walkway @ N Headwall	2		Agree to Merit	01/16/13	+2,000	SPM discovered an walkway at the UMS north headwall. This walkway is located at the UMS north headwall and connects the south AT&T vault, located within the utility demolition limits, to an north AT&T, located outside of the utility demolition limits. SPM proposes to construct 3'x5' wall to the extents necessary, inside this walkway. The wall will be constructed of plywood and necessary reinforcement in order to create a bulkhead that will isolate the walkway and north vault from the south vault. 01/16/13 - CMB recommendation Contractor/Sub-contractor proceed on Force Account with a "Not to Exceed Amount" \$2K. 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #16 - Final Cost \$2,000.00	CMOD #16 Approved
1252-0083	11/08/12	69	UMS - Shoring Impacts due to 48" ATT Pipe at SW Headwall	2				-0-	On or about 10-25-13, BIH/Synergy were installing sheet piles at the UMS SW head wall to demolish the existing basement wall in conflict with the head wall construction per contract requirements. During the driving of the sheet piles, Synergy struck a buried object which was later identified as a 48" Diameter steel pipe. See PCC 9 and 11. Synergy thought they were hitting a buried tie-back which was shown on the contract drawings. Synergy did not know at the time that they were hitting a buried 48" pipe. After hitting the buried object, Synergy installed additional sheet piles and enlarged the excavation area in order to clear the buried object and drive the sheet piles to the minimum embedment depth. Due to the larger excavation, Synergy is claiming impacts as a result of encountering this DSC including shoring revisions and for installing additional sheets. 06/05/13 - CM TEAM NOTES: COR 069 reopened by BIH to cover cost for enlarging excavation due to encountering the 48" buried pipe. Previously COR 069 was to cover capping and removal of the pipe until it was changed to PCC 11. CLOSED; NO FURTHER ACTION.	
1252-0084	01/24/13		PCC No. 11 - UMS – Cap and Remove 48" Steel pipe	1	CMB-0105	Agree to Cost	1/23/13	+99,449	BIH/Synergy encountered a buried 48" Diameter steel pipe during work at the UMS S. Headwall. The pipe is located 6 feet from the south UMS headwall and 5 feet from the face of the curb. This PCC is to complete removal of pipe @ S. Headwall and Investigate and remove pipe if necessary @ the North headwall. 01/30/13 - EE brought to CMB for cost NOT TO EXCEED amount \$150,000 - Agreed 04/01/13 - CM team must obtain in writing from AT&T a utility agreement for cost reimbursement. COMPLETE; NO FURTHER ACTION: CMOD #09	CMOD #9 Approved
1252-0085	01/24/13	71	LB – Ramp Excavation Obstructions	2	CMB 0133	Agree to Merit Agree to Cost	4/3/2013 09/25/13	+5,594	BIHJV encountered numerous groups of wood piles while performing excavation of the Launch Box ramp. The wood piles are approximately 16" in diameter and are located along the north and south perimeter walls of the Launch Box ramp excavation area. 01/30/13 - CMB did not agree with merit of change suggestion the RE negotiate w/Contractor for another concession. 04/03/13 - COR merit evaluation presented to CMB again due to a greater number of obstruction encountered. CMB - Agreed to Partial Merit. 09/25/13 - EE brought to CMB for cost NOT TO EXCEED amount \$5,700.	
1252-0086	02/08/13	72	Ellis Shaft Jet Grout Obstruction	2				-0-	On February 6th, 2013, CJA/NCC was drilling column R3 of the Ellis Shaft and reported hitting an obstruction 52ft below existing grade. The obstruction reportedly caused the jet grout monitor to shear off. At this time it is not known what the obstruction is or if it caused the monitor to be sheared off. CLOSED; NO FURTHER ACTION	
1252-0087	02/14/13	73	MOS - 16" Pipe removal @ NE Headwall	2	CMB-0118	Agree to Merit Agree to Cost	3/13/2013 05/08/13	+940	BIH-JV's subcontractor, Synergy, encountered an abandoned 16" pipe while installing the 12" waterline at the north headwall of Moscone. The pipe was at the same elevation as the new 12" waterline and therefore needed to be removed to facilitate the installation of the new 12" waterline. 03/13/13 - Merit info presented to CMB - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. 05/08/13 - CMB agreed to cost of reconciliation of change on FA - NTE \$989.00 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #17	CMOD #17 Approved
1252-0088	NA		Whole Foods - Unknown brick obstruction in Comp Grout Trench	0				-0-	BIH has decided not to submit a COR as production was not significantly impacted. CLOSED; NO FURTHER ACTION	

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1252-0089	03/11/13	75	Hazardous Waste Disposal Denial - Spoils Containment Cost Impacts	7				+326,971	BIH submitted change order request (COR) 030 seeking reimbursement for the demonstrated additional costs of excavating, handling and disposing of excavated material found to contain hazardous material to a permitted landfill over that which can be disposed of at an unregulated dump site. The SFMTA refused reimbursement for such costs under the hazardous waste bid item allowance. As a result of this determination, BIH is modifying its approach to the construction and handling operations of tunnel spoils generated during tunneling operations. 09/18/13 - Contractor has submitted a Contract Claim No. 2 Haz Mat Removal - Caltrans site (COR 30, 45 & 75) for 708,929.00 CMB directed the CM Team to draft a letter rejecting the claim.	
1252-0090	03/08/13	76	MOS - 16" Pipe removal @ SE Headwall	2	CMB-0119	Agree to Merit Agree to Cost	03/20/13 05/08/13	+1,116	BIH-JV's subcontractor, Synergy, encountered an abandoned 16" pipe while installing the 12" waterline at the south headwall of Moscone. The pipe was at the same elevation as the new 12" waterline and therefore needed to be removed to facilitate the installation of the new 12" waterline. 03/20/13 - Merit info presented to CMB - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. 05/08/13 - CMB agreed to cost of reconciliation of change on FA - NTE \$1,116.00 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #17 - Final Cost \$1,116.00	CMOD #17 Approved
1252-0091	03/06/13	77	Comp Grout - WFB-5 Drilling Obstruction	2	CMB-0126	Agree to Merit Agree to Cost	04/03/13	+6,126	On March 06,2013, BIHJV encountered a potential Differing Site Condition (DSC) while drilling the compensation grouting hole WFB-5 located at Whole Foods and more precisely at CTL Station 160+38. This potential DSC consists of an obstruction located at a depth of 9' below grade which prevented CJA-NCC from drilling any further. 04/03/13 - Merit info presented to CMB - Agreed 07/24/13 - CMB agreed to cost of reconciliation change - NTE \$6,125.93 - Agreed - Final Cost \$1,116.00	
1252-0092	03/07/13	78	Comp Grout - WF & ATT	2		Agree to Merit	3/20/13	-0	BIHJV encountered multiple potential Differing Site Conditions (DSC's) of varying dimensions while excavating the compensation grouting trench for the drill holes located at Whole Foods and AT&T. 03/20/13 - Merit info presented to CMB - CMB agreed there was No Merit for this contract change. 05/24/13 - CM Team update - Contractor no longer pursuing due to failure to provide proper notification. CLOSED; NO FURTHER ACTION.	
1252-0093	03/07/13	79	Comp Grout - Old Navy	2	CMB-116	Agree to Merit Agree to Merit (addl) Agree to Cost	03/20/13 04/24/13 04/26/13	+276,462	BIHJV encountered a potential Differing Site Condition (DSC) while sawcutting the pavement for the compensation grouting holes located at Old Navy. The original design was to drill the compensation grout holes between two existing PG&E lines. It was discovered in the field that there is not enough clearance between the existing PG&E lines for the original design to be possible and multiple other potential DSCs were also encountered including, but not limited to, tile duct banks, concrete of unknown contents, and steel pipes. 03/20/13 - Merit info presented to CMB - Agreed 04/01/13 - CM team must obtain in writing from PG&E a utility agreement for cost reimbursement. 04/24/13 - Addl info presented for rationale for Contractor to demob and remob drill rig due to insufficient clearance between existing PG&E lines to drill the grout holes - Agreed 04/26/13 - COR presented at a special CMB mtg to notifying CMB of need to have Contractor perform work on FA4 for a NTE amount of \$70K. 05/15/13 - Addl request for funds to cover (Inefficiencies) - agreed for a not to exceed amount \$152,000.	
1252-0094	03/12/13	80	MOS - Asbestos Wrapped 20" water line @ Headwalls	2		Agree to Merit	04/03/13	-0	BIHJV's subcontractor, Synergy Project Management was performing the installation of low pressure water distribution piping at the Moscone north headwall and discovered an unknown material wrapping around the existing 20" waterline which appeared to contain asbestos material. 04/03/13 - Merit info presented to CMB - Agreed 07/10/13 - CM Comment - To be paid out of Environmental Mitigation allowance GE-8.	

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**CENTRAL SUBWAY PROJECT**  
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Item #	Date Initiated		Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number
						Approval Action	Approval Date			
1252-0095	03/11/13	81	12" Waterline Tee Connection Location (MOS South)	2		Agree to Merit	04/03/13	+3,001	BIHJV's subcontractor, Synergy Project Management, encountered a potential Differing Site Condition (DSC) upon exposing the tie-in point for the 12" waterline at the south headwall of Moscone. The potential DSC consists of two 45 degree elbows in the existing 12" waterline at the point of the tee connection. SFWD has surveyed the field conditions and indicated that the tee connection will need to be moved to the west. 04/03/13 - Merit info presented to CMB - Agreed COMPLETE; NO FURTHER ACTION: CMOD #17 - Final Cost \$3,000.00	CMOD #17 Approved
1252-0096	03/13/13	82	MOS 20" Conflict with 16" AWSS @ South Headwall	2				+50,000	Upon exposing the existing 20" waterline at the south headwall of MOS, in preparation for installing the new 20" waterline shown on WD-403 and amended by RFI 0155, BIHJV's subcontractor Synergy Project Management encountered a potential DSC. The potential DSC consisted of a crossing conflict between the new 16" AWSS, the new 20" waterline, and the existing 6" PE gas. These three utilities cross at multiple locations however the existing depths are roughly the same.	
1252-0097	03/19/13	83	Ellis Shaft Concrete Obstruction	2	CMB-127	Agree to Merit Agree to Cost	04/17/13 07/24/13	+1,420	During excavation for the Ellis Street Shaft, BIHJV's subcontractor, CJA-NCC, encountered a concrete obstruction at approximately 10 feet below grade. CJA-NCC spent 4 hours removing the obstruction. 04/17/13 - Merit info presented to CMB - Agreed 07/24/13 - CMB agreed to cost of reconciliation change - NTE \$1,424.52 - Agreed	
1252-0098	03/16/13	84	Crate & Barrel Water Intrusion	2				-0-	Water was discovered seeping into the Crate & Barrel basement in concert with secant pile installation at Pile #SRV-A. At the time, pile excavation was approximately 90 feet deep. BIHJV's subcontractor, CJA-NCC, stopped pile installation and placed lean concrete within the pile excavation. This allowed them to continue secant pile construction on other piles until which time SFMTA could provide appropriate mitigation for the water leak. 07/03/13 - CM Teams merit denied, notice not received within 7 days. CLOSED; NO FURTHER ACTION	
1252-0099	04/05/13		PCC No. 12 - Modifications to Tunnel Alignment at Market Street	1	CMB-131	Agree to Merit Agree to Cost (Conditionally)	08/14/13 08/14/13	+292,000	IFB Tunnel Profile conflicts with micro-piles installed under Contract 1251. Tunnel Profile needs to be revised (lowered) such that TBM and Tunnel structure is below previously installed micro-piles. Contractor shall revise compensation grouting design to conform to Contract requirements given the revised tunnel alignment. 04/03/13 - CMB agreed to Micropile profile change being forwarded to the Contractor. 04/10/13 - Updated alignment was presented superseding 04/03/10 version - (lowered 4.9%) 04/10/13 - Original Contractor submittal needs to be evaluated to verify the new alignment has been incorporated. 08/14/13 - Merit Evaluation and PCC 12 Cost NTE (Construction portion) was presented to the CMB for approval. The CMB agreed to merit contingent upon verification signature by the Designer (DP1) of additional work and cost associated with the change. NTE Value \$41,470.01 - Agreed	
1252-0100	03/26/13	85	SFWD Impacts at MOS North	2				+345,600	BIHJV's subcontractor CJA-NCC is in the process of constructing the Moscone Station headwalls, the sequence of construction is such that it requires the 12" and 20" waterlines on the eastside of 4th street to be rerouted prior to completing the headwalls. In accordance with the Contract the San Francisco Water Department (SFWD) is responsible for completing the waterline reroutes (chlorination and tie-in) in a specified duration. BIHJV claims the SFWD failed to complete this work in the contractual durations. As a result, BIHJV claims the headwall construction operation has been incurring stand by costs. 04/10/13 - Item reviewed at CMB meeting during review of Trend/Change Log COR's. CM team contends this is not a valid change and will reject the Contractor's claim of merit.	
1252-0101	01/28/13	87	Cross Passage 5 - Value Engineering Change Proposal	5				(2,674)	As indicated in Contract Drawing No. ES-144, ground treatment for the excavation of CP5 was anticipated to be performed using jet grouting methods. BIHJV proposes to perform ground freezing from within the tunnels as an alternative ground treatment methodology, thereby avoiding the need to disrupt and impact the public by occupying 4th Street for an extended period. 04/24/13 - Item reviewed at CMB during review of Trend/Change Log COR's. CMB suggested a credit from the Contractor should be received for Bid Item ES-5. In addition suggested a minimal review of the BIH's proposed ground freezing method be done by the PB.	

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1252-0102	04/09/13		UMS - Secant Pile SRV-J Obstruction DSC	2					BIHJV's subcontractor, CJA-NCC, encountered a potential Differing Site Condition (DSC) while drilling for UMS Secant Pile #SRV-J. The DSC consists of what appears to be an abandoned utility pipe located approximately 10 feet deep. 04/24/13 - Information presented to CMB during review of Trend Log. CM Team states COR merit -0- will be rejected due to notification of change not met in timely manner per the contract docs. 05/24/13 - CM Team update - Contractor no longer pursuing due to untimely notification of event. CLOSED; NO FURTHER ACTION.	
1252-0103	04/18/13	88	SFWD Impacts at MOS South	2					BIHJV's subcontractor CJA-NCC is in the process of constructing the Moscone Station headwalls, the sequence of construction is such that it requires the 12" and 20" waterlines on the eastside of 4th street to be rerouted prior to completing the headwalls. In accordance with the Contract the San Francisco Water Department (SFWD) is responsible for completing the waterline reroutes (chlorination and tie-in) in a specified duration. BIHJV claims the SFWD failed to complete this -0- work in the contractual durations. As a result, BIHJV claims the headwall construction operation has been incurring stand by costs. 05/08/13 - Information presented to CMB during review of Trend Log. CM Team states COR will be rejected due to no merit. This item is not on the critical path. 06/17/13 - Contractor no longer pursuing. CLOSED; NO FURTHER ACTION.	
1252-0104	06/06/13	PCC 13, FA CO 5	PCC 13 - SFWD Excavation, Support and Backfilling	1	CMB-0122 CMB 0128	Agree to Cost Agree to Addl Cost	6/19/13 08/09/13	+20,000	Excavation, support and restoration work at two locations required to facilitate fitting/valve installation work by the San Francisco Water Department. Installation of valves are to facilitate fire service connection cutover and cutting off of the existing water main. The existing water main is in the footprint of the UMS station piles and is to be abandoned. 06/05/13 - CMB agreed to change required; work must be completed sometime in June 2013 06/19/13 - Cost estimate presented; CMB agreed for a NTE of \$20K 08/07/13 - CMB viewed the estimate requesting the narrative be rewritten to tell the entire story of what has generated the change. 08/09/13 - Special CMB Mtg to clarify direction and approval to proceed with direction to the Contractor on extra work contained in PCC 13 (Macy's Backflow work). CMB approved additional work and scope for a NTE value of \$14,100 for a total change value of \$34,100 COMPLETE; NO FURTHER ACTION: CMOD #18	CMOD #18 Approved
1252-0105	05/30/13	90	Abandoned Well at MOS Panel N-4	2				+450,000	BIHJV's subcontractor, CJA-NCC, discovered an obstruction that appears to be an abandoned monitoring well within the Moscone Slurry Wall Panel "N-4". Contractor claims impacts resulting from this alleged DSC include, but are not limited to, excavation inefficiency, the required backfilling of the panel with lean concrete on multiple occasions, and re-excavations of the panel. 06/19/13 - Information presented to CMB during review of Trend Log. CM Team states COR will be rejected due to several reasons of "no merit "	
1252-0107	12/13/12	92	Credit - North headwall panel N-2 at Moscone	7				(4,943)	During installation of the reinforcement cage at panel N-2 at the Moscone North Headwall a 1-inch dia. Polyester sling used for lifting could not be detached from the reinforcement cage. The slings were then casted in-place. SFTMA requested a credit CO for the CN 1300 contractor to demolish the concrete and slings and replace the structural concrete. 07/10/13 - NCR condition of the wall be provided in order to prepare engineer's estimate for credit amount. CLOSED; NO FURTHER ACTION.	
1252-0108	04/11/13	91	Credit - Secant pile SRV-H, UMS south headwall	7				(263)	During concrete placement, the dummy steel beam that was used to hold down the secant pile steel beam reinforcement for pile SRV-H @ the UMS south headwall could not be removed and was poured in-place. SFTMA requested a credit CO for the CN 1300 contractor to demolish this beam between El. 16.66' and the beam top. CLOSED; NO FURTHER ACTION.	

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1252-0109	09/24/12	93	Credit - 65 feet of water pipe not installed at MOS	7				+86,882	Contract Drawings WD-403 & WD-404 shows the 20" low pressure water line cutting through an area in the intersection where the joint trench is in the way. BIHJV's subcontractor, Synergy Project Management, with SFMTA's concurrence, installed the water line tie-in per a configuration which resulted in approximately 65' less line required to be installed. SFTMA requested a credit CO to eliminate 65' of the line.	

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1252-0110	02/06/13	94	Credit - Switching of the 12" and 20" lines at MOS	3				(30,466)	It was discovered that the field locations of the 12" water line and 20" water line were actually "switched" from the location shown in contract drawing WD-402 Rev.0. SFMTA requested a credit CO as less 20" water line was required to be installed than was originally anticipated.
1252-0111	07/16/13	95	Green St Shaft – Design Cost Impacts for Jet Grout	7				-0-	BIHJV: "BIH and CJA-NCC are in receipt of the SFMTA's revised submittal review comments for Submittal No 31.43.14-003 (review cycle 3) dated July 10, 2013, where the SFMTA determined that the previously submitted content does not fulfill the contract requirements. The submittal status was changed from "Approved" on March 21, 2013, to "Disapproved - Resubmit" on July 10, 2013. The SFMTA states that the submittal was reviewed in further detail and it was determined the submittal didn't fulfill the contract requirements. This new submittal determination will result in additional costs to the SFMTA." 07/24/13 - Information presented to CMB during review of Trend Log. CM Team preparing letter of no merit, due to disagreement of dwg shown.
1252-0112	07/16/13	96	Micropiles @ UMS Tangent Pile SRB-H	2	Agree to Merit	07/31/13		-0-	Excavation for battered secant pile SRB-H began on July 12. At approximate depth of 30', CJN reported hitting an obstruction. Two, 36" and 45" long, No. 18, Dywidag bars were discovered within spoils of the first bite of the clamshell bucket. The 2-1/2" diameter bar was consistent with the micro piles installed in the previous contract. 07/24/13 - Draft merit evaluation presented to CMB. CM Team reported further investigation needed to verify survey location of micropiles. CMB requested a specific dwg of 1251 As Built of piles be presented at next CMB. 1251 Contractor will be put on notice referencing the CS CN1251 Ltr. #018 - Future Potential Costs Due to Incorrect Micropile Placement. 07/31/13 - Merit Approval presented to CMB - Agreed. Notification of Possible Micropile Obstruction to CN1252 and possible CN1300 work was sent to CN1251 Contractor.
1252-0113	01/09/13		Relocation of TBM Retrieval Shaft - Columbus Ave. Restoration	1				+223,820	Modify Bid Item GE-3 (Utility Demo, Sewer, Road Demo, Pavement Restoration, etc.) to relocate the TBM Retrieval Shaft to 1731-1741 Powell Street - (Includes Utility Button Up and Site Restoration Only) 07/24/13 - Information presented to CMB during review of Trend Log. CMB requested LS Bid Item be broken-down based on contract work to see how much money would be put in to perform the restoration button up cost. In addition the CMB requested the item description be change to "Columbus Ave. Restoration" in order to not confuse it with PCC 10 Retrieval Shaft work.
1252-0114	07/24/13	97	Ellis Shaft – TAM ES2-01 and ES2-17	2	Agree to Merit	08/28/13		-0-	BIHJV's subcontractor, CJA-NCC, discovered gravel material within the drill spoils from two separate Ellis Shaft TAM installations, TAM ES2-01 and ES2-17 08/14/13 - Item reviewed at CMB during review of Trend/Change Log COR's. GBR's will be checked to see if gravel material is known to exist in the drill location. 08/28/13 - Merit info presented to CMB - Agreed
1252-0115	08/07/13	98	Ellis Shaft – TAM ES2-16	2	Agree to Merit	08/28/13		-0-	BIHJV's subcontractor, CJA-NCC, discovered gravel material within Ellis Shaft TAM installations, TAM ES2-1 08/14/13 - Item reviewed at CMB during review of Trend/Change Log COR's. GBR's will be checked to see if gravel material is known to exist in the drill location. 08/28/13 - Merit evaluation presented to CMB - Agreed
1252-0116	08/08/13	99	MOS – AWSS Vault Over pour @ South Headwall)	2	Agree to Merit Agree to Cost	09/25/13		+2,394	BIHJV: "While performing AWSS work at the MOS South Headwall, Synergy crews found the mechanical joint Tee bolts, required for the AWSS point of connection, to be completely encased in concrete. The concrete encasement appeared to be concrete over pour remaining from a previous contractor's AWSS vault wall pour." 08/14/13 - Item reviewed at CMB during review of Trend/Change Log COR's. 09/25/13 - Merit evaluation presented to CMB - Agreed. 09/25/13 - Eng. Est. presented to CMB for cost NOT TO EXCEED \$2,400 - Agreed
1252-0117	08/15/13	100	Ellis Shaft TAM ES2-08	2	Agree to Merit	08/28/13		-0-	BIHJV: "August 12,2013, BIHJV's subcontractor, CJA-NCC, struck a hard unknown object while drilling the Ellis Shaft TAM ES2-08." 08/28/13 - Merit evaluation presented to CMB - Agreed CMB requested a investigation plan to be

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1252-0118	08/23/13	101	Ellis Shaft TAM ES2-11	2				-0-	BIHJV's subcontractor, CJA-NCC, discovered gravel material within Ellis Shaft TAM installations, TAM ES2-11 09/11/13 - Viewed at CMB during review of Trend/Change Log COR's.	

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1252-0119	09/03/13	102	UMS Jet Grout Column 18 DSC Headwall	2				-0-	While drilling down on column #18 at the UMS south headwall, BIHJV's subcontractor, CJA-NCC, encountered a hard unknown obstruction. 09/11/13 - Item reviewed at CMB during review of Trend/Change Log. 10/16/13 - DSC presented for merit approval - No action was taken by the CMB. The CM will investigate if the 1252 Contractor received the 1251 As built information by the start of operations.	
1252-0120	09/05/13	103	Retrieval Shaft Additional Slip Lining Pipe Qty	4				+28,625	RFI 251.1 SFMTA Response: Specification 33 31 00 1.01.A.22 Sewer Work, states, " Sliplining existing 3-foot by 5-foot brick sewer with 16-inch and 24-inch diameter HDPE Pipe (polyethylene pipe) nominal size SDR 26." As such, sliplining is to be performed for both the 16" and 24" diameter HDPE pipe. Branches indicated in the supplied sketch to be relined along Stockton and Columbus are acceptable. In addition, the 33-ft long branch that crosses the alignment at CTL 86+35 must also be relined. Acceptable alternative (to fused HDPE) pipe materials and sizes for this branch can be proposed by BIH. BIH shall submit the propose alternative for this branch of pipe for SFMTA review. The use of coupled PVC is not acceptable." 09/11/13 - Item viewed at CMB during review of weekly Trend/change log. No dwg for this work only a table. CM Team working with designer to make the determination.	
1252-0121	09/06/13	105	Retrieval Shaft Relocation of Seismograph	1				+6,000	BIHJV: "BIHJV's instrumentation subcontractor, Wang, was directed to relocate one of the vibration monitoring devices (Seismograph) installed at the Retrieval Shaft area to monitor vibration induced by demolition operations of the existing Pagoda Theater building." 09/11/13 item reviewed at CMB meeting during review of weekly Trend/Change log. CMB doesn't agree with the relocation charge and requested a better definition of the item.	
1252-0122	04/19/13	89	UMS - Suspended Remobilization of Jet Grout Rig	7				+52,305	BIHJV: "The SFMTA directed BIHJV/CJA-NCC to suspend the planned remobilization of the Jet Grout Rig at the UMS location due to external affairs with local UMS businesses." 09/11/13 - Item reviewed at CMB during review of weekly Trend/change log. CMB questioned the timeliness of the COR also requesting a better definition of the item.	
1252-0123	09/10/13	104	Retrieval Shaft - Additional Sewer Slip Lining 16" HDPE Pipe	4				+98,337	BIHJV: "BIHJV submitted RFI Nos. 275, 275.1 and 275.2 requesting clarification about specific sewer sliplining runs at the Retrieval Shaft, see Attachment Nos. 2, 4 and 6. The SFMTA responded, via RFI No. 275.2, stating that the sliplining is to be installed in a stacked configuration with the 24" over the 16" HDPE pipe, see Attachment No. 7. BIHJV and Synergy believe the SFMTA's response to install stacked HDPE sliplining pipes is additional work as the contract documents do not support this statement." 10/02/13 - Item reviewed at CMB during review of the weekly Trend/change log update. The CM states the DSC maybe eliminated. Waiting for a response from PUC now there is a as built condition. Letters are being written between SFMTA and SFPUC.	
1252-0124	09/17/13		Retrieval Shaft Sewer Slip Lining Work	2		Agree to Merit	9/25/2013	TBD	In preparation to beginning sliplining work at the intersection of Columbus/Green/Stockton, the Contractor performed a site investigation of the existing 3'x5' brick sewer. The Contractor discovered 4 unknown pipes intersecting the sewer 09/25/13 - DSC presented for merit approval - Agreed. CMB directed the CM Team to ask the Contractor for recommendation to slipline as much of the sewer line as possible without rerouting the conflicting pipe lines.	
1252-0125	10/24/13		Modifications to AWSS Facilities at 4th and Bryant Streets	1				(26,904)	Deletion of 12" AWSS diagonal sleeved pipe crossing and hydrant lateral. Installation of 12" AWSS restrained pipe and hydrant lateral. 10/16/13 - Draft PCC reviewed at CMB. The Board is in agreement with the modification. 10/23/13 - Engineers estimate for new work \$136,478 and deleted work (\$163,382) was presented to the CMB. PCC will be forwarded to the Contractor to price the work. In addition a cost estimate will be done for the work which would have been under the 1300 contract.	

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1252-0126	10/14/13		Ellis shaft and Old Navy Grouting	2				-0-	BIHJV's subcontractor, CJA-NCC, claims to have discovered material (cemented zones) different than that described in the Geotechnical Baseline Report in the Ellis Shaft and Old Navy Grouting Zones. 10/23/13 - Item reviewed at CMB during review of weekly Trend/Change log. The CM stated this item will be rejected, due to a lack of information being supplied by the Contractor to validate their potential COR.	

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1252-0127	10/25/13	FA CO 8	Remove and replace material at Retrieval Shaft CSM wall	1				+22,300	Contractor to remove hazardous material (approximately 250 CY) found in the footprint of the Retrieval Shaft Cutter Soil Mix (CSM) wall and replace with both clean material found on-site (approximately 190 CY) and import material (approximately 60 CY). 10/30/13 - Item reviewed at CMB during review of weekly Trend/Change log. Work to proceed on FA for a NTE of \$22,300.	
1252-0128	10/03/13	FA CO 7	Acceleration of Work Activities at Retrieval Shaft	1				+5,000	SFMTA to compensate BIHJV for premium time incurred on October 5th, 2013 to accelerate the completion of the site work and soundwall at the Retrieval Shaft.	
1252-0129	10/30/13		UMPs on 96-inch Sewer	2				-0-	BIHJV's subcontractor Wang Technology claims to have encountered a DSC (brick structure) while drilling for utility monitoring points on Howard Street.	
<b>Contract 1252 Totals</b>								+968,558	<b>Total Changes and Potential Change (trends) to the contract are currently \$968,558</b> <b>Out of Scope Changes to the Contract for Relocation of TBM (Trend 79, PCC 10) to be paid out of CPT690, funded separately. Not include in total above and being tracked separately from original Program Costs of \$1.5783B</b>	
<b>CONSTRUCTION TRENDS (Based on #1252 Trending Log and CMod) - SUBTOTALS:</b>								+968,558	<b>The \$968,558 represents an UNDERRUN of allocated contingency.</b> <b>Current Balance = (33,658,463 - 968,558 = \$32,689,905). This does not include potential reimbursements from utilities</b>	

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<b>DESIGN TRENDS</b>									
FD-001	07/31/10	084-0001	Narrowing of Platform at UMS	1	CMB-0006	Agree	08/04/10	(800,000)	[In "Current Forecast" - Sep2010 Cost Report.]
FD-002	07/12/10	084-0002	Redux of Station Emergency Ventilation Fans (UMS)	1	CMB-0009	Agree (Conditionally)	08/25/10	(2,000,000)	Further actions: Designer required to receive Fire/Life/Safety approval before proceeding with this change. Designer to allocate cost impacts by Station (Current figures are "place-holders.". [In "Current Forecast" - Sep2010 Cost Report.]
FD-002	07/12/10	085-0001	Redux of Station Emergency Ventilation Fans (CTS)	1	CMB-0009	Agree (Conditionally)	08/25/10	(500,000)	Further actions: Designer required to receive Fire/Life/Safety approval before proceeding with this change. Designer to allocate cost impacts by Station (Current figures are "place-holders.". [In "Current Forecast" - Sep2010 Cost Report.]
FD-002	07/12/10	086-0001	Redux of Station Emergency Ventilation Fans (MOS)	1	CMB-0009	Agree (Conditionally)	08/25/10	(500,000)	Further actions: Designer required to receive Fire/Life/Safety approval before proceeding with this change. Designer to allocate cost impacts by Station (Current figures are "place-holders.". [In "Current Forecast" - Sep2010 Cost Report.]
FD-003	07/31/10	085-0002	Lowering of CTS	1	To be verified	Info Only	08/25/10	+7,000,000	Presented to CMB for information/consideration.
FD-004	07/29/10	084-0003	UMS Structural Configuration	1	CMB-0007	Agree	08/18/10	(8,000,000)	[In "Current Forecast" - Sep2010 Cost Report.]
FD-005	08/22/10	084-0004	UMS Alternate Station Access/Vent Shaft @ Union Square	1	CMB-0010	Agree	12/29/10	(22,500,000)	Documentation to be filed.
FD-006	08/03/10	084-0005	Station Headwalls - UMS	1	CMB-0008	Agree	08/18/10	-0-	
FD-006	08/03/10	086-0002	Station Headwalls - MOS	1	CMB-0008	Agree	08/18/10	-0-	
FD-007	08/03/10		Cross-passages	1	CMB-0018	Agree	09/15/10	-0-	
FD-008	07/30/10		Trolley Re-route @ Columbus & Powell	1	CMB-0017	Agree	09/15/10	+2,000,000	
FD-009	10/06/10	082-0003	ECP to Modify Sidewalk Vault Demolition and Construction Sequence to Facilitate Construction of Joint Utilities Trench and Future UMS Station	1	CMB-0019	Agree	12/15/10	+3,000,000	
FD-010	10/06/10	082-0004	Redesign Stockton Street Sanitary Sewer to conform to SFPUC Sewer Criteria that preclude placement of relocated sanitary sewer under sidewalks	1	CMB-0020	Agree	11/17/10	+2,000,000	
FD-011	10/06/10	082-0005	Reconfigure Routing of Water, Sewer and Gas laterals from buildings on north side of Ellis Street	1	CMB-0021	Agree	11/17/10	+500,000	
FD-012	10/06/10	082-0006	Recognize cost transfers from design allowances allocated to contingency to explicit line items in final design estimates	1	CMB-0022	Disagree	11/17/10	-0-	
FD-013	10/06/10	082-0007	Increase Extent of Sub-sidewalks Vault Secondary Closure Walls and Waterproofing	1	CMB-0023	Agree	11/17/10	+4,100,000	
FD-014	10/06/10	082-0008	Include OCS system for rerouting trolley buses to Fifth Street	1	CMB-0024	Agree	12/15/10	+3,100,000	
FD-015	10/06/10	082-0009	Subsidewalk Vault Secondary Closure Walls for Buildings at 800 Market and 838 Market	1	CMB-0025	Agree	11/17/10	+1,000,000	
FD-016	10/06/10	085-0003	Underpinning of Mandarin Tower	1	CMB-0011	over taken by FD-021	01/19/11	+5,000,000	Additional Information Pending.
FD-017	10/06/10	085-0004	CTS Ground Improvement	1	CMB-0012	over taken by FD-021	01/19/11	+10,300,000	Additional Information Pending.
FD-018	10/06/10	084-0006	UMS Apple Store Entrance	1	CMB-0013	Disagree	11/10/10	-0-	Additional Information Pending.
FD-019	10/06/10	086-0003	MOS TOD Configuration	1	CMB-0014	Agree	11/10/10	TBD	
FD-020	10/06/10	084-0007	UMS Emergency Stair #4 Relocation	1	CMB-0015	Agree	11/10/10	TBD	
FD-021	01/14/11	085-0005	CTS Lowering and Stations Reconfiguration	1	CMB-0027	Agree	01/19/11	(18,000,000.00)	Agreement with changes to project configuration only. Additional Information required related to cost and schedule impacts. No agreement on Design cost impact, Design costs directly related to this change to be tracked separately
FD-022	02/16/11	084-0008	Sewer Replacement along Geary & O'Farrell	1	CMB-0029	Agree	02/23/11	(134,000)	This trend has both an EPC number as well as a Construction Trend Number. See also Construction Trend No. 1251-0003

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FD-023	11/17/10	087-0001	Emergency walkways through crossover cavern changed from outside the main tracks to between the main tracks.	1	CMB-0032	Agree	07/27/11		
FD-024	11/17/10	087-0002	Diamond crossover on surface segment to a tandem (universal) crossover.	1	CMB-0033	Agree	08/24/11	(350,000)	
FD-025	04/13/11	083-0001	Bid Option for TBM Retrieval Shaft		CMB-0034	Agree	04/13/11	(10,000,000)	Will require changes to Bid Schedule to incorporate Traffic, Utilities and Pavement Demo/Restoration as incidental costs to the Bid Option. Estimated DP1 cost impact is approx. 80-100 hrs. of engineering time.
FD-026	05/31/11	084,085,086	Air Replenishment System for Stations	1	CMB-0040	Agree	07/13/11	+1,245,000	Install air replenishment system at MOS, CTS and UMS to address the requirements of the SFFD Bulletin 5.07. The air replenishment system will be used to fill firefighter's self-contained breathing apparatus during firefighting operations in the three subway stations.
FD-027	07/21/11	082-0010	1 Stockton street (Apple Store) Secondary Closure Wall		CMB-0043	Agree	08/03/11	+500,000	1) Add secondary closure wall to supplement recently completed primary closure wall built by owner to isolate the sub-sidewalk basement of 1 Stockton Street (Apple Store). 2) Modify position of joint trench (and all associated conduits, ducts etc.) for secondary closure wall to be constructed.
FD-028	08/03/11	086-0004	MOS Revisions to Emergency Ventilation Requirements		CMB-0052	Agree	09/07/11	+500,000	Changes will extend the date of the 90% (pre-final) submittal by 20 working days and the 100% (final) submittal by 40 working days. CMB did not approve a time extension for 90% or 100% submittal delivery. <b>Project Controls estimated \$321,645.</b>
FD-029	08/08/11	085-0006	CTS Revisions to Emergency Ventilation Requirements		CMB-0053	Agree	09/07/11	+1,000,000	Changes will extend the date of the 90% (pre-final) submittal by 20 working days and the 100% (final) submittal by 40 working days. CMB did not approve a time extension for 90% or 100% submittal delivery. <b>Project Controls estimated \$411,895.</b>
FD-030	08/08/11	084-0009	UMS Revisions to Emergency Ventilation Requirements		CMB-0054	Agree	09/07/11	+1,000,000	Changes will extend the date of the 90% (pre-final) submittal by 20 working days and the 100% (final) submittal by 40 working days. CMB did not approve a time extension for 90% or 100% submittal delivery. <b>Project Controls estimated 733,420.</b>
FD-031	10/31/11		Accessibility Improvements at the SE corner of Union Square (UMS)						
FD-032	10/31/11		Union Square Entrance Reconfiguration (UMS)						
FD-033	10/31/11		Additional Compensation Grouting due to Tunnel Settlement Alert and Trigger Levels (All Stations)					+21,040,000	ECP dated 11/17/11. ECP being routed for approval.
FD-034	12/09/11		Operational Performance and Safety Enhancement at 4th and King		CMB-0062	Agree	12/14/11	+450,000	SFMTA Operations requested that the design of the 4th & King tie-in work be expanded to include a number of improvements at the junction involving the turn-back area extending to the scissors crossover at 6th & King. SFMTA Ops confirmed that the requested changes result in an arrangement that is consistent with standard operation practices and therefore does not involve new or unacceptable risks. CS 1553 Memorandum No. 0081. Conditionally agreed upon verification/resolution of Buy America issue for the switches. <b>3/14/12: "Buy America" issue no longer applicable. Revised ECP element - remove H&amp;K switch machines and replace with hydraulic/120V switch machines such as Nortrak or equal.</b>
FD-035	06/26/12		Tunnel Air Replenishment System		CMB-0071	Agree	07/11/12	+1,215,000	Design and construct a fire fighter air replenishment system for Central Subway tunnel as described in SF Fire Code 511.2, Bulletin 5.07 except as noted in the Central Subway Request for Approval of Variance for the ARS to SFFD on March 5, 2012, and subsequently approved by SFFD. Design Impact: ROM - \$215K Construction Impact: ROM - \$1M
FD-036	06/26/12		Surface Segment Sewers - 4th St.		CMB-0072	Agree	07/18/12	+2,200,000	Replace current unreinforced brick crown from 1906 as it may not be able to withstand loading for construction of the CS trackway section. Reconstruct manholes between Brannan and King Streets as existing are in conflict with proposed rail. Replace service laterals and provide sleeves for future replacement. Additional potential scope option of \$1.5M-Sewer and \$2.3M-Force Main may be requested. If so, it will be Cost to SFPUC

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FD-037	08/27/12	Platform Display System Signs		CMB-0077	Agree (Conditionally)	08/29/12	+500,000	Modify Stations (Contracts 1253, 1254 and 1255) and Surface, Track and Systems (Contract 1256) technical specifications and drawings for the Platform Display System (PDS) to match the changes made to the PDS units being supplied under the Integrated Systems Replacement (ISR) Project, Contract No.1260. <b>08/29/12: CMB agreement condition upon follow up action to evaluate procurement by CN1260</b>		
FD-038	11/7/2012 06/05/13	Elongated Sidewalk Bulb-out at Chinatown Station		CMB-0121	Agree	06/05/13	+36,000	CTS Sidewalk Bulb out (Southwest corner Stockton/Washington To bring the Central Subway Project - Chinatown Station in closer conformance wit the City's General Plan, SF Planning Department in its May, 2012 GPR Letter (recommends) making design changes specifically the extension of the sidewalk bulb-out at Stockton Street to help create a "station plaza". This elongated bulbout on the southwest corner (SWC) of Stockton and Washington Streets in front of the station headhouse would also include bike racks, benches, trees and other landscape features. <b>06/05/13 - CSDG designer estimate cost is not a CS expense. Addl funding source will need to be establish by San Francisco Planning to support the investigation study</b>  Design Impact: Estimated Construction Cost ROM \$36,200 Construction Impact: Estimated ROM 97 Hrs.: DPW Pavement/Sidewalk Design Modification Estimated ROM 60 Hrs.: CSDG bus door/mirror/tree/bike rack coordination		
<b>FINAL DESIGN TRENDS (Based on All ECPs) - SUBTOTALS</b>								<b>+4,902,000</b>	<b>Incorporated budget increases have been absorbed by allocated and unallocated funds and the program budget to date remains \$1,578,300,000.</b>	
<b>OTHER TRENDS</b>										
X51-001	07/31/10	082-0001	1251 Revised estimate, escalation impact and contingency.	7			+9,532,314	Cost Transfer #0033 (Base \$\$), 0033a (Allocated Contingency), 0036 (Base \$\$ Escalation , 0036a (Allocated Contingency Escalation). [Sep2010 Cost Report]	BT-0033, BT-0033-A, BT0036, BT-0036-A	
X51-002	07/31/10	082-0002	Form B Credit for 1251 Utilities	7			(7,697,949)	Reserve and Contingencies removed as per communications with PG&E. This is consistent with the 1250 utility agreement. [ Cost Transfer #0034 - Aug2010 Cost Report].	BT-0034	
X52-001	07/31/10	083-0001	1252-(TUN) Revised estimate, escalation impact and contingency	7			(2,165,462)	Cost Transfer #0035 (Base \$\$), 0035a (Allocated Contingency), 0037 (Base \$\$ Escalation , 0037a (Allocated Contingency Escalation). [Sep2010 Cost Report]	BT-0037, BT-0037-A	
X03-001	08/31/10	003-0001	OEWD's Pilot Training Program	7			+75,000	Workforce training pilot program in conjunction with the City/County's Office of Economic and Workforce Development (OEWD). Provides specialized training to SF residents to perform tunneling work. Central Subway financial responsibility being investigated. Requires further clarification		
X53-001	07/18/11	084-0001	CS 155-2 (DP2) CBP4 - Construction Budget Adjustment YOY	7	CMB-0044	Agree	07/27/11	Adjust construction budget in Section 6 of Contract No. CS 155-2 to Year of Expenditure		
X53-002	10/25/11		Change UMS Advertise Date to April 4th, 2012					DP2 Designer's new proposed dates for Pre-Final and Final Design have pushed out Advertise Dates.		
X53-003	04/11/12	084-0002	CN1253 (UMS) Construction Budget Adjustment 90%				+55,720,600	CMB is currently vetting the 90% estimate of \$221,534,723 which represents a \$XX increase from the 65% base amount in 2010\$. Increase would deplete current YOY dollars and require use of unallocated contingency.		
X53-004	06/26/12	084-0002	Approve/Execute/Certify durations change for UMS Contract					Shortened the duration for Approve/Execute/Certify - UMS Contract from 40 to 24days to reflect an optimistic but doable duration for contractor submittals.		
X54-001	07/13/11	085-0001	CS 155-2 (DP2) CBP5 - Construction Budget Adjustment YOY	7	CMB-0045	Agree	07/27/11	Adjust construction budget in Section 6 of Contract No. CS 155-2 to Year of Expenditure		
X54-002	10/25/11		Change CTS Advertise Date to May 23rd, 2012		CMB-0061	Agree	12/28/11	DP2 Designer's new proposed dates for Pre-Final and Final Design have pushed out Advertise Dates.		
X54-003	11/02/11		Change CTS Advertise Date to February 8th, 2012					Change CTS Advertise Date from May 23, 2012 to February 8, 2012 (-74 working days)		
X54-005	12/06/11		Revisions to CTS Construction Schedule		CMB-0060	Agree	12/28/11			
X54-006	12/07/11	085-0002	CS 155-2 (DP2) CBP4 - Construction Budget Adjustment - allowed	7						

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X55-001	07/18/11	086-0001	CS 155-2 (DP2) CBP6 - Construction Budget Adjustment YOY	7	CMB-0046	Agree	07/27/11		Adjust construction budget in Section 6 of Contract No. CS 155-2 to Year of Expenditure	
X55-002	10/25/11		Change MOS Advertise Date to June 25th, 2012						DP2 Designer's new proposed dates for Pre-Final and Final Design have pushed out Advertise Dates.	
X55-003	11/02/11		Change MOS Advertise Date to May 23rd, 2012						Change MOS Advertise Date from June 25, 2012 to May 23, 2012 (-22 working days)	
X55-004	06/26/12		Change MOS Advertise Date to Aug 20, 2012						Change MOS to August 20, 2012	
X56-001	10/25/11		Change STS Advertise Date to July 27th, 2012						DP2 Designer's new proposed dates for Pre-Final and Final Design have pushed out the Station's Advertise Dates. STS Advertise Date is staggered from Station's Advertise Dates.	
X56-002	12/14/11		STS Construction Schedule Revision for Equipment Procurement							
X56-003	06/26/12		Change STS Advertise Date to October 1, 2012						Change STS Advertise Date to October 1, 2012	
X40-001	10/19/11	028-0001	SFPUC CDD Updated Budgets	7		Authorized		+505,127	1250 SFPUC CDD Monthly Service Report Final & 1251 SFPUC CDD Estimate	BT-0172, BT-0177
X80-001	10/19/11	071-0001	DP1: CS 155-1 Modifications No. 2 & 3	see Prof. Serv		Authorized		+560,585	Modification No. 2: \$395,584.59, Modification No. 3: \$165,000. Individual details listed in Professional Services. See trend 1551-0002,1551-0005 - 1551-0009	BT-0170, BT-0171, BT-0173
X80-002		071-0002	DP1: CS 155-1 Modification No. 4	7		Authorized		+135,898	Modification No. 4: \$135,898 Individual details listed in Professional Services. See trends 1551-0010 - 1551-0014.	BT-0187
X80-003	10/27/11	029-0001	Increase City Auditor Budget	7		Authorized		+50,220	Reduce unallocated Contingency to increase City Auditor budget as authorized in Budget Authorization #51.	BR#51, BT-0181
X80-004	10/27/11	232-0001	Increase SFCTA Budget	7		Authorized		+20,000	Increase SFCTA budget per Budget Authorization #51 to conduct travel forecast (TEP CEQA Modeling) to satisfy PMO review and SFMTA Fleet Plan light rail vehicle.	BR #51, BT-0182
X80-005	7/1/10, 11/2/10,3/24/11	072-0001	DP2: CS 155-2 Modification No. 1	7		Authorized		+1,010,000	Modification No. 1: \$1,010,600 Individual details listed in Professional Services. See trends 1552-0002, 1552-0003 and 1552-0005.	BT-0194, BR#53
X80-006	5/6/10,7/25/11, 9/22/11	072-0002	DP2: CS 155-2 Exercised Options	see Prof. Serv		Authorized		+366,771	Individual details listed in Professional Services. See trends 1552-0001, 1552-0007 and 1552-0014.	BT-0023, BT-0194
X80-007	11/08/11	151-0001	Operations SFMTA Transit Services			Authorized		+50,000	CSP request services to support and test OCS for 30/45 trolley reroute. Authorized per Budget Revision #53	BR #53, BT-0189
X80-008	09/01/11	081-0001	SFMTA Safety, Training, Security & Enforcement Div PCOs	7		Authorized		+60,000	CSP request PCOs to support 1251 and 1252 construction for one year. Authorized \$60,000 per Budget Revision #45.	BR #45, BT-0190
X80-009	11/30/11	016-0001	SFMTA Sustainable Streets 30 and 45 re-route	7		Authorized		-0-	<b>CSP request services to support 30/45 trolley reroute. \$162,600 was reduced from DPT staffing plan budget.</b>	BT-0188
X80-010	11/09/11	073-0001	DP3: CS 155-3 Modification No. 1	7		Authorized		+152,882	Modification No. 1: \$152,882 Individual details listed in Professional Services. See trends 1553-0012 and 1553-0013.	BT-0203
X80-011	8/9/11, 9/22/11, 10/11/11, 11/9/11	073-0002	DP3: CS 155-3 Exercised Options	see Prof. Serv		Authorized		+1,026,398	Individual details listed in Professional Services. See trends 1553-0001 - 1553-0004, 1553-0006, 1553-0009 - 1553-0011, 1553-0014. <b>Updated from \$971,686 to include Trend 1553-0014.</b>	BT-0203
X80-012		151-0002	OCS materials procured directly for work in reference to CN1251 CMOD#12.		CMB-0065	Agree	1/25/2012, 2/29/12	+126,149	See also Trend 1251-0023	
X80-013	05/30/12	073-0003	DP3: Provide Vibration Impact Analysis and Extend PC Support Technical and CSP Quality Manager	1				+133,906	Amend #2: Vibration Impact Analysis \$38,380 Amend #3: PC Support Tech \$34,483; Quality Manager - \$61,043	TBD
X80-014	12/17/12		For combining the stations and track and systems into Contract 1300 (SSTS)	7					Combined all the Station ad Track and Systems into one Contract. Removed the buffer float activities from the satin to track and systems and overlapped work that can now be done concurrent.	
X80-015	12/17/12		Changing the Bid Opening date and condensing the Contract Duration for Contract 1300	7		Agree	11/14/12		Change bid opening to March 19, 2013 and reevaluated procurement durations, revised calendars for UMS Garage, revised production rates for steel. <b>11/14/13 CMB Agreed verbally to change @ Mtg #101</b>	

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X80-016	02/19/13	Change to Tunnel and CTS interface and buffer float Contract 1300 (SSTS)	7		Agree	01/23/13		Change (MPS) reducing the number of days currently in (from 550 calendar days from NTP to 450 calendar days) for the key interface between CTS and the tunnel completion. Reduced number of days will be issued as part of Add #3 of the 1300 contract. 1/23/13 CMB Agreed verbally to change @ Mtg #111.	

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<b>OTHER TRENDS (Based on Various Trends)</b>							+59,662,439	Current Forecast reflects a net +3,537,933 unfavorable impact for all Other Trends.		
<b>GRAND TOTALS</b>							+65,532,996	Current Forecast reflects an estimated net + 65,836,870 3 unfavorable exposure to the project to date. Incorporated budget increases have been absorbed by allocated and unallocated funds and the program budget to date remains \$1,578,300,000.		
<b>PROFESSIONAL SERVICES TRENDS:</b> The following trends are listed for administrative purposes. The dollar amounts are reflected in the "Other Trends" section of this log in the form of cost (budget) transfers - i.e. CCOP's. The total values indicated for each professional contract are for tracking all potential cost exposures and may or may not be approved.										
<b>Contract CS-155-1</b>										
1551-0001	07/30/10		071-0001	Conform Contract Terms per Negotiations from 10/2/09 to 11/6/09	7		-0-	To be addressed in Amendment 1.	Amendment 1 Pending	
1551-0002	02/18/11		071-0002	Project Office Delay (Adjustments for OH Rate and Team Productivity impact)	7	Authorized	07/29/11	+101,411	Amendment Signed by ED/CEO 7/29/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #2</b>	Amendment 2 Approved
1551-0003	02/18/11		071-0003	Additional Construction Support for CP-1	7					
1551-0004	02/18/11		071-0004	Redesign Required by Barney's and PUC for CP-2	7					
1551-0005	02/18/11		071-0005	Archeological Monitoring 16.20.C1 (total)	7	Authorized	07/29/11	+197,173	Amendment Signed by ED/CEO 7/29/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #2</b>	Amendment 2 Approved
1551-0006	02/18/11		071-0006	Eyebolts	7	Authorized	07/29/11	+50,000	Amendment Signed by ED/CEO 7/29/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #2</b>	Amendment 2 Approved
1551-0007			071-0007	Secondary Closure Walls 800/838 Market	1	Authorized	07/29/11	+47,400	Amendment Signed by ED/CEO 7/29/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #2</b>	Amendment 2 Approved
1551-0008			071-0008	Delete Optional Tasks - Tasks 1-14	1			-0-	Deleted Options in the amount of (\$529,952) in Amendment has been reversed through Budget Authorization #50. <b>COMPLETE, NO FURTHER ACTION; Amendment #2</b>	Amendment 2 Approved
1551-0009			071-0009	CTS Lowering	1	Authorized	12/08/11	+165,000	Amendment Signed by ED/CEO 12/8/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #3</b>	Amendment 3 Approved
1551-0010			071-0010	Modify Sidewalk Vault Demo ECP-FD009	7	Authorized	12/08/11	+39,311	Amendment Signed by ED/CEO 12/8/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #4</b>	Amendment 4 Approved
1551-0011			071-0011	Modify Stockton St. Sewer ECP-FD010	7	Authorized	12/08/11	+4,112	Amendment Signed by ED/CEO 12/8/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #4</b>	Amendment 4 Approved
1551-0012			071-0012	Reconfigure Utilities N. Side Ellis ECP-FD011	7	Authorized	12/08/11	+2,448	Amendment Signed by ED/CEO 12/8/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #4</b>	Amendment 4 Approved
1551-0013			071-0013	Extend SubSidewalk Closure Wall ECP-FD013	7	Authorized	12/08/11	+85,233	Amendment Signed by ED/CEO 12/8/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #4</b>	Amendment 4 Approved
1551-0014			071-0014	Reroute OCS to Fifth St. ECP-FD014	7	Authorized	12/08/11	+4,794	Amendment Signed by ED/CEO 12/8/11 <b>COMPLETE, NO FURTHER ACTION; Amendment #4</b>	Amendment 4 Approved
1551-0015			071-0015	Retrieval Shaft Redesign - Sewer By Pass	7			+56,000	Awaiting documentation from Designer	
1551-0016			071-0016	Design Measures for Settlement Protection	7			+99,000	Awaiting documentation from Designer	
1551-0017			071-0017	Incorporate Headwalls MOS/UMS	1	Disagree at this time	11/01/11	+42,000	In letter dated November 1, 2011 DPM responded that until concurrence with DP2 on cost transfer or additional documentation, the requested change is denied.	
1551-0018			071-0018	Prepare Utility Composite	-	Disagree	11/01/11	+50,000	DPM responded that Program does not agree in letter dated November 1, 2011.	
1551-0019			071-0019	Incorporate Cross Passages	1	Disagree at this time	11/01/11	+43,000	In letter dated November 1, 2011 DPM responded that until concurrence with DP2 on cost transfer or additional documentation, the requested change is denied.	

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<b>Contract CS-155-1 Total</b>							<b>+986,882</b>	Of the total cost exposure shown, Contract Modifications and Authorized Option dollars have been absorbed by DP1 allocated contingency in the amount of \$696,483 of a total budget of \$705,000. Additional potential exposure is +\$391,411. Currently, overall contract value remains unchanged in the amount of \$6,500,000.	
<b>Contract CS-155-2</b>									
1552-0001	05/06/10	072-0001	Optional Task 2.50 and Task 12.07	1	Authorized	05/06/10	+274,775	CS Letter 0473 from ED/CEO Optional Task 2.50 to support art enhancement activities NTE \$164,383 and Optional Task 12.07 to support design structures for Public Art NTE \$110,392.	
1552-0002	07/01/10	072-0002	Expanded Hydraulic Testing at CTS	7	Authorized	07/01/10	+26,100	Estimated cost breakdown is included in the 7/1/10 letter from CSDG and includes signed approval by SFMTA. Amendment No. 1 authorized by ED/CEO on 12/21/11. <b>COMPLETE, NO FURTHER ACTION; Amendment #1</b>	<b>Amendment 1 Approved</b>
1552-0003	10/11/10	072-0003	Additional Soil Borings at UMS Station - Task No. 3.10 Supplemental Investigations	7	Authorized	11/02/10	+34,500	Estimated cost breakdown is included in the 10/11/10 letter from CSDG and includes signed approval by SFMTA. Amendment No. 1 authorized by ED/CEO on 12/21/11. <b>COMPLETE, NO FURTHER ACTION; Amendment #1</b>	<b>Amendment 1 Approved</b>
1552-0004	02/11/11	072-0004	MOS TOD White Paper Proposal	1			+33,847	Conceptual study will assess a potential high rise building at the Moscone station headhouse. Estimated cost breakdown is included in the 2/11/2011 letter from CSDG - <b>On Hold</b> .	
1552-0005	03/24/11	072-0005	CTS - Alternate 5	7	Authorized	03/24/11	+950,000	CS Letter from DED dated 3/24/11 has agreed to a modification of \$950,000 for performing additional work. Amendment No. 1 authorized by ED/CEO on 12/21/11. <b>COMPLETE, NO FURTHER ACTION; Amendment #1</b>	<b>Amendment 1 Approved</b>
1552-0006	06/28/11	072-0006	Audited Overhead Rate Adjustment for Year 2010 - Request for Amendment	7			-0-	Estimated cost of \$406,320 is included in the 6/28/11 letter from CSDG. <b>See 1552-0006 Rev. 1 for most current estimate</b>	
1552-0007	07/25/11	072-0007	REVIT and CAD Support (to City Staff) Option to DP2 Contract (Optional Services Task 12.12)	1	Authorized	07/25/11	+79,200	CS Letter No. 0768 from ED/CEO dated 7/25/11 has authorized Optional Task 12.12 NTE \$79,200.	
1552-0008	08/03/11	072-0008	MOS Revisions to Emergency Ventilation Requirements	-	Provide further Justification	09/07/11	-0-	CMB did not approve a \$60,000 proposed increase. Document References ECP FD028, CSDG letter dated 8/8/11. DPM responded that program does not agree in letter dated 10/17/11.	
1552-0009	08/03/11	072-0009	CTS Revisions to Emergency Ventilation Requirements	-	Provide further Justification	09/07/11	-0-	CMB did not approve an \$80,000 proposed increase. Document References ECP FD029, CSDG letter dated 8/8/11. DPM responded that program does not agree in letter dated 10/17/11.	
1552-0010	08/03/11	072-0010	UMS Revisions to Emergency Ventilation Requirements	-	Provide further Justification	09/07/11	-0-	CMB did not approve a \$100,000 proposed increase. Document References ECP FD030, CSDG letter dated 8/8/11. DPM responded that program does not agree in letter dated 10/17/11.	
1552-0011	08/17/11	072-0011	Audited Overhead Rate Adjustment for Year 2010 - Request for Amendment - Rev. 1	7			+426,322	Estimated cost breakdown is included in the 8/17/11 letter from CSDG. This is a revision to the 8/28/11 letter and cost breakdown.	
1552-0012	08/23/11	072-0012	Station Air Replenishment System	-	Disagree	10/17/11	+36,240	Estimated cost breakdown is included in the 8/23/11 letter from CSDG. DPM responded that program does not agree in letter dated 10/17/11.	
1552-0013	09/01/11	072-0013	COR for Additional Services Related to MOS Constructability Review and Assessment of Alternatives	-			-0-	Cost charged to Task 2.70- part of base work	
1552-0014	09/22/11	072-0014	Proposal for Additional Work to provide Structural Engineering Support (Optional Services)	1	Authorized Optional Task 12.01.C5 only	11/04/11	+35,724	Estimated cost breakdown is included in the 9/22/11 letter from CSDG. Referenced Optional Work Tasks 12.01.C5 and 12.07.C5 - Effort re-evaluated - proposed cost to be resubmitted. <b>CS Letter No. 1232 dated 11/4/11 from Director of Transportation has authorized Optional Task 12.01.C5 for the amount of \$12,796.</b>	<b>Option</b>

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- 7 - Other

**CENTRAL SUBWAY PROJECT**  
**Project Trend/Change Control Log**

Item #	Date Initiated	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number	
					Approval Action	Approval Date				Actual/Forecast
<b>Contract CS-155-2 Total</b>							<b>+1,896,708</b>	Of the total cost exposure shown, Contract Modifications and Authorized Option dollars have been absorbed by DP2 allocated contingency in the amount of \$1,046,324 of a total budget of \$4,890,707. Overall contract value remains unchanged in the amount of \$39,949,959.		
<b>Contract CS-155-3</b>										
1553-0001	08/09/11	073-0001	Authorization to commence optional tasks 9.20J Technical Specifications Item J Facility SCADA	1		Authorized	08/01/11	+259,305	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0002	08/09/11	073-0002	ation to commence optional tasks 12.05 Architectu	1		Authorized	08/01/11	+257,129	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0003	08/09/11	073-0003	Authorization to commence optional tasks 12.13J Facility SCADA Design	1		Authorized	08/01/11	+169,553	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0004	08/09/11	073-0004	Authorization to commence optional tasks 12.12E traction power cables for CAD production	1		Authorized	08/01/11	+52,800	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0005	09/19/11	073-0005	Proposal to hire Wilson Ihrig to support Acoustics, Noise and Vibration tasks.	7		Authorized	03/08/12	+38,380	Signed by Director of Transportation 3/8/2012. <b>COMPLETE, NO FURTHER ACTION ; Amendment 2</b>	Amendment 2 Approved
1553-0006	09/22/11	073-0006	Proposal to exercise optional task 12.07 Public Art.	1		Authorized	11/04/11	+10,285	Letter dated 9/22/11 to DOM. PMCM response pending. Priced level of Effort assumed for this task. SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task.	
1553-0007	09/27/11	073-0007	Proposal to exercise optional sub-task 12.12 structural design of the OCS attachments.	7				+59,460	Letter dated 9/27/11 to DOM. <b>NOT FOLLOWING CONTRACT REQUIREMENTS FOR PROPER NOTIFICATION OF CHANGE.</b> PMCM has responded to clarify scope in stations and Tunnel Design. Awaiting resubmittal of request by DP3	
1553-0008	10/05/11	073-0008	Scope Clarification - Add Emergency and Location Signage.	7		Disagree A.12.08- Signage	11/09/11		Letter dated 10/5/11 to DOM. <b>NOT FOLLOWING CONTRACT REQUIREMENTS FOR PROPER NOTIFICATION OF CHANGE.</b> CS Memo No. 0882 from DOM to DP3 PM considers A.12.08 Signage as part of the work necessary to complete the trackway elements of the scope. The work in question is considered part of the base scope of services.	
1553-0009	10/11/11	073-0009	Proposal to exercise mechanical optional task A 12.11 to design a water line on the FBS station platform.	1		Authorized	11/04/11	+33,000	SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task. <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0010		073-0010	Proposal to exercise Task 12.01 Surface Segment site Drainage	1		Authorized	11/04/11	+108,240	SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task. <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0011		073-0011	Proposal to exercise Task 12.02 Sewer Relocation and Analysis Report.	1		Authorized	11/04/11	+81,374	SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task. <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0012	11/09/11	073-0012	CTS - Alternate 5	7		Authorized	01/18/12	+88,855	Contract Modification No. 1 authorized by ED/CEO on 1/18/12 <b>COMPLETE, NO FURTHER ACTION; Amendment #1</b>	Amendment 1 Approved
1553-0013	11/09/11	073-0013	Proposal for Geotechnical Services	7		Authorized	01/18/12	+64,027	Letter dated October 7, 2011 to DOM. PM/CM response pending. Contract Modification No. 1 authorized by ED/CEO on 1/18/12 <b>COMPLETE, NO FURTHER ACTION; Amendment #1</b>	Amendment 1 Approved
1553-0014	02/06/12	073-0014	Authorization to commence optional tasks 12.12E traction power cables for CAD production, Optional task 2.50 Coordination with Art			Authorized	02/06/12	+54,712	SFMTA Letter 1381 from Director of Transportation dated 2/06/12 authorizing optional tasks 12.12e in the amount of \$41,280 and 2.50 for \$13,432 <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0015	03/20/12	073-0015	Proposal for additional services in Response to Approved (ECP) FD-034 Operation Performance and Safety Enhancements to 4th and King and 6th and King.	1				+26,026	FD-034 was updated by CMB on 3/14/12. Proposal transmitted via letter CS1553 No. 0012 dated 3/20/12 to DOM. <b>Amendment #4 PENDING</b>	Option

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**CENTRAL SUBWAY PROJECT**  
**Project Trend/Change Control Log**

Item #	Date Initiated	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number	
					Approval Action	Approval Date				Actual/Forecast
1553-0016	03/23/12	073-0016	Proposal for additional work - Tunnel Air Replenishment System (Exercise Optional Service)	7		Authorized	04/26/12	+173,119	SFMTA letter 1658 from Director of Transportation dated 4/26/2012 authorizing \$173,119 in optional tasks. Included in FD-035 to be presented to CMB on 6/26/12	Option
1553-0017	05/14/12	073-0017	Extension of PC Support Technician	1		Authorized	05/04/12	+34,483	Signed by Director of Transportation 5/14/12 <b>COMPLETE, NO FURTHER ACTION; Amendment #3</b>	Amendment 3 Approved
1553-0018	05/14/12	073-0018	Extension of CSP Quality Manager	1		Authorized	05/04/12	+61,043	Signed by Director of Transportation 5/14/12 <b>COMPLETE, NO FURTHER ACTION; Amendment #3</b>	Amendment 3 Approved
1553-0019	04/09/12	073-0019	Authorization to commence optional task 12.02 Utility Plans for design of repositioned and reconstructed manholes for the 78 inch diameter sewer on 4th St.	1		Authorized	04/09/12	+52,712	SFMTA Letter 1630 from the Director of Transportation dated 4/9/2012 authorizing optional task 12.02 in the amount of \$52,712 <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0020	04/09/12	073-0020	Authorization to commence optional task 12.12 civil and structural support for traction power duct banks	1		Authorized	04/09/12	+109,000	SFMTA Letter 1630 from the Director of Transportation dated 4/9/2012 authorizing optional task 12.12 in the amount of \$109,000 <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0021	04/26/12	073-0021	Authorization to commence optional task 12.11 design of the tunnel based Air Replenishment System including fill panels, feeder pipes, gauges, valves, fire proofing, anchors, supports, low level alarms, wiring, signage, connections to SCADA and monitoring devices, equipment placement, and impact protection	1		Authorized	04/26/12	+173,119	SFMTA Letter 1658 from the Director of Transportation dated 4/26/2012 authorizing optional task 12.11 in the amount of \$173,119 <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0022	04/26/12	073-0022	Increased authorization for optional task 12.12.e CAD production support	1		Authorized	04/26/12	+30,000	SFMTA Letter 1658 from the Director of Transportation dated 4/26/2012 authorizing the increase in optional task 12.12e in the amount of \$30,000 <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0023	05/21/12	073-0023	Authorization to commence option task 12.11 structural design support for Fire Protection and Plumbing designs	1		Authorized	05/21/12	+39,204	SFMTA Letter 1688 from the Director of Transportation dated 5/21/2012 authorizing the increase in optional task 12.11 in the amount of \$39,204 <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0024	05/21/12	073-0024	Authorization to commence optional task 12.12 structural design support for Traction Power and Power/Lighting designs	1		Authorized	05/21/12	+43,638	SFMTA Letter 1688 from the Director of Transportation dated 5/21/2012 authorizing the increase in optional task 12.12 in the amount of \$43,638 <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0025	05/21/12	073-0025	Authorization to commence optional task 12.13 structural design support for Telephone and CCTV designs	1		Authorized	05/21/12	+24,328	SFMTA Letter 1688 from the Director of Transportation dated 5/21/2012 authorizing the increase in optional task 12.13 in the amount of \$24,328 <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
1553-0026	05/21/12	073-0026	Authorization to commence optional task 9.20 Technical Specifications for structural design support for above designs	1		Authorized	05/21/12	+3,039	SFMTA Letter 1688 from the Director of Transportation dated 5/21/2012 authorizing the increase in optional task 9.20 in the amount of \$3,039 <b>COMPLETE, NO FURTHER ACTION; OPTION</b>	Option
<b>Contract CS-155-3 Total</b>								<b>+2,046,831</b>	<b>Of the total cost exposure shown, Contract Modifications and Authorized Option dollars have been absorbed by DP3 allocated contingency in the amount of \$1,168,995 of a total budget of \$4,598,725. Overall contract value remains unchanged in the amount of \$19,919,526.</b>	

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