

CMB Meeting Minutes #151

DATE: December 20, 2013

MEETING DATE: **December 11, 2013**

LOCATION: 821 Howard St, Main Conference Room

TIME: 3:00 PM

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

COPIES TO: Attendees: S. Farhangi (SF), M. Henry (MH), J. Park (JP), K. Shah (KS), V. Chow (VC), J. Xia (JX), S. Espinal (SE), R. Hansen (RH), R. Nguyen (RN), J. Wang (JW), B. Lebovitz (BL)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 # 151 – Rev. No. 0

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

ITEM #	DISCUSSION	ACTION BY DUE DATE
1-	1252 - The Contractor's November Schedule Update was reviewed. There is a concern the TBM could possibly arrive 4½ weeks early prior to the tunnel being completed. The CMB requested the CM Team demonstrate the basis of that concern and perform a schedule analysis of the SB tunnel progress versus Retrieval Shaft demonstrating the concern is real.	MB 12/18/13
2-	1252 - M. Benson presented for review DP1 Task 16 Expenditure to date. A review of remaining budget shows the designer is expending more than the \$25K a month which is the maximum expenditure amount to remain within their budget. Suggestion by the Construction Manager to scale back cost would include having the designer decrease their present in the office and to perform reviews on an as needed basis (see attached).	
3-	1252 - M. Benson presented for review DP2 Task 16 Design Support Budget to date. (see attached). The Construction Manager reported that remaining CSL test results submittal has not been return because the designer is out of budget. The CMB suggested a letter be written and elevated to DP2 Senior Management to request that they perform their required contract work. The RE proposed to offset 1252-design support cost, by using 1300 contract design support budget when it affects the stations. The CMB was in agreement with this proposal.	
4-	1252 - S. Wilson presented Different Site Condition (DSC) - Retrieval Shaft CSM Panel W6 Obstruction - evaluation of merit and cost for approval of force account change (FAA009). While excavating the CSM panel W6 the Contractor encountered an unknown object 10 ft. below grade located beneath the basement slab demo limits in the 1277 Contract. Upon	

ITEM #	DISCUSSION	ACTION BY DUE DATE
	retraction of the rotary drill head the Contractor discovered a concrete slab and steel debris which was entangled within the rotary head. The CMB agreed with merit and costs associated with the different site condition for a Not To Exceed amount of \$9,000 AGREE – CMB 0146.	
5-	1252 - M. Benson presented PCC 016 - Retrieval Shaft 3x5 Sewer Changes. Due to time constraints the PCC has already been forwarded to the Contractor to price the work for sewer changes along Powell Street/Columbus Ave and on Union Street. The work requires Slip lining work and sprayed mortar lining on short sections to be done. The PUC was put on notice they would be responsible for the difference in cost. The CMB directed the CM Team to forward a copy of the proposed contract change to PUC. In addition the CM Team was directed to generate a "Finding of Fact" form to include in the internal PCC backup documentation.	
6-	1252 - M. Benson presented PCC 017 - Green Street Sewer Changes. Due to time constraints the PCC has already been forwarded to the Contractor for different site conditions discovered at Columbus/Stockton Street intersection. The work required Slip lining to be done. the Contractor discovered several obstructions with AWSS pipe and water pipe preventing the slip lining work. The information was sent to PUC, the PUC requested the Contractor perform sprayed mortar in lieu of the slip lining work. The PUC was put on notice they would be responsible for the difference in cost. The CMB directed the CM Team to forward a copy of the proposed contract change to PUC. In addition the CM Team was directed to generate a "Finding of Fact" form to include in the internal PCC backup documentation.	
7-	1252 - BART Load Cell - BART has requested Central Subway provide information as to the reason two of the twelve load cells installed to monitor BART tunnel lining bolt loads during construction of the Central Subway tunnels are showing prism spikes (see attached). The Board suggested a conference call between BART be conducted to discuss the issue.	JW 01/08/14
8-	1300 - T. DePooter presented for review a Request for Substitution - Self-Compacting Concrete. The Contractor proposes the use of a high slump "wet hole" concrete mix in lieu of the self-compacting concrete for the secant and tangent piles at UMS. The CMB was agreement with the product substitution based on the fact the mix has already been used for construction of the headwalls and proven viable.	
9-	The Program Trend/Change Control Log dated 12/11 was reviewed. The review noted of Trend 80 Segment Measuring Frequency had been closed. The CMB took exception to the deletion of the (\$1.3M) from the log without the consent of the Board. Direction was given to list the potential credit amount to the log adding a notation in "comment section" stating the reasoning the credit is no longer expected from the Contractor	MB 12/18/13
10	1252 - M. Latch reported on the status of the Precast Tunnel Liner Test reports. The criteria require the Contractor to assemble a master ring of segments every 100th ring cast. The Contractor's RFI 203.1 request the measuring of the segments frequency be decreased to every 500 rings cast, due to the increased frequency of testing on the forms. The CMB requested to review the Contractor's reports which demonstrates the results of the precast tunnel liner testing at next week's CMB meeting.	ML 12/18/13

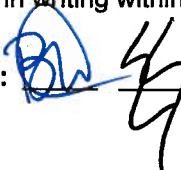
ACTION ITEMS

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	11/27/13	CLOSED
8	07/24/13	07/24/13	1252 – Breakdown of Bid Item GE-3	MB	01/08/14	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	01/08/14	Open
1	08/28/13	08/28/13	1252 – Outstanding COR's – status update	SW/MB	01/08/14	Open
2 & 3	08/28/13	08/28/13	1252 – COR 97 & 98 – gravel encountered action plan from Engineering of Record (DP1)	SW/MB	01/08/14	Open
5	08/28/13	08/28/13	1252 – Action plan of execution for the Slip Lining Work (Stockton/Columbus)	SW	01/08/14	Open
4	09/25/13	10/02/13	1252 – Efforts to offset Cost for DP2 Budget Increase Task 16	SW	11/27/13	CLOSED
4	09/25/13	10/02/13	1252 – COR #104 - Additional Sewer Slip Lining – SFPUC Response	SW	01/08/14	Open
5	09/25/13	10/02/13	1300 – PCC CTS 0001 - Contractor Cost Proposal	TDP	01/08/14	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	01/08/14	Open
1	10/16/13	10/16/13	1252 – COR 102 - Determine if the Contractor received 1251 as built information before they began operations	SW	01/08/14	Open
1	10/16/13	10/16/13	1252 – COR 102 - Graphic showing the location of the headwalls control line	SW	01/08/14	Open
3	10/23/13	10/23/13	1252 – PCC 014 - Contractor Cost Proposal	JW/SW	01/08/14	Open
1	10/23/13	10/23/13	1300 – Ltr. To TPC – Tutor's Bid Item for the Steel	RR/NH	01/08/14	Open
1	10/23/13	10/23/13	1300 – Ltr. To PB – Validation of availability of steel in USA during bid	RR/NH	01/08/14	Open
4	10/23/13	10/23/13	1300 – COR 05 - Revisit IRL process with Contractor	RR	01/08/14	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	01/08/14	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	01/08/14	Open
2	11/13/13	11/13/13	1300 – Setup a meeting with DT to confirm the use to control traffic	BK	01/08/14	Open
NA	11/13/13	11/13/13	1252 – Confirm who is being billed for the use of PCO's at 5 th St.	MB	01/08/14	Open
1	11/20/13	11/20/13	1300 – PCC 006 - Addl AT&T Manholes - Utility verification letter	MA	12/18/13	Open
2	11/20/13	11/20/13	1300 – PCC 00X - PGE Traffic Control - Utility verification letter	TDP	01/08/14	Open
1	12/11/13	12/11/13	1252 - November Schedule Update - Analysis of SB Retrieval Shaft	MB	12/18/13	Open
7	12/11/13	12/11/13	1252- BART Load Cell - Conference Call	JW	01/08/14	Open
9	12/11/13	12/11/13	1252 - Trend Log Segment Measuring Frequency line item credit (1.3M)	MB	12/18/13	Open
10	12/11/13	12/11/13	1252 - Precast Tunnel Liner Test - Contractor's Rpt.	ML	12/18/13	Open

Meeting adjourned at 5:30pm

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: 20 Dec 13 [Date review completed]

Meeting Agenda

Project No. M544.1, Contract No. CS-149
Program/Construction Management
Configuration Management Board (CMB) Meeting No. 151
December 18, 2013
3:00pm – 5:00pm
 Central Subway Project Office
 821 Howard St. 2nd Floor
 Main Conference Room

Attendees:

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

1. **1252** - November Schedule Update - *Review*
 - DP1 Task 16 Expenditure - *Review*
 - DP2 Task 16 Design Support Budget - *Review*
 - DSC - Retrieval Shaft CSM Panel W6 Obstruction - *Merit/Cost NTE*
 - PCC 16 - Retrieval Shaft Sewer Changes - *Information*
 - PCC 17 - Green Street Sewer Changes - *Information*
 - BART Load Cell - *Information*

2. **1300** - Request for Substitution - Self-Compacting Concrete - *Review*

3. **Trend/Change Log** - CN1252 - One new item

4. **Other Business** –

Meeting Attendance Sheet

Project No. M544.1, Contract No. 149
Program/Construction Management
Configuration Management Board S Meeting No. 151
December 11, 2013
3:00 p.m. – 5:00 p.m.
 Central Subway Project Office
 821 Howard, 2nd 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	<i>MB</i>
Chow, Vivian	SFMTA	(415) 701-5264	Vivian.chow@sfmta.com	
DePooter, Ted	CSP	415 701-5295	Ted.DePooter@sfmta.com	
Farhangi, Shahnam	SFMTA	(415) 554-0721	Shahnam.Farhangi@sfmta.com	
Funghi, John	SFMTA	(415) 701-4299	John.Funghi@sfmta.com	<i>JF</i>
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	
Jefferis, Scott	SFMTA	(415) 238-4679	Richard.Jefferis@sfmta.com	<i>RS</i>
Kelleher, Brian	SFMTA	(415) 701-5289	Brian. Kelleher@sfmta.com	<i>BK</i>
Kelly, Jim	SFMTA		Jim.Kelly@sfmta.com	
Kuehn, David	STV/PMOC	(510) 464-8053	David.kuehn@stvinc.com	

central **T** subway

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS
Latch, Mark	CSP	(415) 701-5294	Mark.Latch@sfmta.com	MDL
Lebovitz, Brad	STV/PMOC	(510) 464-8052	Bradley.lebovitz@stvinc.com	
Nguyen, Roger	SFMTA	(415) 701-4312	Roger.Nguyen@sfmta.com	
Park, Joon	SFMTA	(415) 701-4742	Joon.Park@sfmta.com	
Redmond, Richard	CSP	(415) 701-4288	Richard.Redmond@sfmta.com	RR
Shah, Kartik	SFMTA	(415) 701.5678	Kartik.Shah@sfmta.com	
Stassevitch, Eric	CSP	(415) 701-4426	Eric.Stassevitch@sfmta.com	ES
Vilcheck Mark	CSP	(415) 701-4293	Mark.Vilcheck@sfmta.com	MS
Wang, Jane	SFMTA	(415) 701-4287	Jane.Wang@sfmta.com	
Ward, Beverly	CSP	(415) 701-5291	Beverly.Ward@sfmta.com	BW
Wilson, Sarah	CSP	(415) 243-0950	Sarah.Wilson@sfmta.com	SW
Zurinaga, Luis	SFCTA	(415) 716-6956	Luis.zurinaga@sfcta.org	LZ
	<i>Albert Hooe was in attendance, but did not sign in.</i>			
			<i>BA</i>	

GENERAL

Proposed Change Sponsor: S. Wilson Received by CMB: 12/11/2013
(Date)

Affected Disciplines: Excavation and Ground Support

Impacts of Change CSM Panel W6 Obstruction

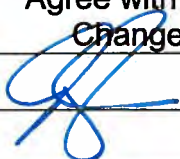


Force Account Change Order (FACO 009) Amount Not To Exceed
\$9,000.00

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:			12-11-13
Deputy Program Manager:			
PM Project Services:			
PM Project Construction:			12/11/13
SFMTA O & M Manager:			
SFMTA Safety and Security			
SFCTA PMO			11 Dec 13

Comments

Estimate Summary

General Scope

While excavating for CSM panel W6 on November 12th, 2013, the Contractor (Drill Tech) encountered an unknown object approximately 10' below grade. The Contractor's crew attempted to drill through obstruction but was unable to break through the object. The crew retracted the rotary drill head and discovered entangled steel debris lodged within the rotary head. On November 19th, 2013, the Contractor (Drill Tech and BIHJV) excavated to a depth of ten feet and removed portions of a concrete slab and debris. Panel W6 was completed without additional impacts.

Date of work performed:

11/12/2013

11/19/2013

Total Estimated Amount

\$ 7,829.32

Total Not-To-Exceed Amount

\$ 9,000.00

List of attached documents:

Labor, Equipment and Material Cost Breakdowns
Daily Force Account Field Reports (2ea)
BIH to SFMTA Email (dated 12/02/2013) and Drill Tech Material Invoice


Prepared By: Ben Volberding Date: 12/10/13


Checked By: Matt Hembd Date: 12/10/13

No.	Activity	Hourly rates:							Labor totals	Hourly rates:										Equipment Totals			
		\$ 72.43	\$ 68.87	\$ 74.33	\$ 68.87	\$ 70.59	\$ 52.48	\$ 70.59		\$ 780.38	\$ 28.56	\$ 57.08	\$ 15.10	\$ 56.79	\$ 32.98	\$ 47.50	\$ 242.27	\$ 32.90	\$ 32.90		\$ 26.90	\$ 23.51	
		Richard McCause Operator G2	Hector Perez Operator G4	Charles Huckaba Operator G1	Christopher Grove Operator G4	Santos Mendoza Operator G3	Victor Neavez Laborer G3	Hieu Pham (BIH Craft) Operator G3		Bauer Drill Rig RG23S	Drill Wheel 4-30W	Excavator CAT 313	25kW-50kW	Cement Silo MCD5	Concrete Batch Plant CONBP	Batch Plant Mixer MP1000	100T Crane Link Belt 218H [PLUG]	Flatbed F-550 GVRW 19,500lbs	Flatbed F-450 GVRW 14,000lbs	Tool Truck F-150 (GVRW ~7,500lbs)	Excavator John Deere 190E		
1	11/12/13 - Hit obstruction, moved to W-4 panel	2	2	2	2	2	2		\$ 815.14	2	2	2	2	2	2	2	2	2	2	2	2		\$ 2,706.72
2	11/19/13 - Excavated around and removed obstruction		4					1	\$ 346.07			4									1		\$ 251.83
3	Cutter teeth repair	8	8						\$ 1,130.40												8		\$ 215.20
Total									\$ 2,291.61														\$ 3,173.75

Labor	\$	2,291.61
Material	\$	607.76
Equipment	\$	3,173.75
2nd Tier Sub	\$	-
Markup on 2nd Tier Sub - 5%	\$	-
1st Tier Sub OH&P - 15%	\$	910.97
1st Tier Sub Bond/Insurance - 5.00%	\$	349.20
Drill Tech Subtotal	\$	7,333.29
Prime - Markup - 5%	\$	366.66
Prime - Bond/Insurance - 1.68%	\$	129.36
Total Amount	\$	7,829.32
Total Not-to-Exceed Amount	\$	9,000.00

Notes:

- Engineer's Estimate (EE) uses labor and equipment hours as documented by the SFTMA
- EE uses CJA-NCC's approved labor and equipment rates as Drill Tech has yet to submit rates for SFMTA approval
- EE uses plug bond/insurance rate (5%) as Drill Tech has yet to submit rates for SFMTA approval
- Additional concrete batch plant equipment per Drill Tech engineer
- No Caltrans rate for 100T Kobelco CK1000 crane. Using rate for similar capacity Link-Belt crawler.
- No Caltrans rate for John Deere 135G excavator. Using rate for similar capacity JD excavator.
- Total Not-To-Exceed amount includes additional possible labor/equipment costs for rate differences (since Drill Tech has yet to submit labor/equipment rates to the SFMTA)

Materials	Qty.	Unit	Unit Price	Extension
Cutter Teeth (BFZ16)	10	EA	\$ 38.51	\$ 385.10
Freight (10 of 256 teeth)	1	EA	\$ 222.66	\$ 222.66
<i>Sales Tax (9.00%)</i>				\$ 54.70
Total				\$ 607.76

FIELD WORK ORDER / DELAY

Drill Tech Drilling & Shoring, Inc.
 2200 Wymore Way
 Antioch, CA 94509
 925/978-2060

Date Work Performed: 11-13-17 ←
 Name/Job #: 1336 Carter Rd Shoring
 CCO#: _____
 For: _____

correct date:
 11.12.13

You are hereby authorized and directed to perform the following work as described below:

Complete the portion above for each item of authorized work at the outset.

EQUIPMENT

QTY.	DESCRIPTION	HOURS	QTY.	DESCRIPTION	HOURS
1	DR 54 Pole 26	2	1	mal PLANT	2
1	6x9 213 cat Excavator	2	1	CR-6 100T CRANE	2
1	G-36 generator	2	1	T-101 F-55 Flatbed	2
1	Command Site	2	1	T-73 F-450 Flatbed	2
			1	T-104 Tool TRUCK	

LABOR

EMPLOYEE	CLASSIFICATION	HOURS	
		RFA:	O.T.
Rick McCann	Operator		2
Hector Perez	"		2
Charles Heckman	"		2
Edmunds Alvarez	"		2
Santos Mendez	LABOR		2
Viktor Alvarez	"		2

MATERIALS

QUANTITY	DESCRIPTION	QUANTITY	DESCRIPTION
10	Cutter Wheel Teeth		

Remarks: Panel W-6 Hit metal and concrete 10' down from surface
through. Move to W-4 AT RETRIEVAL SHAFT

Acknowledgement of Work Performed _____ Drill Tech Drilling & Shoring Inc. Representative [Signature]

Caltrans Contractor _____ Date _____
 Verification of Hours and Materials only Responsibility for not agreed at this time

FIELD WORK ORDER / DELAY

Drill Tech Drilling & Shoring, Inc.
 2200 Wymore Way
 Antioch, CA 94509
 925/978-2060

Date Work Performed: 11-19-13
 Name/Job #: 1336-Central Subway
 CCO#: _____
 For: SFMTA

You are hereby authorized and directed to perform the following work as described below:

Complete the portion above for each item of authorized work at the outset.

EQUIPMENT

QTY.	DESCRIPTION	HOURS	QTY.	DESCRIPTION	HOURS
1	CAT 313 (EX-9)	4			
1	John Deere Excavator 1350	1			

LABOR

EMPLOYEE	CLASSIFICATION	HOURS	
		REG.	O.T.
Hector C Perez (Drill Tech)	Operator	4	
Hieu Pham (BIM)	Operator	1	

MATERIALS

QUANTITY	DESCRIPTION	QUANTITY	DESCRIPTION

Remarks On 11-13-13, an obstruction was struck at approx. 10' (el. 49⁰⁰) on panel "W-6". Drill Tech was directed to excavate and remove obstruction. Ex-9 and operator Hector C Perez excavated a 10'x10' hole to expose obstruction. Hieu Pham and the JD135 was used to remove the 4'x5'x1' thick piece of concrete. Hole was back filled.

Acknowledgement of Work Performed
Jan Hong 11/20/13

Drill Tech Drilling & Shoring Inc. Representative

Verified for Time only Equipment active
 Contractor Date

Verification of Hours and Materials only Responsibility for not agreed at this time

Volberding, Benjamin T

From: Hembd, Matthew
Sent: Monday, December 02, 2013 3:52 PM
To: Volberding, Benjamin T
Subject: FW: CSM - W6 Force Account Tags
Attachments: CSM Cutter Teeth Invoice 11-14-13.pdf

Ben,

In our estimate please account for 10 cutter teeth. See attached invoice. Also account for 2 mechanics (operators) and a mechanic truck for 8 hours to replace the teeth.

I will work on the merit for this. Let's try and shoot for the end of this week to have this estimate done so that we can bring it to CMB next week.

Let me know if you have any questions.

Thanks,

Matt Hembd
Office Engineer – Tunnel Contract
SFMTA Central Subway Project
420 4th Street
San Francisco, CA 94107
Direct: (415) 243-0949
Email: Matthew.Hembd@sfmta.com

From: Beau Blume [<mailto:beau.blume@barnard-inc.com>]
Sent: Monday, December 02, 2013 3:48 PM
To: Hembd, Matthew
Cc: jack.sucilsky@barnard-inc.com; 'Desmond Blake'
Subject: RE: CSM - W6 Force Account Tags

10

From: Hembd, Matthew [<mailto:Matthew.Hembd@sfmta.com>]
Sent: Monday, December 02, 2013 3:37 PM
To: 'beau.blume@barnard-inc.com'
Cc: jack.sucilsky@barnard-inc.com; 'Desmond Blake'
Subject: RE: CSM - W6 Force Account Tags

Any idea on how many replacement teeth?

Matt

From: Beau Blume [<mailto:beau.blume@barnard-inc.com>]
Sent: Monday, December 02, 2013 3:33 PM
To: Hembd, Matthew
Cc: Wilson, Sarah H (SFMTA); Benson, Mark; Leong, Mun; jack.sucilsky@barnard-inc.com; 'Desmond Blake'
Subject: RE: CSM - W6 Force Account Tags

Matt –

See the attached invoice for the CSM cutter teeth. I would assume 2 mechanics (operators) and a mechanic truck for 8 hours to replace the teeth.

Thanks,
Beau

From: Hembd, Matthew [<mailto:Matthew.Hembd@sfmta.com>]
Sent: Monday, December 02, 2013 3:18 PM
To: 'beau.blume@barnard-inc.com'
Cc: Wilson, Sarah H (SFMTA); Benson, Mark; Leong, Mun; jack.sucilsky@barnard-inc.com; Desmond Blake
Subject: RE: CSM - W6 Force Account Tags

Beau,

If Drill Tech and/or BIHJV has an invoice for this work can you please provide at you earliest convenience?

Thank you,

Matt

From: Beau Blume [<mailto:beau.blume@barnard-inc.com>]
Sent: Monday, December 02, 2013 3:12 PM
To: Hembd, Matthew
Cc: Wilson, Sarah H (SFMTA); Benson, Mark; Leong, Mun; jack.sucilsky@barnard-inc.com; Desmond Blake
Subject: RE: CSM - W6 Force Account Tags

Matt –

Please account for some cost for the damaged cutter teeth to be removed and the replacement cutter teeth to be installed.

Thanks,
Beau

From: Hembd, Matthew [<mailto:Matthew.Hembd@sfmta.com>]
Sent: Monday, December 02, 2013 2:37 PM
To: jack.sucilsky@barnard-inc.com
Cc: beau.blume@barnard-inc.com; Wilson, Sarah H (SFMTA); Benson, Mark; Leong, Mun
Subject: FW: CSM - W6 Force Account Tags

Jack,

We are trying to establish a ROM for the work required to remove the obstructions at CSM – W6. Can you please verify all that is shown in the attached FA tags is what BIHJV will be seeking for compensation?

DRILL TECH DRILLING & SHORING
 WILL CALL @ OUR CALIF FACILITY
 MUST HAVE PO #
 LIVERMORE, CA 94551
 USA

DRILL TECH DRILLING
 & SHORING, INC.
 2200 WYMORE WAY
 ANTIOCH, CA 94509
 USA

Invoice Date: 11/14/13
 Terms Net 30
 Ship Via BEST WAY
 Ship Date 11/13/13

Customer ID C10260
 P.O. Number PO# 1336 North Beach Subway

Profit Center 13020226
 Our Contact Mike Minihan - BTK Reg

Item No.	Order Qty	Ship Qty	Description	Unit	Unit Price	Total Price
619274		64	CUTTER TOOTH - BFZ314 Former Code: BFZ314	EACH	\$ 58.23	\$ 3,726.40
94670		64	CUTTER TOOTH - BFZ15	EACH	\$ 37.83	\$ 2,420.80
94847		64	CUTTER TOOTH - BFZ16	EACH	\$ 38.51	\$ 2,464.32
94848		64	CUTTER TOOTH - BFZ17	EACH	\$ 38.51	\$ 2,464.32
23246000		1	Freight for Parts-DropShipSales	EACH	\$ 5,700.00	\$ 5,700.00
	Remarks	Joe 510-715-0172 BG-28V # 2133 24pcs. of each size by Air 40pcs. of each by Ground				

Please get w/ Mandy for multiple tracking numbers.

ordered replacements

Based On Sales Quotations 20004413. Based On Sales Orders 21011011. Based On Deliveries 22010841.

Taxable Amount
\$ 16,775.84

Exempt Amount
\$ 0.00

Tax Exemption
\$ 0.00

Subtotal: \$ 16,775.84
 Invoice Discount: \$ 0.00
 Sales Tax: \$ 1,509.83
 Total: \$ 18,285.67



November 13th, 2013

Letter No. 188

Sarah Wilson
Resident Engineer
San Francisco Municipal Transportation Agency
821 Howard Street, 2nd Floor
San Francisco, CA 94103

Subject: Third Street Light Rail Program Phase II – Central Subway Tunneling
Contract No. 1252

Re: Notification of Differing Site Condition – Ret Shaft CSM Panel W6 Obstructions

Ms. Wilson:

In accordance with General Provisions Section 3.04 and other applicable provisions of the Contract Documents, please be advised that BIHJV's subcontractor, Drill Tech, discovered buried obstructions at the Retrieval Shaft location on Nov. 12, 2013. Drill Tech was performing cutter soil mixing (CSM) excavation on panel W6 when the obstructions were discovered, approximately 10' below the ground surface. Afterwards, Drill Tech was able to extract the obstructions where they were determined to be unknown steel members, possibly sections of riveted I-Beams. At this time, it is unknown if the obstructions were removed completely as Drill Tech abandoned planned excavation efforts on the CSM Panel W6 after extraction. The subsurface physical conditions discovered at the Site differ materially from those indicated in the Contract Documents constituting a differing site condition.

Drill Tech tracked the cost impacts, incurred on Nov. 12, 2013, associated with the obstructions on force account tags. Additionally, BIHJV proposes to perform an exploratory excavation within the limits of the affected W6 panel to further investigate and/or confirm that the obstructions were removed completely. Pictures of the buried obstructions, shown on the following pages, were obtained by Drill Tech after extracting each from the excavation.





BARNARD IMPREGILO HEALY JOINT VENTURE
PO Box 78270, San Francisco, CA 94107 | Ph: (415) 546-0799 | Fax: (415) 546-3822

As required of General Provisions Article 3.04D, please promptly investigate and provide a written report of findings to BIHJV. Please let us know if additional information is required to aid in your investigation efforts.

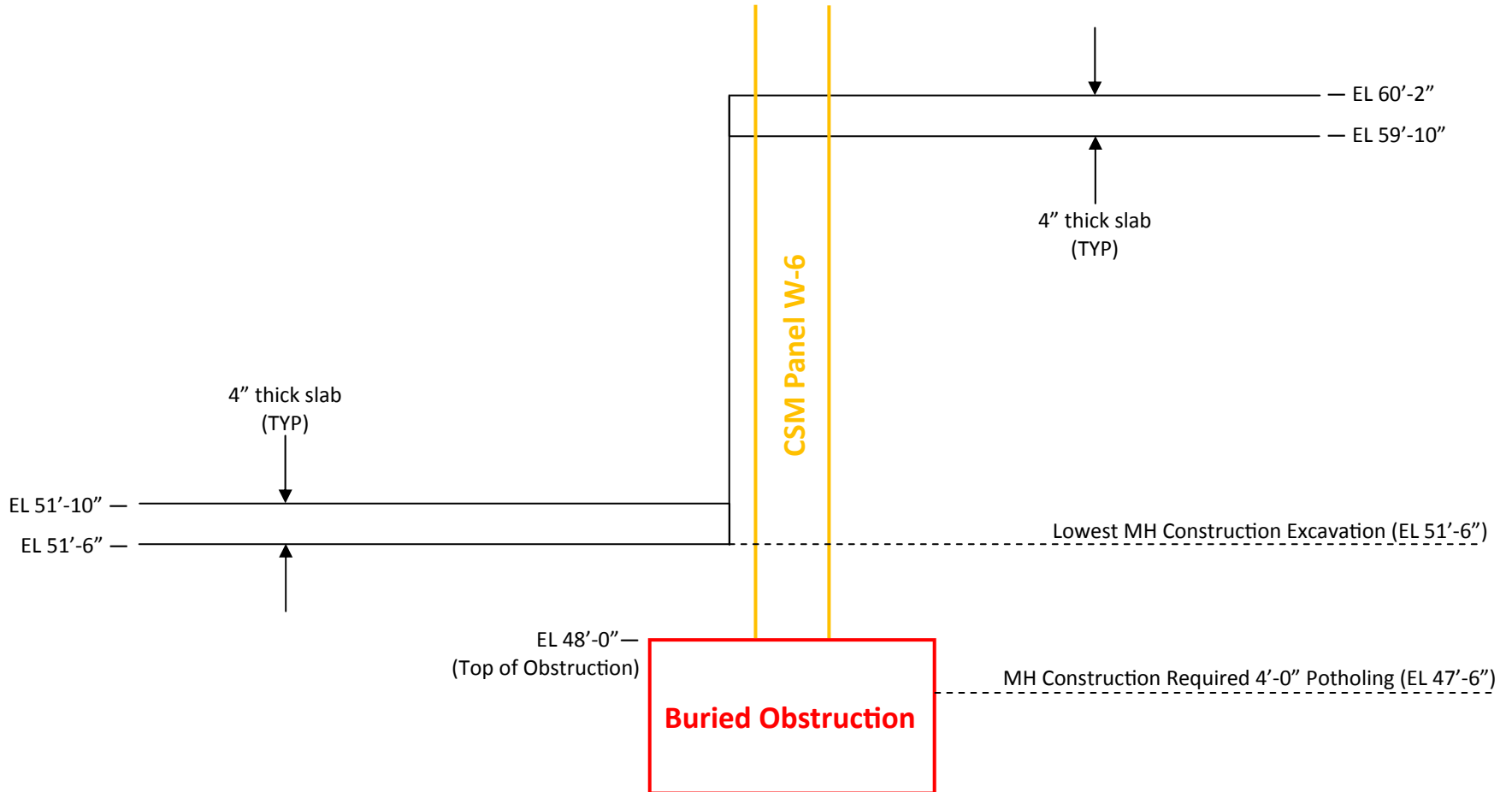
Sincerely,



Ben Campbell *ON BEHALF OF*
Project Manager

Cc: Dan Schall, BIHJV
 Jim McDonald, BIHJV

**CSM Panel W-6 Obstruction
Pagoda Theater Profile Drawing**



NOT TO SCALE

CP/PCC N/A

Contract No. 1252

DSC FINDING OF FACT

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

- | | | |
|----|--|---|
| 1. | REPORTED DATE OF OCCURRENCE | <u>11/12/2013</u> |
| 2. | DATE OF CONTRACTOR'S WRITTEN NOTICE | <u>11/13/2013, BIH Letter No. 188</u> |
| 3. | TYPE OF WORK CONTRACTOR WAS PERFORMING | <u>Excavation for cutter soil mixing (CSM) panel W6</u> |
| 4. | NATURE OF OBSTRUCTION | |

While excavating for CSM panel W6 on November 12th, 2013, the Contractor encountered an unknown object approximately 10' below BIH working grade. The Contractor's crew attempted to drill through obstruction but was unable to break through the object. The crew retracted the rotary drill head and discovered entangled steel debris lodged within the rotary head. On November 19th, 2013, the Contractor excavated to a depth of ten feet and removed portions of a concrete slab and debris. Panel W6 was completed without additional impacts.

- | | | |
|----|-------------------------------------|--|
| 5. | LOCATION OF OBSTRUCTION | <u>Retrieval shaft (formally Pagoda theater). 10' below working grade within CSM panel W6.</u> |
| 6. | METHOD USED TO OVERCOME OBSTRUCTION | |

Drill Tech and BIH excavated to a depth of 10' at the location of CSM panel W6. Crew uncovered concrete debris and slab. An excavator was utilized to remove the obstruction.

- | | | |
|----|--|--|
| 7. | SIGNIFICANT IMPACT ON CONSTRUCTION PROGRESS, IF ANY.(SUPPLIED BY THE CONTRACTOR) | |
| | COST | <u>N / A – Not supplied by Contractor.</u> |
| | TIME | <u>N / A – Not supplied by Contractor.</u> |

- | | | |
|----|---|--|
| 8. | CONCLUSION, WHETHER-OR-NOT OBSTRUCTION CAN BE CLASSIFIED AS A DIFFERING SITE CONDITION (BASED ON CONTRACT DOCUMENTS). | |
|----|---|--|

The contract drawings do not indicate the presence of an obstruction in the area of CSM panel W6 therefore the obstructions are considered a differing site condition. City personnel have verified that all basement roofs, walls and slabs were removed in this location within the Contract 1277 contract. The obstruction was located beneath basement slab demo limits in Contract 1277.

- | | | |
|----|----------------|--|
| 9. | ATTACHMENTS: | |
| | SPECIFICATION | <u>GP Section 3.04</u> |
| | DRAWINGS | <u>Contract Plans 1278 CV-102 and ST-105</u> |
| | INSPECTION RPT | <u>DIR dated 11/12/2013 and 11/19/2013 by T. Huey</u> |
| | OTHER | <u>Construction photos dated 11/12/2013 and 11/19/2013</u> |

Prepared
by:



12/11/13

Sarah Wilson, Resident Engineer

Date

SFMTA Representative

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT

DSC Letter 188: Retrieval Shaft CSM Panel W6 Obstruction

Recommendation: Accept justification of Merit for DSC Letter 188, Retrieval Shaft Cutter Soil Mix (CSM) Panel W6 obstruction. There is no time extension requested or recommended for this work.

Facts: While excavating for CSM panel W6 on November 12th, 2013, the Contractor encountered an unknown object approximately 10' below BIH working grade. The Contractor's crew attempted to drill through obstruction but was unable to break through the object. The crew retracted the rotary drill head and discovered entangled steel debris lodged within the rotary head. On November 19th, 2013, the Contractor excavated to a depth of ten feet and removed portions of a concrete slab and debris. Panel W6 was completed without additional impacts.

Justification: The contract drawings do not indicate the presence of an obstruction in the area of CSM panel W6 therefore the obstructions are considered a differing site condition. City personnel have verified that all basement roofs, walls and slabs were removed in this location within the Contract 1277 contract. The obstruction was located beneath basement slab demo limits in Contract 1277.

Potholing 4 feet below basement slab (which would have cleared the shaft footprint to an elevation approximately 12.5' below BIH working grade) was not performed on Contract 1277, as directed by the Resident Engineer; therefore mitigation of the DSC was not done prior to installation of the CSM panel. The Resident Engineer recommends that costs resulting from the removal of this obstruction be deducted from the final payment to the Contract 1277 Contractor.

Change Type: (2) Unforeseen Condition

By: 

Sarah Wilson
Resident Engineer

12/11/13
Date



Configuration Management Board
Approval

12-11-13
Date

	Current Budget (Amend 5)	Billed thru June 2012	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Total Billed	Remaining	Additional Costs to Complete	Comments		
Task 1- 15:	\$ 5,181,398	\$ 5,407,414	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,407,414	\$ (226,016)		Overbilled	
Task 16:																										
1250	\$ 404,296	\$ 391,637	\$ 2,874	\$ 1,425	\$ 461	\$ 593	\$ 198	\$ 329	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 397,517	\$ 6,779	\$ (1,000)		
1251	\$ 321,694	\$ 307,237	\$ 1,614	\$ 1,143	\$ 527	\$ 96	\$ 2,182	\$ 612	\$ 1,647	\$ 10,307	\$ 3,810	\$ 3,534	\$ 1,317	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 334,026	\$ (12,332)	\$ (2,200)		
1252	\$ 1,060,450	\$ 320,428	\$ 32,751	\$ 35,427	\$ 36,490	\$ 45,246	\$ 39,545	\$ 42,764	\$ 37,256	\$ 40,420	\$ 37,425	\$ 22,899	\$ 31,999	\$ 26,940	\$ 26,202	\$ 39,957	\$ 31,493	\$ 24,446	\$ 25,175	\$ -	\$ 896,861	\$ 163,589	\$ -			
Task 16 subtotal	\$ 1,786,440	\$ 1,019,302	\$ 37,239	\$ 37,995	\$ 37,478	\$ 45,935	\$ 41,925	\$ 43,705	\$ 38,903	\$ 50,727	\$ 41,234	\$ 26,433	\$ 33,316	\$ 26,940	\$ 26,202	\$ 39,957	\$ 31,493	\$ 24,446	\$ 25,175	\$ -	\$ 1,628,404	\$ 158,036	\$ 154,836			
1252 Task 16 Cumulative		\$ 320,428	\$ 353,179	\$ 388,606	\$ 425,096	\$ 470,342	\$ 509,887	\$ 552,651	\$ 591,554	\$ 642,281	\$ 683,515	\$ 709,948	\$ 743,264	\$ 770,204	\$ 796,405	\$ 836,362	\$ 867,855	\$ 892,301	\$ 917,476	\$ 917,476						
1252 Execution Plan (mon)		\$ 29,591	\$ 17,584	\$ 17,194	\$ 17,089	\$ 21,870	\$ 31,884	\$ 32,975	\$ 49,172	\$ 47,160	\$ 37,790	\$ 36,411	\$ 39,651													
1252 Execution Plan (cum)		\$ 253,675	\$ 271,259	\$ 288,453	\$ 305,542	\$ 327,412	\$ 359,296	\$ 392,271	\$ 441,443	\$ 488,603	\$ 526,393	\$ 562,804	\$ 602,455	\$ 602,455	\$ 602,455	\$ 602,455	\$ 602,455	\$ 602,455	\$ 602,455	\$ 602,455	\$ 602,455					
1252 Task 16 Delta		\$ (66,753)	\$ (81,920)	\$ (100,153)	\$ (119,554)	\$ (142,930)	\$ (150,591)	\$ (160,380)	\$ (150,111)	\$ (153,678)	\$ (157,122)	\$ (147,144)	\$ (140,809)	\$ (167,749)	\$ (193,950)	\$ (233,907)	\$ (265,400)	\$ (289,846)	\$ (315,021)	\$ (315,021)	\$ (315,021)					
Task 1- 16	\$ 6,967,838	\$ 5,727,842	\$ 5,218,637	\$ 5,219,393	\$ 5,218,876	\$ 5,227,333	\$ 5,223,323	\$ 5,225,103	\$ 5,220,301	\$ 5,232,125	\$ 5,222,632	\$ 5,207,831	\$ 5,214,714	\$ 5,208,338	\$ 5,207,600	\$ 5,221,355	\$ 5,212,891	\$ 5,205,844	\$ 5,206,573	\$ 5,181,398						

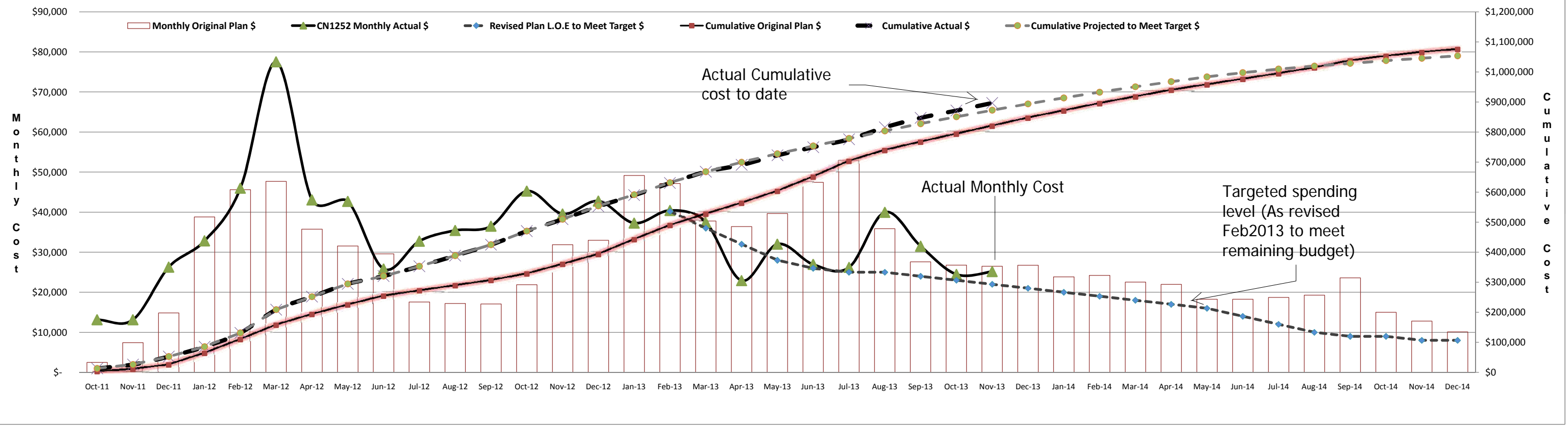
Task/ Description		Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	
16.10 EXP/ Execution Plan																				
Actual		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16.10.PMA/ Proj Mgmt, Admin & Control																				
Actual		\$6,887	\$6,547	\$4,789	\$4,341	\$2,986	\$2,837	\$5,174	\$3,929	\$2,824	\$3,442	\$4,626	\$4,486	\$4,263	\$4,126	\$2,590	\$2,771	\$3,127	\$0	\$0
16.20.C3/ Design Team Rep																				
Actual		\$16,767	\$16,347	\$18,419	\$23,732	\$21,050	\$26,855	\$16,265	\$19,169	\$25,767	\$13,663	\$16,445	\$17,175	\$5,657	\$10,805	\$8,753	\$6,166	\$12,117	\$0	\$0
16.30.C3/ Shop Drawings & RFIs																				
Actual		\$5,763	\$12,007	\$3,291	\$7,457	\$15,246	\$12,297	\$15,580	\$17,322	\$8,834	\$5,794	\$9,875	\$5,278	\$12,040	\$18,392	\$15,822	\$15,509	\$9,931	\$0	\$0
16.40.C3/ Field Visits & Meetings																				
Actual		\$1,743	\$0	\$1,053	\$2,192	\$263	\$0	\$236	\$0	\$0	\$0	\$0	\$0	\$2,105	\$1,598	\$0	\$0	\$0	\$0	\$0
16.40.C3A1 / IRP Support																				
Actual		\$0	\$0	\$0	\$4,342	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16.50.C3/ Change Props & VE																				
Actual		\$1,591	\$526	\$8,939	\$3,182	\$0	\$775	\$0	\$0	\$0	\$0	\$1,053	\$0	\$2,137	\$5,036	\$4,328	\$0	\$0	\$0	\$0
16.60.C3/ As-builts																				
Actual		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL																				
Actual		\$32,751	\$35,427	\$36,490	\$45,246	\$39,545	\$42,764	\$37,256	\$40,420	\$37,425	\$22,899	\$31,999	\$26,940	\$26,202	\$39,957	\$31,493	\$24,446	\$25,175	\$0	\$0

Submittal/ RFI Reviews

Submittals Received - DP1	9	10	10	9	23	8	16	32	28	27	7	16	16	23	21	16			
Submittals Responded - DP1	13	11	10	7	19	13	12	27	25	30	12	17	35	11	7	38			
Submittals Currently In Review	0	0	0	2	0	0	0	1	5	17	10	5	7	20	10	13			
RFI's Received - DP1	8	11	7	26	7	7	7	8	11	10	5	7	5	6	11	5			
RFI's Responded - DP1	8	7	7	13	14	8	11	7	14	10	8	6	5	5	10	3			
RFI's Currently In Review	0	0	0	0	1	0	0	2	0	6	3	4	4	4	2	6			

SNAPSHOT as of APP46 (Nov 2013)	
TASK 16 Total (Base+Mods Excluding Pagoda Shaft)	\$ 1,786,440
1250 Actual Cost	\$ 397,516
1251 Actual Cost	\$ 334,025
1250 Est to Complete	\$ 500
1251 Est to Complete	\$ 700
Subtotal	\$ 732,741
Total 1252 Available	\$ 1,053,699
1252 Actual cost	\$ 896,859
1252 DSDC Remaining	\$ 156,840
Pagoda Shaft Remaining	\$ 18,308

DP1 Task 16.xx.C3 Contract 1252 Design Support during Construction -- Actual Through 11/29/13 [APP 46]



Task No.	Task Name	Authorized Budget \$	SUMMARY BY TASK and CP (Inception thru APP 46 ending 11/29/2013) with Credit for Design Phase																								SUMMARY BY Contract Package														
			Cost Inception thru APP 25 PE 2/29/12		APP 36 PE 01/31/13		APP 37 PE 02/22/13		APP 38 PE 03/29/13		APP 39 PE 04/26/13		APP 39 Credit Memo PE 04/26/13		APP 40 PE 05/31/13		APP 41 PE 06/28/13		APP 42 PE 07/26/13		APP 43 PE 08/30/13		APP 44 PE 09/27/13		APP 45 PE 10/25/13		APP 46 PE 11/29/13		Total Cost To-date	Budget Remaining	1250 (Tasks XX.XX & XX.XX.C1)		1251 (Tasks XX.XX.C2)		1252 (Tasks XX.XX.C3)		TBM Shaft Design (Task 16.50.PAGODA)				
			Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$			Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	
Total Tasks 1 to 15: DESIGN		5,181,398	42,078	5,407,414							(1,705)	(226,012)														40,373	5,181,401	(3)	10,980	\$ 1,448,660	6,808	\$ 772,351	22,585	\$ 2,960,390							
16.10	Construction Support Strategic Execution Pla	24,625	198	35,329																						206	36,526	(11,901)								206	\$ 36,526				
16.10.PMA	Project Management/Admin DSDC	130,661	119	17,309	31	5,174	24	3,929	22	2,824	23	3,442		28	4,626	23	4,486	23	4,262	25	4,126	14	2,589	18	2,772	21	3,127	722	112,944	17,717					722	\$ 112,944					
16.20.C1	Design Team Support – CP-1 (Utilities)	286,298	3,330	260,773																						3,332	261,110	25,188	3,332	\$ 261,110											
16.20.C2	Design Team Support – CP-2 (Utilities)	145,679	753	71,079.0	6	724	-	0																		834	79,811	65,868						834	\$ 79,811						
16.20.C3	Design Team Support – CP-3 (Tunnels)	487,716	101	19,983.0	66	16,265	74	19,169	99	25,767	53	13,663		63	16,445	67	17,175	22	5,657	40	10,805	32	8,753	23	6,166	47	12,117	1,540	370,664	117,052					1,540	\$ 370,664					
16.30.C1	Shop Drawings Reviews and RFI – CP-1 (U	16,102	369	40,127																						369	40,127	(24,025)	369	\$ 40,127											
16.30.C2	Shop Drawings Reviews and RFI – CP-2 (Ut	21,362	936	112,638																						979	120,158	(98,796)						979	\$ 120,158						
16.30.C3	Shop Drawings Reviews and RFI – CP-3 (Tu	103,748	74	11,045	92	15,580	86	17,322	56	8,834	41	5,794		46	9,875	27	5,278	59	12,040	82	18,392	81	15,822	62	15,509	44	9,931	1,463	258,996	(155,248)					1,463	\$ 258,996					
16.30.RS	Retrieval Shaft DSDC	36,766																							4	548	127	17,911	131	18,458	18,308							131	\$ 18,458		
16.40.C1	Field Visits / Meetings – CP-1 (Utilities)	41,251	246	25,888																						246	25,888	15,363	246	\$ 25,888											
16.40.C2	Field Visits / Meetings – CP-2 (Utilities)	61,851	345	41,537																						434	52,625	9,226						434	\$ 52,625						
16.40.C3	Field Visits / Meetings – CP-3 (Tunnels)	101,967	3	597	2	236																				53	10,736	91,231						53	\$ 10,736						
16.40.C3A1	IRP Support		241	39,599																						384	67,897	(67,897)						384	\$ 67,897						
16.50.C1	Change Proposals / Value Engineering – CP	31,948	189	27,068																						189	27,068	4,880	189	\$ 27,068											
16.50.C2	Change Proposals / Value Engineering – CP	49,799	437	56,211																						437	56,211	(6,412)						437	\$ 56,211						
16.50.C3	Change Proposals / Value Engineering – CP	114,224	89	7,145										4	1,053			11	2,137	25	5,036	17	4,328			225	38,752	75,472							225	\$ 38,752					
16.50.PAGODA	TBM Shaft Design	312,592						85	11,655	560	71,718			1,099	172,997	216	28,848	174	22,119	12	1,919	20	2,706	2	630		2,166	312,592	-									2,166	\$ 312,592		
16.60.C1	Conformed Contract Documents – CP-1	28,697	207	22,402																						400	43,324	(14,627)	400	\$ 43,324											
16.60.C2	Conformed Contract Documents – CP-2	43,003	7	979	7	922	95	10,307	38	3,810	29	3,534		16	1,317											216	25,220	17,783						216	\$ 25,220						
16.60.C3	Conformed Contract Documents – CP-3	97,509	4	344																						4	344	97,165						4	\$ 344						
Total Task 16: DSDC		2,135,798	7,618	790,052	203	38,902	279	50,726	298	52,889	705	98,151	-	0	1,255	206,313	332	55,788	296	48,320	196	41,876	164	34,199	108	25,624	238	43,086	14,327	1,959,451	176,347	4,535	\$ 397,516	2,900	\$ 334,025	4,595	\$ 896,859	2,297	\$ 331,050		
1250 (Tasks XX.XX & XX.XX.C1)		404,296	4,341	376,258	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	4,535	397,516	6,780												
1251 (Tasks XX.XX.C2)		321,694	2,478	282,444	13	1,647	95	10,307	38	3,810	29	3,534	-	0	16	1,317	-	0	-	0	-	0	-	0	-	0	2,900	334,025	(12,331)												
1252 (Tasks XX.XX.C3)		1,060,450	799	131,350	191	37,256	184	40,420	176	37,425	117	22,899	-	0	140	31,999	117	26,940	123	26,202	184	39,957	144	31,493	102	24,446	111	25,175	4,595	896,859	163,591										
PAGODA (Task 16.50.PAGODA & 16.30.RS)		349,358							85	11,655	560	71,718	-	0	1,099	172,997	216	28,848	174	22,119	12	1,919	20	2,706	6	1,178	127	17,911	2,297	331,050	18,308										
TOTAL DESIGN AND DSDC		7,317,196	49,696	6,197,466	203	38,902	279	50,726	298	52,889	705	98,151	(1,705)	(226,012)	1,255	206,313	332	55,788	296	48,320	196	41,876	164	34,199	108	25,624	238	43,086	54,700	7,140,852	176,344	15,515	\$ 1,846,177	9,708	\$ 1,106,376	27,180	\$ 3,857,249	2,297	\$ 331,050		

16.0	DP2 Design Services During Construction
16.30	Shop Drawings Review and Consultation during construction
16.30.C4	Shop Drawings Reviews and RFI – (UMS)
16.30.DSC-JG18	Review of Differing Site Condition at UMS S. Headwall Jet Grout Column 18
16.30.C6	Shop Drawings Reviews and RFI – (MOS)
16.40	Field Visits / Meetings
16.40.C4	Field Visits / Meetings – (UMS)
16.40.C6	Field Visits / Meetings – (MOS)
16.0	Totals

Work Completed to Date:

Submittals/ Shop Drawing Reviews - 24
 Resubmittals/ Shop Drawing Reviews - 22
 RFI's - 33 (18 related to rebar fabrication and 8 to mix designs)

Remaining Work to be Completed:

CSL test results for UMS south headwall battered piles
~~Video for determination of permeability test locations at UMS South Headwall~~
~~Strength and permeability tests for jet grout for UMS Headwalls (North and South)~~
 CSL test results for UMS north headwall battered piles
 Strength test results for UMS north headwall piles
 Review of existings CNCRs (4 total?)
~~Review of unanticipated events related to work not yet completed~~

Reasons for Overrun:

Submittals required multiple cycles for approval
 Re-sequencing of pile installation required additional work plan reviews
 Received more RFI's than anticipated
 MOS End Stop issue used hours that were not originally anticipated
 Development of two PCC's that was not covered in the original budget
 Issues related to Jet Grout Column No. 18
 Piecemeal submittals related to jet grouting and CSL test results
 CNCRs

DP2 Planned Hours	DP2 Planned Costs	1252 Planned Hours	1252 Planned Costs	1252 Actual Hours	1252 Actual Costs	DP2 Additional Hours
16,172	\$2,280,333	320	\$48,000	474	\$69,003	40
9,202	\$1,388,094	160	\$24,000	223	\$36,840	40
-	\$0	-	\$0	6	\$1,890	
6,970	\$892,239	160	\$24,000	245	\$30,273	0
1,680	\$253,535	80	\$12,000	28	\$4,296	0
840	\$144,362	40	\$6,000	18	\$2,717	0
840	\$109,173	40	\$6,000	10	\$1,579	0
17,852	\$2,533,868	400	\$60,000	502	\$73,299	40

	16.30.C4 (hrs)	16.40.C4 (hrs)	Total (hrs)	Rate (\$/hr)	Value (\$)
David Abrahams	20	0	20	143.06	\$2,861
Aileen Read	4	0	4	315.05	\$1,260
Tom Lee	16	0	16	241.38	\$3,862
TOTAL					\$7,983

DP2 Additional Costs	DP2 Remaining Hours	DP2 Remaining Costs
\$7,983	15,664	\$2,205,237
\$7,983	8,939	\$1,343,271
\$0	6,725	\$861,966
\$0	1,652	\$249,239
\$0	822	\$141,645
\$0	830	\$107,594
\$7,983	17,316	\$2,454,476

Task	Sum of Revised Budget	Sum of Authorized Amount	Sum of Cost to Date (11/29/2013)	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	\$141,516	\$66,553	\$66,553
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	\$68,216	\$63,853	\$63,853
16.RSCG.1 RSCG Work Plan	\$68,708	\$ 68,708	\$68,216	\$492	\$492
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	\$114,017	\$9,026,027	\$393,783
16.10 Construction Support Strategic Execution Plan	\$21,506	\$ -	\$0	\$21,506	\$0
16.20 Design Team Support	\$2,950,423	\$ 93,600	\$45,997	\$2,904,426	\$47,603
16.30 Shop Drawing Reviews and RFI (CN 1300)	\$3,509,172	\$ 300,000	\$28,894	\$3,480,278	\$271,106
16.30.OTH Other (CN 1300)	\$325,147	\$ 30,000	\$9,809	\$315,338	\$20,191
16.30.RFI Requests for Information (CN 1300)	\$581,500	\$ 30,000	\$7,825	\$573,675	\$22,175
16.30.SUB Submittals (CN 1300)	\$2,572,525	\$ 210,000	\$10,630	\$2,561,895	\$199,370
16.30.Substitution (CN 1300)	\$30,000	\$ 30,000	\$630	\$29,370	\$29,370
16.30.M Construction Phase Project Mmgt and Admin	\$1,326,000	\$ 57,200	\$36,509	\$1,289,491	\$20,691
16.40 Field Visits/Meetings (CN 1300)	\$460,637	\$ 19,500	\$2,617	\$458,020	\$16,883
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

Barnard Impregilo Healy JV

TRANSMITTAL

No. 02719

PO BOX 78270
San Francisco, CA 78270

Phone: (415) 546-0799

Fax: (415) 546-3822

PROJECT: Contract 1252 - Tunnels

DATE: 12/6/2013

TO: SF Municipal Transportation Agency
821 Howard Street
San Francisco, CA 94103

REF: 01 32 13-035 Rev 1
November 2013 Schedule Update

ATTN: Sarah H. Wilson

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
<input type="checkbox"/> Shop Drawings	<input checked="" type="checkbox"/> Approval	<input type="checkbox"/> Approved as Submitted
<input type="checkbox"/> Letter	<input type="checkbox"/> Your Use	<input type="checkbox"/> Approved as Noted
<input type="checkbox"/> Prints	<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned After Loan
<input type="checkbox"/> Change Order	<input type="checkbox"/> Review and Comment	<input type="checkbox"/> Resubmit
<input type="checkbox"/> Plans		<input checked="" type="checkbox"/> Submit
<input type="checkbox"/> Samples	SENT VIA:	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Returned for Corrections
<input checked="" type="checkbox"/> Other: Made from Submittal	<input type="checkbox"/> Separate Cover Via: Mail	<input type="checkbox"/> Due Date:

ITEM NO.	COPIES	DATE	ITEM	NUMBER	REV. NO.	DESCRIPTION	STATUS
1	2	12/6/2013	SUT	01 32 13-035	001	Narrative Rev 1	NEW
2	2	12/6/2013				Segments - Remaining Durations	NEW
3	2	12/6/2013				Schedule Summary Rev 1	NEW
4	2	12/6/2013				Schedule Critical Rev 1	NEW
5	2	12/6/2013				Schedule All Activities Rev 1	NEW
6	1	12/6/2013				CD ROM (.XER, Cash Flow, .xsl, and all PDF's)	NEW

Remarks:

CC:

Signed: _____
Beau Blume

Barnard Impregilo Healy JV

SUBMITTAL

NO. 01 32 13-035

PO BOX 78270
San Francisco, CA 94107

Phone: 415-546-0799
Fax: 415-546-3822

PACKAGE NO: 013213

TITLE: Schedule Update 22 (November 2013)

REQUIRED START: 12/6/2013

PROJECT: Contract 1252 - Tunnels

REQUIRED FINISH: 1/3/2014

DRAWING:

DAYS HELD: 0

STATUS: NEW

DAYS ELAPSED: 0

BIC: SFMTA

DAYS OVERDUE: -28

RECEIVED FROM		SENT TO		RETURNED BY		FORWARDED TO	
BIHJV	BRB	SFMTA	SHW	SFMTA	SHW	BIHJV	BRB

Revision						Drawing					
No.	Description / Remarks	Received	Sent	Returned	Forwarded	Status	Sepias	Prints	Date	Held	Elapsed
001	BIH Submit	12/6/2013	12/6/2013			NEW	0	0		0	0

Schedule Update 22 (November 2013) Narrative

Contract 1252 – Central Subway Tunneling

Barnard Impregilo Healy Joint Venture

SUMMARY

This narrative describes the Project's progress from November 1st, 2013 through November 30th, 2013. In general, progress has continued on submittals specific to the work, instrumentation installation & monitoring, preconstruction surveys, SB TBM Tunneling, NB TBM Tunneling, manning of the compensation grout pipes at 4th and Market, 4th and Harrison, and the Ellis Shaft, completion of the UMS work, support and excavation of the Green Street Shaft, and CSM wall construction at the Retrieval Shaft.

CRITICAL PATH

The critical path work completed this month consists of the completion of the Northbound TBM launch and the start of the installation of the conveyors and facilities for tunneling. While the launch activity was completed in less time than anticipated the installation of the conveyors and facilities necessary for tunneling has taken longer than anticipated.

The critical path continues with the Northbound Tunneling activities until tunneling completion, while the Southbound Tunneling proceeds concurrently and slightly ahead of the Northbound tunneling completion, while the Southbound Tunneling proceeds concurrently and slightly ahead of the Northbound.

Following the tunneling the critical path moves to the cross passages. Cross Passage No. 2 is the first cross passage on the critical path, followed by the excavation and support of Cross Passage No. 4, and finally the construction of Cross Passage No. 5.

Upon completion of the cross passages the critical path returns and finishes at the Portal Structure. The critical activities within the Portal Structure consist of the base slab, walls, utilities, and internal bracing on the west side of the structure. Once complete, the critical base slab, walls, utilities, and internal bracing activities move to the east side of the structure. Upon completion of these Portal Structure activities, the surface final restoration activities complete the critical path and the Project Substantial Completion is achieved.

INSTRUMENTATION

The necessary instrumentation baselines have been obtained for instruments south of approximately STA 128+00.

- TUN-02-8360 Protection - Obtain Baselines @ Others
 - Delete predecessor - TUN-07-1080 Tunneling - Tunnel Southbound (140+50 - 135+00)

- Add predecessor - TUN-07-1170 Tunneling - Tunnel Southbound (128+00 - 103+00)

SUBMITTALS

The necessary pre-condition reports have been submitted and approved for locations south of approximately STA 128+00.

- TUN-02-2130 Approve Pre-Condition Survey Reports (All Others)
 - Delete predecessor - TUN-07-1080 Tunneling - Tunnel Southbound (140+50 - 135+00)
 - Add predecessor - TUN-07-1170 Tunneling - Tunnel Southbound (128+00 - 103+00)

4th STREET & HARRISON COMPENSATION GROUTING

The following activity represents the efforts to be ready to inject compensation grout as needed at the Whole Foods location during the NB TBM launch – no grout was needed, the NB TBM has since cleared this zone, and the activity is complete.

- TUN-03-6030 4th & Harrison Comp Grout - Inject Compensation Grout-NB (Launch)

TUNNELING

The following “TBM Acceptance” activity is included in the schedule for payment purposes. The logic has been revised as follows as this activity has not been billed out at this point.

- TUN-02-6050 TBM South Acceptance
 - Delete predecessor TUN-07-1055 Tunneling - Tunnel Southbound (159+68 - 156+50)
 - Add predecessor TUN-07-1080 Tunneling - Tunnel Southbound (140+50 - 135+00)
 - Delete successor TUN-07-1070 Tunneling - Tunnel Southbound (142+30 - 140+50)
 - Add successor TUN-07-1180 Tunneling - Tunnel Southbound (103+00 - 89+00)

The following activity is being added to represent the southbound TBM compressed air intervention that occurred at STA 141+89 – See RFI 00298 for explanation and confirmation of the mutual agreement made between the SFMTA and BIHJV to abandon the effort and move forward with tunneling.

- TUN-07-1250 Tunneling - Tunnel Southbound (Compressed Air Intervention)

The following SB tunneling activities were performed on a 7 day per week calendar including holidays (‘calendar’) to facilitate the BART under crossing without stopping.

- TUN-07-1070 Tunneling - Tunnel Southbound (142+30 - 140+50)
 - Change calendar to “Calendar”
- TUN-07-1080 Tunneling - Tunnel Southbound (140+50 - 135+00)
 - Change calendar to “Calendar”

4th and Market Compensation grout

The manning of the compensation grout plant at Old Navy / Ross was performed on the same 7 day per week calendar as the SB tunneling during the BART under crossing.

- TUN-05-2040 4th & Market Comp Grout - Inject Compensation Grout (SB)
 - Change calendar to “Calendar” (7 days per week no holidays)

GREEN STREET SHAFT

The following activities at the Green Street shaft were not and are no longer planned to be performed on a 6 day per week calendar, but are now planned to be performed on a 5 day per week calendar.

- TUN-09-1000 Green Street Shaft – Setup
- TUN-09-1010 Green Street Shaft - Pothole Utilities
- TUN-09-1020 Green Street Shaft - Tangent Piles (Piles 1 -30)
- TUN-09-1030 Green Street Shaft - Excavate Shaft and Install Liner
- TUN-09-1040 Green Street Shaft - Install & Pregrout CG Pipes (#s 1 - 12) (Double Shift)
- TUN-09-1100 Green Street Shaft - Install & Pregrout CG Pipes (#s 13 - 24) (Double Shift)
- TUN-09-1110 Green Street Shaft - Install & Pregrout CG Pipes (#s 25 - 36) (Double Shift)

Due to the obstructions encountered when attempting to slipline the sewers in the vicinity of the Green Street shaft the work is unable to be completed prior to the commencement of installation of compensation grout pipes from the Green Street Shaft. As a result the following logic tie is being removed.

- TUN-09-1040 Green Street Shaft - Install & Pregrout CG Pipes (#s 1 - 12) (Double Shift)
 - Delete predecessor - TUN-10-3710 Retrieval Shaft - Sewer Slip Lining Others

RETRIEVAL SHAFT

The original duration for the construction of the CSM walls inclusive of the plant setup was 5 weeks (1 week to setup and 4 weeks of CSM production). To accurately describe the actual progress of the work the following activity has been added, as a result the duration of the subsequent CSM activity is being revised so that the original duration of the CSM walls does not change.

Add the following activity to represent the time setting up the CSM plant and equipment.

- TUN-10-4150 Retrieval Shaft - Soil Mix Walls Setup Plant and Equipment – 5 days

Change the description and duration of the following activities.

- TUN-10-3170 Retrieval Shaft - Soil Mix Walls (Panels 1 -32) - ~~15 day~~ 10 days
- TUN-10-3160 Retrieval Shaft - Soil Mix Walls (Panels 33-57) – 10 days

Note – the durations are not equally proportionate to the panel qty's as the majority of the final panels are secondary or closure panels and take less time to complete.

To overcome the schedule impacts at the Retrieval Shaft created by the unanticipated hardness of the ground (See Letters 186 and 190) the following activity has been performed on a double shift - 6 day per week calendar rather than a 5 day per week calendar as originally planned.

- TUN-10-3160 Retrieval Shaft - Soil Mix Walls (Panels 33-57)
- TUN-10-3170 Retrieval Shaft - Soil Mix Walls (Panels 1 -32) performed on a 5 day per week calendar with the exception of 11/23/13 – the following activity has been added to represent this work.
 - TUN-10-4160 Retrieval Shaft - Saturday CSM Work (11/23/13)

Add the following activities to facilitate payment for the unit price compensation grouting (if necessary).

- TUN-10-4090 Retrieval Shaft - Inject Compensation Grout (SB)
- TUN-10-4100 Retrieval Shaft - Inject Compensation Grout (NB)

Add the following activity to facilitate payment and identify the optional insertion pit construction.

- TUN-10-4140 Retrieval Shaft - Sewer Slip Lining Powell Street (Optional Insertion Pit)

PCC 0015 removed the AWSS work at the Retrieval Shaft. As a result the logic was deleted to the below activities. Once a credit has been agreed to the schedule activities will be deleted and the resources re-allocated accordingly.

- TUN-10-3470 Retrieval Shaft - Remove Existing AWSS
- TUN-10-3480 Retrieval Shaft - Install New AWSS
- TUN-10-3490 Retrieval Shaft - Install AWSS Lateral

QUANTITY TRACKING SPREADSHEET

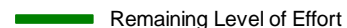





Activity ID	Schedule Activity	Original		Segments Complete		Cummulative (LF)	Acceptable	Cummulative (LF)	Remaining	Remaining
		Duration	QTY (LF)	to Date (LF)	Cummulative (LF)	Excluding "Red and Yellow" Segments (5.5%)	Segments Complete to Date (LF)		QTY (LF)	Duration @ 70' Per Day
TUN-02-8250	Manufacture Segments Northbound (163+52 - 160+00)	12	352	352	352		352	352	-	-
TUN-02-8340	Manufacture Segments Southbound (163+52 - 160+00)	12	352	352	704		352	704	-	-
TUN-02-8190	Manufacture Segments Northbound (160+00 - 142+30)	45	1,770	1,770	2,474		1,770	2,474	-	-
TUN-02-8290	Manufacture Segments Southbound (160+00 - 142+30)	45	1,770	1,770	4,244		1,770	4,244	-	-
TUN-02-8200	Manufacture Segments Northbound (142+30 - 128+00)	48	1,430	1,430	5,674		1,430	5,674	-	-
TUN-02-8300	Manufacture Segments Southbound (142+30 - 128+00)	48	1,430	1,430	7,104		1,430	7,104	-	-
TUN-02-8210	Manufacture Segments Northbound (128+00 - 103+00)	84	2,310	2,310	9,414		2,310	9,414	-	-
TUN-02-8310	Manufacture Segments Southbound (128+00 - 103+00)	84	2,310	2,310	11,724		2,296	11,710	14	1
TUN-02-8220	Manufacture Segments Northbound (103+00 - 88+00)	53	1,500	300	12,024		-	11,710		
TUN-02-8320	Manufacture Segments Southbound (103+00 - 89+00)	50	1,400	369	12,393	11,711	-	11,710		

*** Remaining duration based on total "Green" and "Blue" segments (excluding "Red and Yellow segments"), as of 11/15/13, this consisted of 94.5% of the total segments.

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float	Calendar	2014												2015												
							Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
CSP-1252-UD22 Construction Tunnels Update 22 (November 2013)																															
CP-1252 Contract Milestones																															
TUN-01-1060	Substantial Completion (req'd Apr 12, 2015) - 1171 days	0		May-21-15*	-39	Calendar	◆ TUN-01-1060																								
TUN-01-1070	Final Completion (req'd May 12, 2015) - 1201 days	0		Jun-18-15*	-38	Calendar	◆ TUN-01-1070																								
Northbound Tunneling																															
TUN-06-1030	Tunneling - Install Conveyors & Facilities for Northbound TBM	5	Nov-18-13 A	Dec-06-13	-24	5 d w/ Holiday	■																								
TUN-06-1040	Tunneling - Tunnel Northbound (159+59 - 156+50)	6	Dec-09-13	Dec-16-13	-24	5 d w/ Holiday	■																								
TUN-06-1050	Tunneling - Tunnel Northbound (156+50 - 142+30)	23	Dec-17-13	Jan-20-14	-24	5 d w/ Holiday	■																								
TUN-06-1060	Tunneling - Tunnel Northbound (142+30 - 140+50)	3	Jan-21-14	Jan-23-14	-29	6 d w/ Holiday	■																								
TUN-06-1070	Tunneling - Tunnel Northbound (140+50 - 135+00)	9	Jan-24-14	Feb-03-14	-29	6 d w/ Holiday	■																								
TUN-06-1080	Tunneling - Tunnel Under Existing Bart Tunnels	0	Jan-29-14		-29	6 d w/ Holiday	◆																								
TUN-06-1130	Tunneling - Tunnel Northbound (135+00 - 128+00)	11	Feb-04-14	Feb-15-14	-29	6 d w/ Holiday	■																								
TUN-06-1150	Tunneling - Tunnel Northbound (128+00 - 103+00)	41	Feb-18-14	Apr-05-14	-29	6 d w/ Holiday	■																								
TUN-06-1140	Tunneling - Tunnel Northbound (103+00 - 88+00)	23	Apr-07-14	May-02-14	-29	6 d w/ Holiday	■																								
TUN-06-1090	Tunneling - Tunnel Northbound (88+00 - 85+50)	5	May-03-14	May-08-14	-29	6 d w/ Holiday	■																								
TUN-06-1100	Tunneling - Tunnel Northbound (85+50 - 81+20)	7	May-09-14	May-16-14	-29	6 d w/ Holiday	■																								
TUN-06-1200	Tunneling - Tunnel Northbound (81+20 - 78+40)	10	May-19-14	Jun-02-14	-25	5 d w/ Holiday	■																								
Cross Passages 1-5																															
Cross Passage 2																															
TUN-11-3000	Cross Passage 2 - Excavate and Install Initial Support	15	Jun-03-14	Jun-19-14	-31	6 d w/ Holiday	■																								
TUN-11-3010	Cross Passage 2 - Construct Final Liner (Invert)	7	Jun-20-14	Jun-30-14	-26	5 d w/ Holiday	■																								
TUN-11-3030	Cross Passage 2 - Construct Final Liner (Arch)	15	Jul-01-14	Jul-18-14	-32	6 d w/ Holiday	■																								
TUN-11-3020	Cross Passage 2 Complete	0		Jul-18-14	-38	Calendar	◆																								
Cross passage 4																															
TUN-11-5000	Cross Passage 4 - Excavate & Install Initial Support	15	Jul-21-14	Aug-08-14	-27	5 d w/ Holiday	■																								
Crosspassage 5																															
Cross Passage 5 Construction																															
TUN-11-6200	Cross Passage 5 - Excavate & Install Initial Support (Cross Passage)	15	Aug-11-14	Aug-29-14	-27	5 d w/ Holiday	■																								
TUN-11-6260	Cross Passage 5 - Excavate & Install Initial Support (Sump)	2	Sep-02-14	Sep-03-14	-27	5 d w/ Holiday	■																								
TUN-11-6210	Cross Passage 5 - Construct Final Liner (Sump)	5	Sep-04-14	Sep-10-14	-27	5 d w/ Holiday	■																								
TUN-11-6240	Cross Passage 5 - Construct Final Liner (Invert)	5	Sep-11-14	Sep-17-14	-27	5 d w/ Holiday	■																								
TUN-11-6250	Cross Passage 5 - Construct Final Liner (Arch)	15	Sep-18-14	Oct-08-14	-27	5 d w/ Holiday	■																								
TUN-11-6220	Cross Passage 5 - Install Misc Metals	1	Oct-09-14	Oct-09-14	-27	5 d w/ Holiday	■																								
TUN-11-6230	Cross Passage 5 Complete	0		Oct-09-14	-27	5 d w/ Holiday	◆																								
Portal Structure																															
TUN-12-1000	Portal Structure - Setup Traffic Control for Portal Structure (West)	1	Oct-10-14	Oct-10-14	-32	6 d w/ Holiday	■																								
TUN-12-1010	Portal Structure - Backfill & Prep for Base Slab	6	Oct-11-14	Oct-17-14	-32	6 d w/ Holiday	■																								
TUN-12-1020	Portal Structure - F/R/P Base Slab	12	Oct-18-14	Oct-31-14	-32	6 d w/ Holiday	■																								
TUN-12-1030	Portal Structure - F/R/P Lower Walls (to GL-3 & GL-8)	15	Nov-01-14	Nov-18-14	-32	6 d w/ Holiday	■																								
TUN-12-1200	Portal Structure - F/R/P Roof (to GL-3 & GL-8)	15	Nov-19-14	Dec-11-14	-27	5 d w/ Holiday	■																								
TUN-12-1040	Portal Structure - Construct Base Slab South of Launch Box (West)	7	Dec-12-14	Dec-19-14	-32	6 d w/ Holiday	■																								
TUN-12-1050	Portal Structure - Partial Backfill of Launch Box & Install Bracing	5	Dec-20-14	Dec-26-14	-32	6 d w/ Holiday	■																								
TUN-12-1060	Portal Structure - Install Support Beam & Remove Decking (West)	4	Dec-29-14	Jan-02-15	-27	5 d w/ Holiday	■																								
TUN-12-1070	Portal Structure - F/R/P Upper Wall (West)	12	Jan-03-15	Jan-16-15	-33	6 d w/ Holiday	■																								
TUN-12-1080	Portal Structure - Install Utilities (West)	15	Jan-19-15	Feb-06-15	-28	5 d w/ Holiday	■																								

■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining Work
■ Primary Baseline
 ■ Remaining Work
 ◆ Milestone

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float	Calendar	2014												2015										
							Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
TUN-12-1190	Portal Structure - SFWD Tie-in Utilities (West)	10	Feb-02-15	Feb-13-15	-28	5 d w/ Holiday																							
TUN-12-1090	Portal Structure - Backfill Launch Box & Temp Restore (West)	7	Feb-09-15	Feb-18-15	-28	5 d w/ Holiday																							
TUN-12-1100	Portal Structure - Setup Traffic Control for Portal Structure (East)	1	Feb-19-15	Feb-19-15	-28	5 d w/ Holiday																							
TUN-12-1110	Portal Structure - SFWD Tie-in Utilities (East)	10	Feb-20-15	Mar-05-15	-28	5 d w/ Holiday																							
TUN-12-1120	Portal Structure - Remove Decking & Beams (East)	5	Mar-06-15	Mar-12-15	-28	5 d w/ Holiday																							
TUN-12-1130	Portal Structure - Construct Base Slab South of Launch Box (East)	6	Mar-10-15	Mar-17-15	-28	5 d w/ Holiday																							
TUN-12-1140	Portal Structure - F/R/P Upper Wall (East)	12	Mar-18-15	Mar-31-15	-34	6 d w/ Holiday																							
TUN-12-1150	Portal Structure - F/R/P Remaining Roof Slab	14	Apr-01-15	Apr-16-15	-34	6 d w/ Holiday																							
TUN-12-1170	Portal Structure - East Final Restoration (South of Perry)	10	Apr-17-15	Apr-30-15	-29	5 d w/ Holiday																							
TUN-12-1160	Portal Structure - Backfill Launch Box and Remove Bracing	5	Apr-17-15	Apr-23-15	-29	5 d w/ Holiday																							
TUN-12-1210	Portal Structure - West Final Restoration	15	May-01-15	May-21-15	-29	5 d w/ Holiday																							
TUN-12-1180	Portal Structure - Portal Structure Complete	0		May-21-15	-39	Calendar																							
Contract Close Out		20	May-22-15	Jun-18-15	-28	5 d w/ Holiday																							
Demobilization		20	May-22-15	Jun-18-15	-28	5 d w/ Holiday																							
TUN-13-2050	Demobilization - Remove Contractor & Owner's Offices	20	May-22-15	Jun-18-15	-28	5 d w/ Holiday																							
TUN-13-2060	Demobilization - Punchlist Activities	20	May-22-15	Jun-18-15	-28	5 d w/ Holiday																							
TUN-13-2080	Demobilization - Transfer Site to Subsequent Contractor(s)	1	Jun-18-15	Jun-18-15	-28	5 d w/ Holiday																							

 Remaining Level of Effort
  Actual Work
  Critical Remaining Work
 Primary Baseline
  Remaining Work
  Milestone

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float	Calendar	2011												2012												2013												2014												2015											
							J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
CSP-1252-UD22 Construction Tunnels Update 22 (November 2013)		1276	Jun-08-11 A	Jun-18-15	-35	Calendar																																																												
CP-1252 Contract Milestones		1472	Jun-08-11 A	Jun-18-15	-38	Calendar																																																												
TUN-01-1000	Bid Date	0	Jun-08-11 A			Calendar	◆ TUN-01-1000																																																											
TUN-01-1010	Award	0	Aug-08-11 A			Calendar	◆ TUN-01-1010																																																											
TUN-01-1020	NTP 1 - Engineering & Equipment Procurement	0	Jan-27-12 A			Calendar	◆ TUN-01-1020																																																											
TUN-01-1030	NTP 2 - Launch Box & Tunnel Prep Construction	0	Mar-14-12 A			Calendar	◆ TUN-01-1030																																																											
TUN-01-1090	Release of Work Under Disputed Authorization (No. 1)	0	Apr-13-12 A			Calendar	◆ TUN-01-1090																																																											
TUN-01-1100	Release of Work Under Disputed Authorization (No. 2)	0	Oct-15-12 A			Calendar	◆ TUN-01-1100																																																											
TUN-01-1110	Release of Work Under Disputed Authorization (No. 3)	0	Oct-15-12 A			Calendar	◆ TUN-01-1110																																																											
TUN-01-1040	NTP 3 - Tunnel & Retrieval Shaft Construction	0	Oct-15-12 A			Calendar	◆ TUN-01-1040																																																											
TUN-01-1120	Release of Work Under Disputed Authorization (No. 4)	0	Oct-15-12 A			Calendar	◆ TUN-01-1120																																																											
TUN-01-1050	Milestone 1 - Complete Cross Passages 1&2 (req'd June 10, 2014) - 865 days	0		Jul-18-14*	-38	Calendar	◆ TUN-01-1050																																																											
TUN-01-1080	Milestone 2 - Complete Cross Passages 3&4 (req'd Aug 13, 2014) - 929 days	0		Sep-10-14*	-28	Calendar	◆ TUN-01-1080																																																											
TUN-01-1060	Substantial Completion (req'd Apr 12, 2015) - 1171 days	0		May-21-15*	-39	Calendar	◆ TUN-01-1060																																																											
TUN-01-1070	Final Completion (req'd May 12, 2015) - 1201 days	0		Jun-18-15*	-38	Calendar	◆ TUN-01-1070																																																											
General Conditions		1169	Aug-01-11 A	Jun-18-15	-35	Calendar																																																												
TUN-02-1000	Project Bonds	10	Aug-01-11 A	Aug-08-11 A		Calendar	TUN-02-1000																																																											
TUN-02-1010	Provide GL & W/C Insurance	1321	Aug-08-11 A	May-21-15	-39	Calendar	TUN-02-1010																																																											
TUN-02-1020	Planning and Preliminary Engineering	219	Aug-08-11 A	Mar-14-12 A		Calendar	TUN-02-1020																																																											
TUN-02-1030	Provide Builder's Risk & RR Insurance	492	Aug-08-11 A	Oct-15-12 A		Calendar	TUN-02-1030																																																											
TUN-02-1060	GE-9: Dispute Review Board Allowance	1130	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1060																																																											
TUN-02-1070	GE:10 Partnering Allowance	1130	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1070																																																											
TUN-02-1080	GE-11:Socially/Econ. Disadvantaged Employment Allowance	1130	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1080																																																											
TUN-02-1090	GE-12: Relocation of Existing Lighting Cont. Equipment Allowance	1130	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1090																																																											
TUN-02-1100	GE-13: Traffic Control-City Personnel Allowance	1130	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1100																																																											
TUN-02-1110	GE-7: Repair of Category B Pipes Allowance	1130	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1110																																																											
TUN-02-1120	GE-8: Environmental Mitigation Allowance	1130	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1120																																																											
TUN-02-1040	BP-2 : Protection and Monitoring Allowance	1130	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1040																																																											
TUN-02-1050	ES-8: Additional Costs of Hazardous Waste Allowance	1130	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1050																																																											
Contract Amendments		0	Mar-14-12 A	Jun-18-15	-38	Calendar																																																												
TUN-02-1130	CA-2: SFMTA Excess GL Insurance Credit	0	Mar-14-12 A	Jun-18-15	-38	Calendar	TUN-02-1130																																																											
Contract Modifications		0	Feb-21-13 A	Apr-25-14	381	Calendar																																																												
TUN-02-1140	CM-3: COR Nos. 10 and 29	0	Feb-21-13 A	Feb-22-13 A		Calendar	TUN-02-1140																																																											
TUN-02-1150	CM-4: PCC No. 9	0	Feb-21-13 A	Feb-22-13 A		Calendar	TUN-02-1150																																																											
TUN-02-1160	CM-5: COR Nos. 7, 22, and 27	0	Feb-21-13 A	Feb-22-13 A		Calendar	TUN-02-1160																																																											
TUN-02-1170	CM-6: COR No. 12	0	Feb-21-13 A	Feb-22-13 A		Calendar	TUN-02-1170																																																											
TUN-02-1180	CM-7: PCC No. 1	0	Feb-21-13 A	Feb-22-13 A		Calendar	TUN-02-1180																																																											
TUN-02-1190	CM-9: PCC No. 11	0	Mar-22-13 A	Mar-23-13 A		Calendar	TUN-02-1190																																																											
TUN-02-1200	CM-10: CORs No. 6 and 41	0	Mar-22-13 A	Mar-23-13 A		Calendar	TUN-02-1200																																																											
TUN-02-1210	CM-11: PCC No. 7	0	Mar-22-13 A	Mar-23-13 A		Calendar	TUN-02-1210																																																											
TUN-02-1220	CM-12: COR No. 38	0	Mar-22-13 A	Mar-23-13 A		Calendar	TUN-02-1220																																																											
TUN-02-1230	CM-13: COR Nos. 31, 47, 50, 58, and 66	0	Mar-22-13 A	Mar-23-13 A		Calendar	TUN-02-1230																																																											
TUN-02-1240	CM-14: COR Nos. 39 and 44	0	Mar-22-13 A	Mar-23-13 A		Calendar	TUN-02-1240																																																											
TUN-02-1250	CM-15: COR No. 26	0	May-15-13 A	May-16-13 A		Calendar	TUN-02-1250																																																											
TUN-02-1260	CM-16: COR Nos. 46, 48, and 68	0	Jul-11-13 A	Jul-12-13 A		Calendar	TUN-02-1260																																																											
TUN-02-1270	CM-17: COR Nos. 73, 76, and 81	0	Jul-11-13 A	Jul-12-13 A		Calendar	TUN-02-1270																																																											

█ Remaining Level of Effort
 █ Primary Baseline
 █ Remaining Work
█ Actual Level of Effort
 █ Actual Work
 █ Critical Remaining Work

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float	Calendar	2011					2012					2013					2014					2015													
							J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
TUN-CM8-1030	Ellis Shaft - Jet Grout Test Cure Time	14	Sep-13-12 A	Sep-27-12 A		Calendar																																		
TUN-CM8-1050	Ellis Shaft - Perform Jet Grout Test	5	Oct-01-12 A	Oct-09-12 A		5 d w/ Holiday																																		
TUN-CM8-1060	Ellis Shaft - Confirm Test Jet Grout Results	20	Oct-10-12 A	Mar-18-13 A		5 d w/ Holiday																																		
ELLIS SHAFT - EXCAVATION AND COMP GROUTING		280	Mar-11-13 A	Feb-18-14	356																																			
TUN-CM8-1070	Ellis Shaft - Move in Drill Crew	3	Mar-11-13 A	Mar-14-13 A		6 d Mor w/ Holiday																																		
TUN-CM8-1080	Ellis Shaft - Move in Plant	3	Mar-11-13 A	Mar-22-13 A		6 d Mor w/ Holiday																																		
TUN-CM8-1090	Ellis Shaft - Excavate Shaft/ Install Liner	20	Mar-11-13 A	May-18-13 A		6 d Mor w/ Holiday																																		
TUN-08-1150	Ellis Shaft - Setup Drill Platform	7	May-28-13 A	Jun-08-13 A		6 d Mor w/ Holiday																																		
TUN-08-1040	Ellis Shaft - Install CG Pipes (#s 1 - 10)	11	Jun-10-13 A	Jul-13-13 A		6 d Mor w/ Holiday																																		
TUN-08-1100	Ellis Shaft - Install CG Pipes (#s 11 - 20)	11	Jul-15-13 A	Jul-20-13 A		6 d Mor w/ Holiday																																		
TUN-08-1110	Ellis Shaft - Install CG Pipes (#s 21 - 30)	11	Jul-22-13 A	Aug-06-13 A		6 d Mor w/ Holiday																																		
TUN-08-1120	Ellis Shaft - Install CG Pipes (#s 31 - 35)	5	Aug-07-13 A	Aug-10-13 A		6 d Mor w/ Holiday																																		
TUN-08-1250	Ellis Shaft - Re-drill Hole (ES2-06)	1	Aug-12-13 A	Aug-12-13 A		5 d Mor w/ Holiday																																		
TUN-08-1260	Ellis Shaft - Install CG Pipes (#s 36 - 40)	6	Aug-13-13 A	Aug-17-13 A		6 d Mor w/ Holiday																																		
TUN-08-1140	Ellis Shaft - Install CG Pipes (#s 41 - 55) (Double Shift)	6	Aug-19-13 A	Aug-26-13 A		6 d Mor w/ Holiday																																		
TUN-08-1210	Ellis Shaft - Setup and Survey for Joker Holes	3	Aug-27-13 A	Aug-30-13 A		5 d Mor w/ Holiday																																		
TUN-08-1220	Ellis Shaft - Install Joker Holes	5	Sep-03-13 A	Sep-09-13 A		5 d Mor w/ Holiday																																		
TUN-08-1160	Ellis Shaft - Pregrout CG Pipes (#s 1 - 10) (Double Shift)	3	Sep-10-13 A	Sep-17-13 A		6 d Mor w/ Holiday																																		
TUN-08-1170	Ellis Shaft - Pregrout CG Pipes (#s 11 - 20) (Double Shift)	3	Sep-18-13 A	Sep-20-13 A		6 d Mor w/ Holiday																																		
TUN-08-1180	Ellis Shaft - Pregrout CG Pipes (#s 21 - 30) (Double Shift)	3	Sep-21-13 A	Sep-25-13 A		6 d Mor w/ Holiday																																		
TUN-08-1190	Ellis Shaft - Pregrout CG Pipes (#s 31 - 40)	5	Sep-26-13 A	Oct-03-13 A		6 d Mor w/ Holiday																																		
TUN-08-1240	Ellis Shaft - Backfill Grout Obstructed Holes	2	Oct-04-13 A	Oct-07-13 A		5 d Mor w/ Holiday																																		
TUN-08-1200	Ellis Shaft - Pregrout CG Pipes (#s 41 - 55)	5	Oct-07-13 A	Oct-12-13 A		6 d Mor w/ Holiday																																		
TUN-08-1130	Ellis Shaft Construction and CG Pipe Installations Complete	0		Oct-12-13 A		Calendar																																		
TUN-08-1060	Ellis Shaft - Inject Compensation Grout (SB)	8	Nov-27-13 A	Dec-02-13	-1	Calendar																																		
TUN-08-1050	Ellis Shaft - Inject Compensation Grout (NB)	8	Jan-24-14	Feb-01-14	-28	6 d w/ Holiday																																		
TUN-08-1070	Ellis Shaft - Backfill Shaft	7	Feb-03-14	Feb-10-14	317	6 d Mor w/ Holiday																																		
TUN-08-1080	Ellis Shaft - Restore Site	5	Feb-11-14	Feb-18-14	263	5 d Mor w/ Holiday																																		
TUN-08-1090	Ellis Shaft - Compensation Grouting Complete	0		Feb-18-14	411	Calendar																																		
Green Street Compensation Grouting		225	Aug-05-13 A	May-19-14	283																																			
TUN-09-1140	Green Street Shaft - 90 Day Notice	90	Aug-05-13 A	Nov-03-13 A		Calendar																																		
TUN-09-1000	Green Street Shaft - Setup	3	Nov-04-13 A	Nov-04-13 A		5 d w/ Holiday																																		
TUN-09-1130	Green Street Shaft Commence Work	0	Nov-04-13 A			5 d w/ Holiday																																		
TUN-09-1010	Green Street Shaft - Pothole Utilities	1	Nov-05-13 A	Nov-07-13 A		5 d w/ Holiday																																		
TUN-09-1020	Green Street Shaft - Tangent Piles (Piles 1 -30)	15	Nov-08-13 A	Nov-15-13 A		5 d w/ Holiday																																		
TUN-09-1030	Green Street Shaft - Excavate Shaft and Install Liner	10	Nov-18-13 A	Dec-09-13	4	5 d w/ Holiday																																		
TUN-09-1040	Green Street Shaft - Install & Pregrout CG Pipes (#s 1 - 12) (Double Shift)	7	Dec-10-13	Dec-18-13	4	5 d w/ Holiday																																		
TUN-09-1100	Green Street Shaft - Install & Pregrout CG Pipes (#s 13 - 24) (Double Shift)	7	Dec-19-13	Dec-30-13	4	5 d w/ Holiday																																		
TUN-09-1110	Green Street Shaft - Install & Pregrout CG Pipes (#s 25 - 36) (Double Shift)	7	Dec-31-13	Jan-09-14	4	5 d w/ Holiday																																		
TUN-09-1120	Green Street Shaft - Install & Pregrout CG Pipes (#s 37 - 48) (Double Shift)	7	Jan-10-14	Jan-17-14	5	6 d w/ Holiday																																		
TUN-09-1060	Green Street Shaft - Inject Compensation Grout (SB)	4	Mar-24-14	Mar-27-14	-2	6 d w/ Holiday																																		
TUN-09-1050	Green Street Shaft - Inject Compensation Grout (NB)	4	May-03-14	May-07-14	-28	6 d w/ Holiday																																		
TUN-09-1070	Green Street Shaft - Backfill Shaft	5	May-08-14	May-13-14	273	6 d w/ Holiday																																		
TUN-09-1080	Green Street Shaft - Restore Site	5	May-14-14	May-19-14	273	6 d w/ Holiday																																		
TUN-09-1090	Green Street Shaft Installations Complete	0		May-19-14	273	6 d w/ Holiday																																		
Retrieval Shaft		677	Aug-13-12 A	Oct-22-14	173																																			

█ Remaining Level of Effort
 ▬ Primary Baseline
 █ Remaining Work
█ Actual Level of Effort
 █ Actual Work
 █ Critical Remaining Work

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float	Calendar	2011												2012												2013												2014												2015											
							J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
Retrieval Shaft (PCC 10)		677	Aug-13-12 A	Oct-22-14	173																																																													
Retrieval Shaft Design & Permitting		58	Sep-02-13 A	Dec-04-13	34																																																													
TUN-10-3660	Retrieval Shaft - Execute Change Order - SFMTA	0		Sep-02-13 A		5 d w/ Holiday																																																												
TUN-10-4040	Retrieval Shaft - Procure Comp Grout Equipment and Materials	21	Sep-20-13 A	Dec-04-13	-14	Calendar																																																												
TUN-10-3670	Retrieval Shaft - Demolition Complete - SFMTA	0		Sep-24-13 A		5 d w/ Holiday																																																												
TUN-10-3500	Retrieval Shaft - Compensation Grouting Design Complete - SFMTA	0		Oct-23-13 A		5 d w/ Holiday																																																												
TUN-10-3540	Retrieval Shaft - SFMTA Permit Issuance incl. DBI Plan Check	0		Dec-02-13	30	5 d w/ Holiday																																																												
Retrieval Shaft Utilities & Restorations		120	Sep-17-13 A	Mar-20-14	361																																																													
TUN-10-4070	Retrieval Shaft - Encounter DSC in Sewers Other (Green and Columbus)	0	Sep-17-13 A			5 d Mor w/ Holiday																																																												
TUN-10-3700	Retrieval Shaft - Sewer Slip Lining Columbus Street (80+41 to 81+50)	5	Oct-28-13 A	Nov-27-13 A		5 d w/ Holiday																																																												
TUN-10-4020	Retrieval Shaft - Start Utilities	0	Oct-28-13 A			5 d w/ Holiday																																																												
TUN-10-4130	Retrieval Shaft - Sewer Slip Lining Others (81+50 to 83+85)	15	Nov-19-13 A	Nov-27-13 A		5 d Mor w/ Holiday																																																												
TUN-10-3640	Retrieval Shaft - Sewer Slip Lining Powell Street (Union to Filbert)	5	Jan-02-14	Jan-08-14	4	5 d Mor w/ Holiday																																																												
TUN-10-4140	Retrieval Shaft - Sewer Slip Lining Powell Street (Optional Insertion Pit)	2	Jan-02-14	Jan-03-14	26	5 d Mor w/ Holiday																																																												
TUN-10-3710	Retrieval Shaft - Sewer Slip Lining Others	15	Jan-02-14	Jan-22-14	43	5 d Mor w/ Holiday																																																												
TUN-10-3470	Retrieval Shaft - Remove Existing AWSS	15	Jan-02-14	Jan-22-14	287	5 d Mor w/ Holiday																																																												
TUN-10-4030	Retrieval Shaft - Sewer Slip Lining Union Street (Columbus to Powell)	5	Jan-09-14	Jan-15-14	23	5 d Mor w/ Holiday																																																												
TUN-10-3690	Retrieval Shaft - Restore Sewer Connections	15	Jan-16-14	Feb-05-14	23	5 d w/ Holiday																																																												
TUN-10-3480	Retrieval Shaft - Install New AWSS	15	Jan-23-14	Feb-12-14	287	5 d Mor w/ Holiday																																																												
TUN-10-4050	Retrieval Shaft - Restore Sewer Manholes	10	Feb-06-14	Feb-20-14	23	5 d w/ Holiday																																																												
TUN-10-3490	Retrieval Shaft - Install AWSS Lateral	5	Feb-13-14	Feb-20-14	287	5 d Mor w/ Holiday																																																												
TUN-10-3630	Retrieval Shaft - Restore Median & Landscaping	10	Feb-21-14	Mar-06-14	248	5 d w/ Holiday																																																												
TUN-10-3650	Retrieval Shaft - Pavement Restoration	10	Mar-07-14	Mar-20-14	248	5 d w/ Holiday																																																												
Retrieval Shaft Instrumentation		66	Aug-20-13 A	Oct-22-14	140																																																													
TUN-10-4110	Retrieval Shaft - Install Instrumentation	0	Sep-02-13 A	Jan-28-14	-10	5 d w/ Holiday																																																												
TUN-10-4120	Retrieval Shaft - Monitor Instrumentation	0	Sep-19-13 A	Oct-22-14	112	5 d w/ Holiday																																																												
Restaurant		66	Aug-20-13 A	Oct-29-13 A																																																														
TUN-10-3890	Retrieval Shaft - Access for Pre-Excavation Condition Surveys Restaurant	0	Aug-20-13 A			5 d w/ Holiday																																																												
TUN-10-3900	Retrieval Shaft - Pre-Excavation Condition Surveys BIH Restaurant	5	Aug-20-13 A	Aug-23-13 A		5 d w/ Holiday																																																												
TUN-10-3910	Retrieval Shaft - Pre-Excavation Condition Surveys SFMTA/Owner Restaurant	10	Aug-26-13 A	Aug-30-13 A		Calendar																																																												
TUN-10-3920	Retrieval Shaft - Access for LLS Restaurant	0	Aug-30-13 A			5 d w/ Holiday																																																												
TUN-10-3840	Retrieval Shaft - Install Instrumentation LLS Restaurant	3	Sep-16-13 A	Sep-18-13 A		5 d w/ Holiday																																																												
TUN-10-3870	Retrieval Shaft - Baseline LLS Restaurant	5	Sep-19-13 A	Sep-24-13 A		Calendar																																																												
TUN-10-3850	Retrieval Shaft - Access for (BSP, MSPS, Tilt, AMTS) Restaurant	0	Sep-26-13 A			5 d w/ Holiday																																																												
TUN-10-3860	Retrieval Shaft - Install Instrumentation (BSP, MSPS, Tilt) Restaurant	5	Sep-26-13 A	Oct-04-13 A		5 d w/ Holiday																																																												
TUN-10-3880	Retrieval Shaft - Baseline (BSP & AMTS) Restaurant	15	Oct-14-13 A	Oct-29-13 A		Calendar																																																												
Dentist Building		66	Aug-21-13 A	Oct-29-13 A																																																														
TUN-10-3800	Retrieval Shaft - Access for Pre-Excavation Condition Surveys Dentist	0	Aug-21-13 A			5 d w/ Holiday																																																												
TUN-10-3810	Retrieval Shaft - Pre-Excavation Condition Surveys BIH Dentist	5	Aug-21-13 A	Aug-26-13 A		5 d w/ Holiday																																																												
TUN-10-3820	Retrieval Shaft - Pre-Excavation Condition Surveys SFMTA/Owner Dentist	10	Aug-27-13 A	Sep-04-13 A		Calendar																																																												
TUN-10-3750	Retrieval Shaft - Access for (BSP, MSPS, Tilt, AMTS) Dentist	0	Sep-27-13 A			5 d w/ Holiday																																																												
TUN-10-3830	Retrieval Shaft - Access for LLS Dentist	0	Sep-27-13 A			5 d w/ Holiday																																																												
TUN-10-3140	Retrieval Shaft - Install Instrumentation LLS Dentist	3	Sep-30-13 A	Oct-10-13 A		5 d w/ Holiday																																																												
TUN-10-3760	Retrieval Shaft - Install Instrumentation (BSP, MSPS, Tilt) Dentist	5	Oct-03-13 A	Oct-14-13 A		5 d w/ Holiday																																																												
TUN-10-3780	Retrieval Shaft - Baseline LLS Dentist	5	Oct-11-13 A	Oct-16-13 A		Calendar																																																												
TUN-10-3790	Retrieval Shaft - Baseline (BSP & AMTS) Dentist	15	Oct-14-13 A	Oct-29-13 A		Calendar																																																												
Garage		66	Aug-21-13 A	Oct-29-13 A																																																														

■ Remaining Level of Effort
■ Primary Baseline
■ Remaining Work
■ Actual Level of Effort
■ Actual Work
■ Critical Remaining Work

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Total Float	Calendar	2011												2012												2013												2014												2015											
							J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
Crosspassage 1		99	Mar-05-14	Jun-24-14	-13																																																													
TUN-11-2000	Cross Passage 1 - Install Vacuum Point Dewatering System	5	Mar-05-14	Mar-11-14	7	5 d w/ Holiday																																																												
TUN-11-2050	Cross Passage 1 - Dewatering System Drawdown	28	Mar-12-14	Apr-08-14	9	Calendar																																																												
TUN-11-2040	Cross Passage 1 - Excavate and Install Initial Support	15	May-02-14	May-22-14	-10	5 d w/ Holiday																																																												
TUN-11-2010	Cross Passage 1 - Construct Final Liner (Invert)	7	May-23-14	Jun-03-14	-10	5 d w/ Holiday																																																												
TUN-11-2030	Cross Passage 1 - Construct Final Liner (Arch)	15	Jun-04-14	Jun-24-14	-10	5 d w/ Holiday																																																												
TUN-11-2020	Cross Passage 1 Complete	0		Jun-24-14	-14	Calendar																																																												
Cross Passage 2		41	Jun-03-14	Jul-18-14	-34																																																													
TUN-11-3000	Cross Passage 2 - Excavate and Install Initial Support	15	Jun-03-14	Jun-19-14	-31	6 d w/ Holiday																																																												
TUN-11-3010	Cross Passage 2 - Construct Final Liner (Invert)	7	Jun-20-14	Jun-30-14	-26	5 d w/ Holiday																																																												
TUN-11-3030	Cross Passage 2 - Construct Final Liner (Arch)	15	Jul-01-14	Jul-18-14	-32	6 d w/ Holiday																																																												
TUN-11-3020	Cross Passage 2 Complete	0		Jul-18-14	-38	Calendar																																																												
Crosspassage 3		46	Jun-25-14	Aug-15-14	-3																																																													
TUN-11-4000	Cross Passage 3 - Excavate & Install Initial Support	15	Jun-25-14	Jul-16-14	-9	5 d w/ Holiday																																																												
TUN-11-4010	Cross Passage 3 - Construct Final Liner (Invert)	7	Jul-17-14	Jul-25-14	-9	5 d w/ Holiday																																																												
TUN-11-4030	Cross Passage 3 - Construct Final Liner (Arch)	15	Jul-28-14	Aug-15-14	-2	5 d w/ Holiday																																																												
TUN-11-4020	Cross Passage 3 Complete	0		Aug-15-14	-2	Calendar																																																												
Cross passage 4		46	Jul-21-14	Sep-10-14	-24																																																													
TUN-11-5000	Cross Passage 4 - Excavate & Install Initial Support	15	Jul-21-14	Aug-08-14	-27	5 d w/ Holiday																																																												
TUN-11-5010	Cross Passage 4 - Construct Final Liner (Invert)	7	Aug-11-14	Aug-19-14	-19	5 d w/ Holiday																																																												
TUN-11-5030	Cross Passage 4 - Construct Final Liner (Arch)	15	Aug-20-14	Sep-10-14	-19	5 d w/ Holiday																																																												
TUN-11-5020	Cross Passage 4 Complete	0		Sep-10-14	-28	Calendar																																																												
Crosspassage 5		225	Jan-25-14	Oct-09-14	158																																																													
Cross Passage 5 Utilities		13	Sep-02-14	Sep-18-14	-12	5 d Mor w/ Holiday																																																												
TUN-11-6100	Cross Passage 5 Ground Improvements - Setup Traffic Control	1	Sep-02-14	Sep-02-14	-12	5 d Mor w/ Holiday																																																												
TUN-11-6120	Cross Passage 5 Ground Improvements - Drill / Install Riser Pipe	2	Sep-03-14	Sep-04-14	-12	5 d Mor w/ Holiday																																																												
TUN-11-6130	Cross Passage 5 Ground Improvements - Install Sewer Manhole	5	Sep-05-14	Sep-11-14	-12	5 d Mor w/ Holiday																																																												
TUN-11-6140	Cross Passage 5 Ground Improvements - Restore Site	5	Sep-12-14	Sep-18-14	-12	5 d Mor w/ Holiday																																																												
Cross Passage 5 Ground Improvements		202	Jan-25-14	Sep-15-14	180																																																													
TUN-11-6110	Cross Passage 5 Ground Freeze - Drill and Install Freeze & Temperature Pipes (F	10	Jan-25-14	Feb-23-14	10	Weekends																																																												
TUN-11-6330	Cross Passage 5 Ground Freeze - Drill and Install Freeze & Temperature Pipes (F	10	Mar-01-14	Mar-30-14	10	Weekends																																																												
TUN-11-6270	Cross Passage 5 Ground Freeze - Install & Commission Freeze Plant & Equip	10	Mar-31-14	Apr-11-14	27	5 d w/ Holiday																																																												
TUN-11-6290	Cross Passage 5 Ground Freeze - Develop Freeze	42	Apr-12-14	May-23-14	39	Calendar																																																												
TUN-11-6310	Cross Passage 5 Ground Freeze - Remove Freeze Plant & Equipment	5	Sep-02-14	Sep-08-14	144	5 d w/ Holiday																																																												
TUN-11-6320	Cross Passage 5 Ground Freeze - Abandon Pipes & Repair Segments	5	Sep-09-14	Sep-15-14	144	5 d w/ Holiday																																																												
TUN-11-6150	Cross Passage 5 Ground Freeze Complete	0		Sep-15-14	209	Calendar																																																												
Cross Passage 5 Construction		43	Aug-11-14	Oct-09-14	-27	5 d w/ Holiday																																																												
TUN-11-6200	Cross Passage 5 - Excavate & Install Initial Support (Cross Passage)	15	Aug-11-14	Aug-29-14	-27	5 d w/ Holiday																																																												
TUN-11-6260	Cross Passage 5 - Excavate & Install Initial Support (Sump)	2	Sep-02-14	Sep-03-14	-27	5 d w/ Holiday																																																												
TUN-11-6210	Cross Passage 5 - Construct Final Liner (Sump)	5	Sep-04-14	Sep-10-14	-27	5 d w/ Holiday																																																												
TUN-11-6240	Cross Passage 5 - Construct Final Liner (Invert)	5	Sep-11-14	Sep-17-14	-27	5 d w/ Holiday																																																												
TUN-11-6250	Cross Passage 5 - Construct Final Liner (Arch)	15	Sep-18-14	Oct-08-14	-27	5 d w/ Holiday																																																												
TUN-11-6220	Cross Passage 5 - Install Misc Metals	1	Oct-09-14	Oct-09-14	-27	5 d w/ Holiday																																																												
TUN-11-6230	Cross Passage 5 Complete	0		Oct-09-14	-27	5 d w/ Holiday																																																												
Portal Structure		194	Oct-10-14	May-21-15	-36																																																													
TUN-12-1000	Portal Structure - Setup Traffic Control for Portal Structure (West)	1	Oct-10-14	Oct-10-14	-32	6 d w/ Holiday																																																												
TUN-12-1010	Portal Structure - Backfill & Prep for Base Slab	6	Oct-11-14	Oct-17-14	-32	6 d w/ Holiday																																																												

█ Remaining Level of Effort
 █ Primary Baseline
 █ Remaining Work
█ Actual Level of Effort
 █ Actual Work
 █ Critical Remaining Work

Contract Number 1252

Letter No. 256

December 9th, 2013

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

Attn: Ben Campbell

Reference: Contract 1252 Central Subway Tunnels

Subject: Proposed Contract Change 016 – Retrieval Shaft 3x5 Sewer Changes

Dear Mr. Campbell:

In accordance with General Provisions Section 6.02 please see attached Proposed Contract Change for Retrieval Shaft 3x5 Sewer Changes.

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

M544.1.3.1252.0030

PROPOSED CONTRACT CHANGE

Contract No. 1252 Tunnels
 PCC No. 1252-16
 PCC Title Retrieval Shaft 3x5 Sewer Changes

Date 12/06/2013

Description of PCC:

Provide a price/credit for each of the following task items:

1. Sewer Changes Powell Street:
 - a. Slip Lining: Slip Line existing 3'x5' sewer along Powell Street with 1EA 24" HDPE pipe. This pipe is in addition to the 1EA slip lined 16" HDPE contained in Contract Modification No. 20. Pipes to be installed between Junction Structures 1 and 2 (Filbert and Union Streets, approximately 310LF).
 - b. Sprayed Mortar Lining: Short section (±15') on Powell Street south of Junction #2 (see attached drawing) to existing manhole (MH) at Powell/Union intersection to be treated with Sprayed Mortar Lining.
 - c. Junction #1 (Powell Street/Columbus Avenue): Cut and remove Section of Powell Street HDPE pipes to allow for interception of Columbus Avenue 3'x5' Brick Sewer. Contractor to install brick bulkheads on both sides on HDPE ends (per SFDPW Standard Plans).
 - d. Junction #2 (Powell/Union Streets): Insertion pit to be dug just north of existing obstruction for installation of 16" and 24" HDPE lines north along Powell Street. Junction #2 to be installed at Sprayed Mortar/Slip Lined transition point. Contractor to use standard precast MH assembly.
 - e. Slurry fill the annulus of the 24" and 16" diameter pipes on Powell Street. Provide credit for slurry not required to be installed with the additional 24" diameter HDPE pipe.
2. Sewer Changes on Columbus Avenue:
 - a. Slip Lining 79+40 to 80+41: Slip Line existing 3'x5' sewer on Columbus Avenue with 1EA 24" and 1EA 16" HDPE pipes (approximately 100LF).
 - b. Slip Lining 80+41 to 81+50: Slip Line existing 3'x5' sewer on Columbus Avenue with 1EA 16" HDPE pipes (approximately 109LF). This pipe is in addition to the 1EA slip lined 24" HDPE contained in Contract Modification No. 20.
 - c. Slip Lining 83+85 to 85+50: Slip Line existing 3'x5' sewer on Columbus Avenue with 1EA 24" HDPE pipe.
 - d. Slurry fill the annulus of the 24" and 16" diameter pipes on Columbus Avenue. Provide for the slurry fill from station 79+40 to 80+41 and 83+85 to 85+50. Provide credit for slurry fill 80+41 to 81+50 for slurry not required to be installed with the additional 16" diameter HDPE pipe.
3. Sewer Changes on Union Street:
 - a. Sprayed Mortar Lining: Install Sprayed Mortar Lining in existing 3'x5' sewer along Union Street from existing MH Powell intersection and existing MH east of Junction #3 (approx. STA 81+90-273' as indicated on DWG ES-164 Rev. No. 1). Contractor's proposal shall contain credit for eliminated slip lining work on Union Street.

- b. Junction #3 (Union Street/Columbus Avenue): Provide price to install brick bulkheads on both sides on HDPE ends (per SFDPW Standard Plans) on Columbus Avenue lines. Contractor to install MH at intersection of Union Street and Columbus Avenue. MH to be field located with PUC to avoid interference with MUNI OCS.
- 4. Modifications to sewer lateral at 577/579 Union Street (Contractor to verify address). Provide price to modify existing lateral as required to raise lateral connection elevation above invert.
- 5. Additional lateral discovered during site investigation: Provide price for installing an additional lateral at 555 Union Street (Contractor to verify address). Lateral not shown on Contract Drawings.
- 6. Mitigation of debris/grease buildup: The SFMTA has been notified (in BIH Letter No. 187), that there is an accumulation of debris and grease in the Union and Powell Street sewer lines. Provide a price to remove the grease and debris sufficiently to allow the Contract to perform their work.

Note: All station numbers and dimensions contained herein are approximate. Contractor to use actual stationing/dimensions for pricing purposes.

Spec Ref. CN 1252 Tunnels, 33 11 20

Drawing Nos. SW-3 Rev. No. 1

Attachments Field Sketch FS 1252-075

The Contractor's proposal in price and time is required on the this proposed contract change to the subject contract in accordance with the General Provisions Section 6.02 B, within 14 days after receipt of a PCC.

Recommended by:


 Sarah Wilson, Resident Engineer (SFMTA Representative)

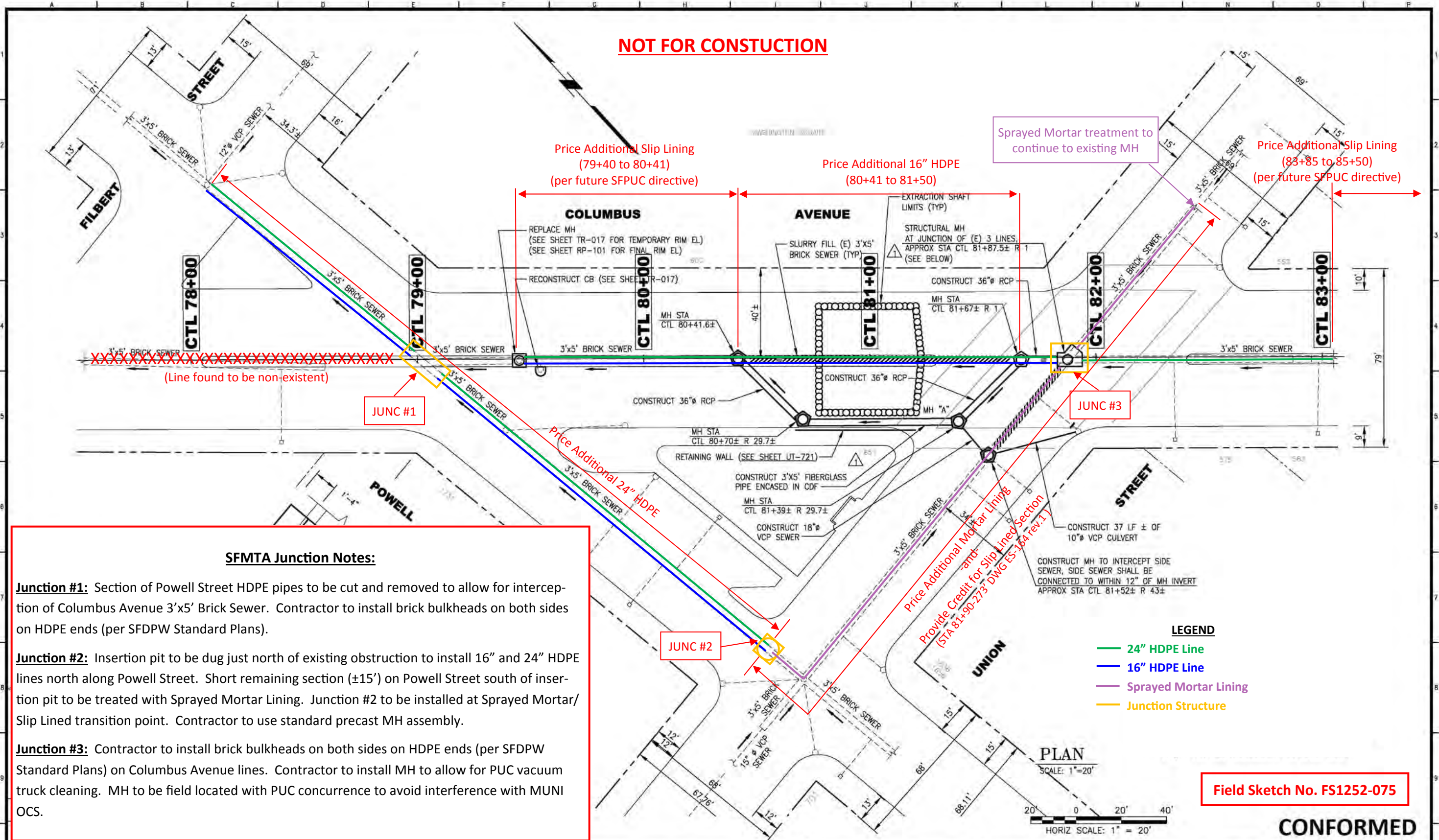
Date 12/6/13

Concur in Principle:


 Mark Benson, Construction Manager (SFMTA Representative)

Date 12/6/13

NOT FOR CONSTRUCTION



SFMTA Junction Notes:

Junction #1: Section of Powell Street HDPE pipes to be cut and removed to allow for interception of Columbus Avenue 3'x5' Brick Sewer. Contractor to install brick bulkheads on both sides on HDPE ends (per SFDPW Standard Plans).

Junction #2: Insertion pit to be dug just north of existing obstruction to install 16\"/>

Junction #3: Contractor to install brick bulkheads on both sides on HDPE ends (per SFDPW Standard Plans) on Columbus Avenue lines. Contractor to install MH to allow for PUC vacuum truck cleaning. MH to be field located with PUC concurrence to avoid interference with MUNI OCS.

- LEGEND**
- 24\"/>
 - 16\"/>
 - Sprayed Mortar Lining
 - Junction Structure

Field Sketch No. FS1252-075

CONFORMED

NO.	DATE	DESCRIPTION	BY	APP.
1	05/05/11	ADDENDUM #5 RETAINING WALL & MH STRUCTURE	KD	LW
0	01/21/11	ISSUED FOR BIDS	KD	LW

TABLE OF REVISIONS
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION

REFERENCE INFORMATION & FILE NO. OF SURVEYS
BK-005b_PG-033
BK-005b_PG-040
BK-010B_PG-012
BK-010B_PG-019



BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF SAN FRANCISCO



DESIGNED:	DATE:	APPROVED:	DATE:
K.DAY	02/2011	I.Dhapa	2/14/11
DRAWN:	DATE:	SECTION MANAGER:	DATE:
V.CHEUNG	02/2011	N.Chan	2/15/11
CHECKED:	DATE:	DEPUTY MANAGER:	DATE:
L.WONG	02/2011	N.Chan for	2/15/11
		BUREAU MANAGER:	DATE:

SCALE:
AS NOTED
SHEET OF SHEETS

THIRD STREET LIGHT RAIL PROGRAM
PHASE 2 - CENTRAL SUBWAY
TUNNELS
SEWER WORK - COLUMBUS AVENUE
FILBERT STREET TO UNION STREET
PLAN

CONTRACT NO.	1252
DRAWING NO.	SW-3
FILE NO.	91.617
REV. NO.	1

Contract Number 1252

Letter No. 258

December 10th, 2013

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

Attn: Ben Campbell

Reference: Contract 1252 Central Subway Tunnels

Subject: Proposed Contract Change 017 – Green St. Sewer Changes

Dear Mr. Campbell,

In accordance with General Provisions Section 6.02 please see attached Proposed Contract Change for Retrieval Shaft 3x5 Sewer Changes.

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

M544.1.3.1252.0030

PROPOSED CONTRACT CHANGE

Contract No. 1252 Tunnels Date 12/10/2013
 PCC No. 1252-17
 PCC Title Green Street Sewer Changes

Description of PCC:

Provide a price/credit for each of the following task items:

1. Elimination of Slip Lining: Provide credit for elimination of 286LF of 16" and 24" base Contract slip lining. Stationing of eliminated slip lining is shown on attached drawing.
2. Elimination of Insertion Pits: Provide credit for elimination of 2EA base Contract slip lining insertion pits. Location of eliminated insertion pits is shown on attached drawing.
3. Sprayed Mortar Lining: Provide price for applying Sprayed Mortar Lining on approximately 302LF of existing 3'x5' sewer lines, indicated on attached drawing. Sprayed Mortar Lining shall be from existing manhole (MH) to existing MH.
4. Slip Lining: Provide price for slip lining existing 3'x5' sewer with 16" and 24" HDPE pipes along approximately 165LF of line. Slip Lining to be on Columbus Street sewer from 83+50 to 85+50. Price shall include grouting of the annular space between the pipes and the 3'x5' sewer.
5. Sprayed Mortar Lining: Provide price for applying Sprayed Mortar Lining on approximately 44LF of sewer line from existing MH on Green Street to existing MH on intersection of Columbus Avenue and Green Street.

Note: All station numbers and dimensions contained herein are approximate. Contractor to use actual stationing/dimensions for pricing purposes.

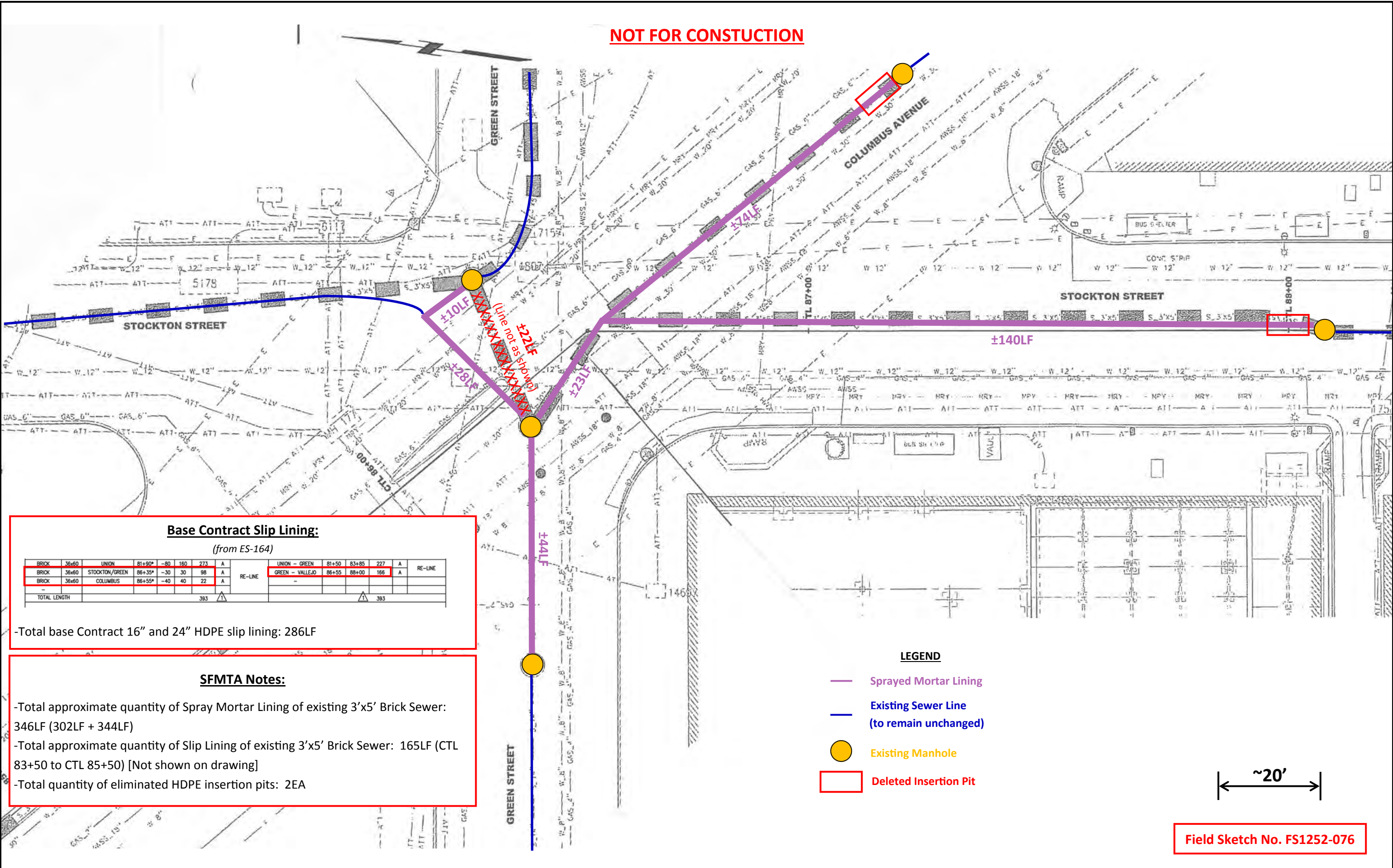
Spec Ref.	CN 1252 Tunnels, 33 11 20
Drawing Nos.	ES-103 Rev. No. 1 and ES-104 Rev. No. 1
Attachments	Field Sketch FS 1252-076

The Contractor's proposal in price and time is required on the this proposed contract change to the subject contract in accordance with the General Provisions Section 6.02 B, within 14 days after receipt of a PCC.

Recommended by:  Date 12/10/13
 Sarah Wilson, Resident Engineer (SFMTA Representative)

Concur in Principle:  Date 12/10/13
 Mark Benson, Construction Manager (SFMTA Representative)

NOT FOR CONSTRUCTION



Base Contract Slip Lining:

(from ES-164)

BRICK	36x60	UNION	81+90*	-80	160	273	A		UNION - GREEN	81+50	83+85	227	A	RE-LINE	
BRICK	36x60	STOCKTON/GREEN	86+35*	-30	30	98	A		GREEN - VALLEJO	86+55	88+00	166	A	RE-LINE	
BRICK	36x60	COLUMBUS	86+55*	-40	40	22	A								
TOTAL LENGTH			393									393			

-Total base Contract 16" and 24" HDPE slip lining: 286LF

SFMTA Notes:

-Total approximate quantity of Spray Mortar Lining of existing 3'x5' Brick Sewer: 346LF (302LF + 344LF)

-Total approximate quantity of Slip Lining of existing 3'x5' Brick Sewer: 165LF (CTL 83+50 to CTL 85+50) [Not shown on drawing]

-Total quantity of eliminated HDPE insertion pits: 2EA

LEGEND

- Sprayed Mortar Lining
- Existing Sewer Line (to remain unchanged)
- Existing Manhole
- Deleted Insertion Pit

~20'

Field Sketch No. FS1252-076

Contract Number 1252 Letter No. 255

December 10, 2013

American Public Transportation Association
1666 K St. NW
Washington, DC 20006-1215

Attn: Martin Schroeder, PE
Chief Technology Officer
Peer Review Facilitator

Reference: Contract 1252 Central Subway
Tunnels

Subject: BART Bolt Load Cells Action Plan

Dear Mr. Schroeder:

In response to a request by the Independent Review Panel during a conference call on December 5, 2013, this letter outlines a plan for continued use of the Omegadyne LC-901 bolt load cells that were installed in the BART tunnels.

Twelve load cells were installed on bolts in the BART M1 and M2 tunnels to monitor BART tunnel lining bolt loads during construction of the Central Subway tunnels at the ring locations shown in attached Figure 1.

Following installation of the load cells on October 27, 2013, Load Cells M2-51A and M2-75A began reporting erratic load readings and were deemed to be damaged. They were replaced on November 19, 2013, prior to the excavation of the Southbound Central Subway Tunnel under the BART tunnels.

Load Cell M1-75A is reporting loads far below the original 28 k preload and with more daily variability than any of the other load cells. The bolt holes through the lining flanges at this location were discovered to be rough and uneven after the load cell was installed, which is now attributed by the contractor as a possible cause of the erratic load readings. We do not recommend reinstalling a load cell at this location.

Load Cells M1-75A and M2-75A are providing erratic data inconsistent with project expectations and presently are considered to be unreliable. On November 25, 2013, it was agreed by BART, the SFMTA, and the IRP to proceed with the Southbound undercrossing with ten of the 12 originally installed load cells.

Load Cell M1-51A has been providing data consistent with project expectations, despite the observance of periodic water drips.

Load cell manufacturer Omegadyne describes the load cells as "all stainless steel construction... delivers high reliability in severe industrial environments." In response to recent inquiries about the load cell failures, Omegadyne informed BIH that the LC-901 load cells

installed for this project are not hermetically sealed and therefore could be prone to damage if exposed to continuous water moisture, as observed in the crown of the BART tunnels during installation of the load cells in the eastern portion of both tunnels (Ring 51 and Ring 75). Omegadyne is unable to recommend a method for drying out the load cells that are exposed to water or to further protect load cells that operate in wet conditions but also providing active and reliable data.

During the excavation of the Southbound Central Subway Tunnel under the BART tunnels between November 26 and November 30, 2013, the ten load cells being relied upon for data (all but M1-75A and M2-75A) provided consistent readings displaying no more than approximately 0.2 kips of load change. BART, the SFMTA, and the IRP were satisfied with the available load data. The bolt load data indicate that the deformations induced by the excavation of the Southbound tunnel did not alter the pre-existing bolt loads. Attached please find Figure 2 showing the load cell baseline values and the actual loads experienced during the Southbound undercrossing.

Based on the data provided by the ten active and reliable load cells and consideration of the potential risk of damaging the remaining load cells by tampering with them, and that load cells are considered tertiary level instrumentation, the project recommends proceeding with the excavation of the Northbound Central Subway Tunnel under the BART tunnels using the currently installed load cells. The project also recommends that observed leakage at load cell locations be reviewed 3 months after the Northbound tunnel undercrossing and that the bolt resealing plan be recommended at that time.

Sincerely,



John Funghi
Program Director

Cc: Albert Hoe, SFMTA
Jane Wang, SFMTA
Mark Benson, SFMTA
Richard Redmond, SFMTA
Sarah Wilson, SFMTA
Pepe Vallenias, BART
Chung-Soo Doo, BART
Alessandro Tricamo, BIHJV

M544.1.3.1252.0030

CENTRAL SUBWAY PROJECT
Project Trend/Change Control Log

Trend Log

Contract Cost Estimate and Allocated Contingencies										
Item #	Date Initiated	CMB No.	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number
						Approval Action	Approval Date			
Contract 1250 - Utilities Relocation #1 (Portal & MOS)										
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.] COMPLETE, NO FURTHER ACTION; CMOD #1	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	Differing conditions as AWSS is directly over existing sewer; unable to install sewer manhole per plan. [In "Current Forecast" - Sep2010 Cost Report.] No reimbursement from SFPUC Sewer. COR #2-\$34,135; COR #5-\$73,039 COMPLETE, NO FURTHER ACTION; CMOD #2	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.] COMPLETE, NO FURTHER ACTION; CMOD #3	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 COMPLETE, NO FURTHER ACTION; CMOD #4	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 COMPLETE, NO FURTHER ACTION; CMOD #5	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 COMPLETE, NO FURTHER ACTION; CMOD #6	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. COMPLETE, NO FURTHER ACTION; CMOD #9	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 COMPLETE, NO FURTHER ACTION; CMOD #8	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 COMPLETE, NO FURTHER ACTION; CMOD #7	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. COMPLETE, NO FURTHER ACTION; CMOD #10	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) COMPLETE, NO FURTHER ACTION; CMOD #16	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 COMPLETE, NO FURTHER ACTION; CMOD #20	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 COMPLETE, NO FURTHER ACTION; CMOD #20	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) COMPLETE, NO FURTHER ACTION; CMOD #16	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 COMPLETE, NO FURTHER ACTION; CMOD #20	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 COMPLETE, NO FURTHER ACTION; CMOD #12	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. Work was not performed and will need to be addressed in a future contract.	
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. Work was not performed and will need to be addressed in a future contract.	
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. This trend has been superseded by Trend #37. COMPLETE, NO FURTHER ACTION	
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. 2501 and 147. No reimbursement from SFPUC Sewer. COMPLETE, NO FURTHER ACTION; CMOD #11	CMOD #11 Approved
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. Trend No. 21 is combined with Trend No. 22.	

- 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		
1250-0022	10/06/10	081-0022	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. No reimbursement from SFPUC AWSS. COMPLETE, NO FURTHER ACTION; CMOD #15	CMOD #15 Approved
1250-0023	10/06/10	081-0023	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. COMPLETE, NO FURTHER ACTION; CMOD #13	CMOD #13 Approved
1250-0024	10/06/10	081-0024	6	CMB-0048	Agree	08/24/11	+95,311	Contract specs specified AT&T to compensate contractor directly for workaroud & support. AT&T refused to pay Synergy. Synergy considers AT&T's refusal as a changed condition to CN 1250 contract. (\$95,311) Reimbursement from AT&T. See Final 1250 Form B actual costs. COMPLETE, NO FURTHER ACTION; CMOD #19	CMOD #19 Approved
1250-0025	10/06/10	081-0025	6					Contract specs specified PG&E to compensate contractor directly for workaroud & support. PG&E negotiated \$100,000 directly with Synergy and will pay synergy directly as well.	
1250-0026	10/06/10	081-0026	3	CMB-0028	Agree	02/09/11	+66,510	Total cost known to date (10/5/10) of all SFWD support and workaroud. 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. No reimbursement from SFWD. COMPLETE, NO FURTHER ACTION; CMOD #14	CMOD #20 Approved
1250-0027	10/06/10	081-0027	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. Additional charges are expected which will be tracked as Trend No. 28. COMPLETE, NO FURTHER ACTION	CMOD #20 Approved
1250-0028	12/08/10	081-0028	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. COMPLETE, NO FURTHER ACTION	CMOD #14 Approved
1250-0029	12/08/10	081-0029	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. COMPLETE, NO FURTHER ACTION; CMOD #17	CMOD #17 Approved
1250-0030	12/08/10	081-0030	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. COMPLETE, NO FURTHER ACTION; CMOD #16	CMOD #16 Approved
1250-0031	12/08/10	081-0031	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. Credit amount included in Trend #43	
1250-0032	12/08/10	081-0032	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. Credit amount included in Trend #43	

- 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
1250-0033	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. Credit amount included in Trend #43	
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. COMPLETE, NO FURTHER ACTION; CMOD #18	CMOD #18 Approved
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. COR Not submitted by Contractor CLOSED COMPLETE, NO FURTHER ACTION	
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. 2/15: Rental/Maintenance Costs for Support (Part 2 of 4); Add Work as Result of Archeological Shutdown (3 of 4). 07/25: 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. 09/12: RE to Prepare Modification 10/29: 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. COMPLETE, NO FURTHER ACTION	CMOD #20 Approved
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. COMPLETE, NO FURTHER ACTION	
1250-0038	03/18/11	081-0038	Project Delay due to archaeological discovery and PG&E Issues.	2				-0	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. This will be carried in the Potential Claim Log.	
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. NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)	N/A

- 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
1250-0040	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. NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)	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. NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)	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. NO FURTHER ACTION; Superseded by COR #58. (See 1250-0043 below)	N/A
1250-9001	10/06/10	081-9001	Utility Companies refusal to contribute to utility support costs and work-around. (Voided. Recorded individually in TR-0059-TR-0061.)	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%. COMPLETE, NO FURTHER ACTION; CMOD #20	CMOD #20 Approved
Contract 1250 Totals								+2,694,211	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. 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. 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	
Contract 1251 - Utilities Relocation #2 (UMS)										
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 COMPLETE, NO FURTHER ACTION; CMOD #4	CMOD #4 Approved
1251-0002	03/18/11	082-0002	Installation of reinforced concrete slab underneath Joint Trench along Stockton at O'Farrell (East Side). CTL 133+66.37 (27.08 LEFT) to CTL 134+00.87 (27.08 LEFT)	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 COMPLETE, NO FURTHER ACTION; CMOD #2	CMOD #2 Approved
1251-0003	03/18/11	082-0003	Adjust placement of 3EA manholes along Geary Street and O'Farrell Street. The modified manhole locations require the installation of approximately 265LF of additional HDPE pipe inside the existing 3'x5' brick sewer.	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 COMPLETE, NO FURTHER ACTION; CMOD #1	CMOD #1 Approved
1251-0004	04/06/11	082-0004	Changes to Neiman Marcus secondary enclosure wall due to various differing site conditions.	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 COMPLETE, NO FURTHER ACTION; CMOD #3	CMOD #3 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
1251-0005	04/06/11	082-0005	Existing PG&E conduits were found on top and parallel to existing AWSS on Geary Blvd. at 2 locations (east and west of Stockton)	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 COMPLETE, NO FURTHER ACTION	CMOD #24 Approved
1251-0006	04/20/11	082-0006	Design changes to utilities on Stockton street between Post and Geary	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 COMPLETE, NO FURTHER ACTION; CMOD #5	CMOD #5 Approved
1251-0007	04/20/11	082-0007	Design changes to utilities on Ellis Street	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 COMPLETE, NO FURTHER ACTION; CMOD #5	CMOD #5 Approved
1251-0008	04/20/11	082-0008	Elimination of underpinning at 150 Stockton	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. CLOSED, NO FURTHER ACTION	
1251-0009	04/20/11	082-0009	Additional cost for police officers and/or Parking Control Officers for traffic control.	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. COMPLETE, NO FURTHER ACTION; CMOD #4	CMOD #4 Approved
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 COMPLETE, NO FURTHER ACTION; CMOD #3	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 CLOSED, NO FURTHER ACTION: Per direction from CMB on January 18, 2012, this request is denied.	
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 COMPLETE, NO FURTHER ACTION; CMOD #6	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) COMPLETE, NO FURTHER ACTION; CMOD #3 (No Cost Change)	CMOD #3 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
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 this 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. 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. COMPLETE, NO FURTHER ACTION; CMOD #9	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 COMPLETE, NO FURTHER ACTION; CMOD #8	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 COMPLETE, NO FURTHER ACTION; CMOD #8	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. AT&T agreed to reimburse SFMTA (\$25,000) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #7	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. AT&T agreed to reimburse SFMTA (\$31,000) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #7	CMOD #7 Approved
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. This additional work for AT&T will need to be reimbursed to SFMTA through the Form B process. 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) COR #43 COMPLETE, NO FURTHER ACTION; CMOD #11	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. PG&E agreed to reimburse SFMTA (\$19,537) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #21	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. CLOSED; NO FURTHER ACTION. Cost for this trend is captured in Trend #31/CMod #12	
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. CLOSED; NO FURTHER ACTION. Applicable bid items to be adjusted accordingly, See Trend #60.	

- 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
1251-0023	09/07/11	082-0023	4th Street & Folsom Trolley Bypass	1	CMB-0065	Agree	1/25/2012, 2/29/12	+405,440	SFMTA Operations has requested a bypass be installed at 4th Street and Folsom Street. \$242,619 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 Updated projected cost impact from \$490,000 to \$405,440. CMod #12 (Formerly CMod #15) COMPLETE, NO FURTHER ACTION; CMOD #12	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. PG&E agreed to reimburse SFMTA (\$201,410) through the Form B process. COR #58 COMPLETE, NO FURTHER ACTION; CMOD #19	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. CLOSED; NO FURTHER ACTION. Item is captured under applicable JT Bid Item, See Trend 60.	
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. CLOSED; NO FURTHER ACTION. Item is captured under applicable OCS Bid Item, See Trend 60.	
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 COMPLETE, NO FURTHER ACTION; CMOD #10	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. AT&T agreed to reimburse SFMTA (\$157,000) through the Form B process. COR #43 COMPLETE, NO FURTHER ACTION; CMOD #11	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 CLOSED; NO FURTHER ACTION. Demo of existing vaults 403 and 113 are superseded by Trend 43. (See CMOD #23)	
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. PG&E agreed to reimburse SFMTA (\$46,366) through the Form B process. CMB approved a NTE amount of \$40K COMPLETE, NO FURTHER ACTION; CMOD #21	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. PG&E agreed to reimburse SFMTA (\$17,193) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #21	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. PG&E agreed to reimburse SFMTA (\$92,292) through the Form B process. 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. COMPLETE, NO FURTHER ACTION; CMOD #19	CMOD #19 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		
1251-0033	11/23/11	082-0033	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 COMPLETE, NO FURTHER ACTION; CMOD #13 (formally CMOD #14)	CMOD #13 Approved
1251-0034	01/10/12	082-0034	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 COMPLETE, NO FURTHER ACTION; CMOD #17	CMOD #17 Approved
1251-0035	01/11/12	082-0035	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 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.	
1251-0036	01/11/12	082-0036	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 CLOSED; NO FURTHER ACTION. Based on field meeting with BIH on 1/17/12; this work will be completed under CN 1252 as planned.	
1251-0037	01/17/12	082-0037	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) COMPLETE, NO FURTHER ACTION; CMOD #18	CMOD #18 Approved
1251-0038	01/04/12	082-0038	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. COMPLETE, NO FURTHER ACTION; CMOD #22	CMod #22 Approved
1251-0039	01/17/12	082-0039	1				+4,752	Requested by Muni Operation. COMPLETE, NO FURTHER ACTION; CMOD #22	CMod #22 Approved
1251-0040	02/15/12	082-0040	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. COMPLETE, NO FURTHER ACTION; CMOD #14	CMOD #14 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		
1251-0041	02/15/12	082-0041	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. COMPLETE, NO FURTHER ACTION; CMOD #14	CMOD #14 Approved
1251-0042	02/15/12	082-0042	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. COMPLETE, NO FURTHER ACTION; CMOD #14	CMOD #14 Approved
1251-0043	02/15/12	082-0043	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) COMPLETE, NO FURTHER ACTION; CMOD #23	CMOD #23 Approved
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. COMPLETE, NO FURTHER ACTION; CMOD #18	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) COMPLETE, NO FURTHER ACTION; CMOD #18	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 engaged in order to capture the two (2) ductbanks. PG&E agreed to reimburse SFMTA (\$80,000) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #24	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) COMPLETE, NO FURTHER ACTION; CMOD #26	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 RE Denied COR (City Letter 26); however Contractor will most likely send rebuttal. CLOSED; NO FURTHER ACTION.	
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) COMPLETE, NO FURTHER ACTION	CMOD #27 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			
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) COMPLETE, NO FURTHER ACTION; CMOD #20	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 PG&E agreed to reimburse SFMTA (\$23,633) through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 Approved
1251-0052	04/10/12	082-0052	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. COMPLETE, NO FURTHER ACTION; CMOD #28	CMOD #28 Approved
1251-0053	04/10/12	082-0053	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) COMPLETE, NO FURTHER ACTION; CMOD #27	CMOD #27 Approved
1251-0054	04/17/12	082-0054	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 COMPLETE, NO FURTHER ACTION; CMOD #22	CMOD #22 Approved
1251-0055	04/17/12	082-0055	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. COMPLETE, NO FURTHER ACTION;	
1251-0056	05/31/12	082-0056	2				+45,156	Additional work due to unforeseen and differing conditions during installation of sewer. COMPLETE, NO FURTHER ACTION; CMOD #15	CMOD #15 Approved
1251-0057	05/31/12	082-0057	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. COMPLETE, NO FURTHER ACTION; CMOD #16	CMOD #16 Approved
1251-0058	05/31/12	082-0058	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) COMPLETE, NO FURTHER ACTION; CMOD #25	CMOD #25 Approved
1251-0059	06/26/12	082-0059	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) COMPLETE, NO FURTHER ACTION; CMOD #27	CMOD #27 Approved
1251-0060	06/26/12	082-0060	4				(508,961)	Bid item analysis for entire contract as of 6/12/12.	CMOD #30 Approved
1251-0061	06/26/12	082-0061	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. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 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
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 COMPLETE, NO FURTHER ACTION; CMOD #22	CMOD #22 Approved
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. COMPLETE, NO FURTHER ACTION; CMOD #24	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) COMPLETE, NO FURTHER ACTION; CMod #27	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. COMPLETE, NO FURTHER ACTION; CMOD #28	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. COMPLETE, NO FURTHER ACTION; CMOD #24	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) COMPLETE, NO FURTHER ACTION; CMOD #20	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. COMPLETE, NO FURTHER ACTION; CMOD #24	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. COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 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			
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) COMPLETE, NO FURTHER ACTION; CMOD #28	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. CLOSED; NO FURTHER ACTION.	
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. RE Tracking work on FAR 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) COMPLETE, NO FURTHER ACTION; CMOD #14	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. COMPLETE, NO FURTHER ACTION; CMOD #22	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. RE Tracking work on FAR (CMB 0074 approval - see Trend CN1251 #'s 50, 67, & 75 also). COMPLETE, NO FURTHER ACTION; CMOD #20	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. RE Tracking work on FAR (CMB 0082 approval - see Trend CN1251#'s 47, 58 & 78) COMPLETE, NO FURTHER ACTION; CMOD #20	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. RE Tracking work on FAR (CMB 0082 approval - see Trend CN1251#'s 47, 58 & 78) COMPLETE, NO FURTHER ACTION; CMOD #26	CMOD #26 Approved
1251-0077	09/12/12	082-0077	Additional work related to Qwest, TCG and UCCO facilities	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. RE Tracking work on FAR CMB agreement contingent upon CMod package to include evidence from all utilities that cost are reimbursable to SFMTA through the Form B process. COMPLETE, NO FURTHER ACTION; CMOD #25	CMOD #25 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	
1251-0078	09/12/12	082-0078	Unforeseen conditions encountered during excavation and installation of OCS poles along Mason and 5th Streets.	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 Street. RE Tracking work on FAR (CMB 0082 approval - see Trend CN1251 #'s 47, 58 & 76) COMPLETE, NO FURTHER ACTION; CMOD #26	CMOD #26 Approved	
1251-0079	09/12/12	082-0079	Additional work related to installation of PG&E Vaults 467, 571, 573, 586 and 594 including joint trench leading to these vaults	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. RE Tracking work on FAR COMPLETE, NO FURTHER ACTION; CMOD #24	CMOD #24 Approved	
1251-0080	09/12/12	082-0080	Additional work related to installation of AT&T Vaults 5828, 5829, 5830, 5831, 5832 and 5833 including joint trench leading to these vaults	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) COMPLETE, NO FURTHER ACTION; CMOD #23	CMOD #23 Approved	
1251-0081	09/13/12	082-0081	PG&E concrete cover versus CDF on electrical duct bank	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. COMPLETE, NO FURTHER ACTION	CMOD #24 Approved	
Contract 1251 Totals								+3,962,032	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. Changes that will be Utility Reimbursement credits through the Form B process in the amount of \$1,224,828 will increase the UNDERRUN. 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		
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	

- 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			
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	+5,727	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.	
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

- 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		
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	+43,219	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
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

- 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			
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				-0-	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				-0-	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				-0-	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.	
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				+144,000	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	

- 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			
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				+400,000	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.	
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 1	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

- 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			
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-0136	Agree to Merit Agree to Cost	11/28/2012 11/06/13	+121,917	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 Cost	11/06/13	+112,862	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	
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	

- 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		
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 11/16/13	+126,489	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	+88,677	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.	
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

- 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			
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				-0-	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 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 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 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	
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

- 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		
1252-0068	10/10/12		PCC 3 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	
1252-0069	11/08/12		PCC 6 PCC No. 6 - Supplemental instrumentation of BART tunnel lining.	1	CMB-0124 (voided) CMB-0129 (voided) CMB 0131	Agree to Merit Agree to Cost Agree to Cost	10/13/12 07/10/13 08/07/13 08/09/13	+307,861	Implement additional instrumentation of BART tunnel lining: (A) Existing bolt preload force – Determine the actual load in 12 bolts. (B) Bolt force sensor – Install 12 bolt force sensors at bolts for a total of 24 bolts. (C) Rail movement under dynamic train loading – Install dynamic strain gauges (2 per rail, 8 per tunnel). 10/31/12 - PCC presented to CMB for merit. CMB directed RE to proceed with obtaining a price quote from Contractor to perform the work. 05/08/13 - PCC 06 cost comparison was presented. CMB felt \$624K to perform the work was too high and requested IRP be contacted in writing to find out if the additional instrumentation monitoring was still warranted given the new alignment. 06/05: CS Letter No. 1972 presented - Tunnel Design Changes sent to IRP notified them of recent changes and developments in the tunneling contract. 07/10/13 - CMB - Not to Exceed \$650,127.62 IRP's response to SFMTA letter is still pending. 08/07/13 - CEE brought to CMB for cost NOT TO EXCEED amount \$305K contingent upon revised estimate to reflect deletion in scope of work. 08/09/13 - Special CMB Mtg to clarify direction and approval to proceed with direction to the Contractor on extra work contained in PCC 06 (BART Work Scope reduction) The CMB Agreed to a NTE revised value of \$307,860 - Agreed COMPLETE; NO FURTHER ACTION: CMOD #19	CMOD #19 Approved
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	+116,663	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	
1252-0074	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	+112,313	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	

- 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		
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	+82,933	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 \$49,984 - 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 9, FA CO 1	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 10	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				-0-	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. 12/11/13 - The CMB took exception to the deletion of the (\$1.3M) from the log without the consent of the Board. Direction was given to re-insert the credit and add a notation to the "comments section" the reasoning the dollar amount is no longer valid and should be removed.	
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.	

- 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		
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				+45,715	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	

- 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			
1252-0089	03/11/13	75	Hazardous Waste Disposal Denial - Spoils Containment Cost Impacts	7				-0-	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 - 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 CMB 142	Agree to Merit Agree to Merit (addl) Agree to Cost Agree to Addl Cost	03/20/13 04/24/13 04/26/13 11/06/13	+259,372	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 demolish and remove 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. 11/06/13 - EE brought to CMB for cost NOT TO EXCEED \$37,380 for the (remaining cost) parts 2 and 3 of 4 - Agreed	
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.	

- 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			
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				+103,107	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.	

- 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			
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.	
1252-0102	04/09/13		UMS - Secant Pile SRV-J Obstruction DSC	2				-0-	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 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				-0-	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. 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 - 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.	

- 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	CMB No.	Change Description	Change Type	CMB No.	Change Status		Projected Cost Impact +Exposure/(Benefit)	Comments	Contract Modification Number
						Approval Action	Approval Date			
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.	
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.	
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 Microplie 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				+222,022	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	

- 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			
1252-0116	08/08/13	99	MOS – AWSS Vault Over pour @ South Headwall)	2	CMB 0134	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	
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	
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, " Slip lining 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, slip lining 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 slip lining runs at the Retrieval Shaft, see Attachment Nos. 2, 4 and 6. The SFMTA responded, via RFI No. 275.2, stating that the slip lining 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 slip lining 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	Notificaton - 9/17/13, PCC - 12/11/13		PCC 17 Green Street Sewer Changes	2		Agree to Merit	9/25/2013	TBD	In preparation to beginning slip lining 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. Received email from DPW on Oct 18 regarding proposed new direction to spray mortar sewer line in lieu of slip lining. DPW also requested additional slip lining on Columbus from Sta. 83+50 to Sta. 85+50. 09/25/13 - DSC presented for merit approval - Agreed. CMB directed the CM Team to ask the Contractor for recommendation to slip line as much of the sewer line as possible without rerouting the conflicting pipe lines.	

- 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			
1252-0125	10/24/13		PCC 14 Modifications to AWSS Facilities at 4th and Bryant Streets	1				+33,749	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.	
1252-0126	10/14/13		Ellis shaft and Old Navy Grouting	2				+500,000	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 the COR.	
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. 11/06/13 - Item reviewed at CMB during review of weekly Trend/Change log.	
1252-0129	10/30/13		0 UMPs on 96-inch Sewer	2				TBD	BIHJV's subcontractor Wang Technology claims to have encountered a DSC (brick structure) while drilling for utility monitoring points on Howard Street. 11/06/13 - Item reviewed at CMB during review of weekly Trend/Change log.	
1252-0130	Notification - 11/8/13, PCC - 12/9/13		PCC 16 Ret Shaft Sewer Changes	2				TBD	BIHJV's subcontractor Synergy Project Management claims to have encountered the following DSCs while performing an investigation into planned slip lining work at the intersection of Columbus/Union/Powell: Internal clearance issues, unforeseen lateral connections, mixed debris and grease buildup inside sewer, and tighter radius than was anticipated for the planned junction structure. 11/20/13 - Item reviewed at CMB during review of weekly Trend/Change log. The Board suggested the CM Team ask the PUC to tell us what they would like the Contractor to do.	
1252-0131	11/13/13		FA CO 9 Obstruction hit at CSM panel W6	2	CMB 0146	Agree to Merit Agree to Cost	12/11/13	+7,829	BIHJV's subcontractor Drill Tech claims to have encountered a DSC (unknown steel members) while performing Cutter Soil Mixing (CSM) on panel W6 at the Retrieval Shaft. 11/20/13 - Item reviewed at CMB during review of weekly Trend/Change log. This item will be tracked on FA. 12/11/13 - Merit evaluation presented to CMB - Agreed. Eng. Est. presented for cost NOT TO EXCEED \$9,000 - Agreed	
1252-0132	11/12/13		0 Material Hardness at Retrieval Shaft	2				TBD	BIHJV's claims to have encountered ground material characteristics that are significantly harder than anticipated based on the information provided during the negotiations of PCC 10 (Relocation of Retrieval Shaft). 11/20/13 - Item reviewed at CMB during review of weekly Trend/Change log.	
1252-0133	PCC - 11/25/2013		PCC 15 Deleted AWSS Work at Union St and Columbus Ave	1				TBD	PCC 15 issued to: 1.) Delete all work associated with the removal and disposal of the Auxiliary Water Supply System (AWSS) utilities as shown on Contract Drawing No. AW-501.1 Rev.0. 2.) Delete all work associated with furnishing and installation of AWSS utilities as shown on Contract Drawing No. AW-501.9 Rev.0. Note: Monitoring of existing AWSS line to be performed in lieu of installation of new AWSS utilities. 12/11/13 - Item reviewed at CMB during review of weekly Trend/Change log.	

- 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				
Contract 1252 Totals							+2,501,944	Total Changes and Potential Change (trends) to the contract are currently \$2,501,944 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		
CONSTRUCTION TRENDS (Based on #1252 Trending Log and CMod) - SUBTOTALS:							+2,501,944	The \$2,501,944 represents an UNDERRUN of allocated contingency. Current Balance = (23,658,463 - 2,501,944= \$21,156,520). This does not include potential reimbursements from utilities.		
DESIGN TRENDS										
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.	

- 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			
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	
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. Project Controls estimated \$321,645.	
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. Project Controls estimated \$411,895.	
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. Project Controls estimated 733,420.	
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. 3/14/12: "Buy America" issue no longer applicable. Revised ECP element - remove H&K switch machines and replace with hydraulic/120V switch machines such as Nortrak or equal.	

- 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			
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	
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. 08/29/12: CMB agreement condition upon follow up action to evaluate procurement by CN1260	
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 with 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. 06/05/13 - CSDG designer estimate cost is not a CS expense. Add funding source will need to be established by San Francisco Planning to support the investigation study 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	
FINAL DESIGN TRENDS (Based on All ECPs) - SUBTOTALS							+4,902,000	Incorporated budget increases have been absorbed by allocated and unallocated funds and the program budget to date remains \$1,578,300,000.	
OTHER TRENDS									
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.	

- 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			
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					
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: \$1,010,000 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-	CSP request services to support 30/45 trolley reroute. \$162,600 was reduced from DPT staffing plan budget.	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. Updated from \$971,686 to include Trend 1553-0014.	BT-0203

- 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
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 and 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. 11/14/13 CMB Agreed verbally to change @ Mtg #101	
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.	
OTHER TRENDS (Based on Various Trends)								+59,662,439	Current Forecast reflects a net +3,537,933 unfavorable impact for all Other Trends.	
GRAND TOTALS								+67,066,383	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.	

PROFESSIONAL SERVICES TRENDS: 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.

Contract CS-155-1										
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 COMPLETE, NO FURTHER ACTION; Amendment #2	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 COMPLETE, NO FURTHER ACTION; Amendment #2	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 COMPLETE, NO FURTHER ACTION; Amendment #2	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 COMPLETE, NO FURTHER ACTION; Amendment #2	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. COMPLETE, NO FURTHER ACTION; Amendment #2	Amendment 2 Approved
1551-0009		071-0009	CTS Lowering	1	Authorized	12/08/11		+165,000	Amendment Signed by ED/CEO 12/8/11 COMPLETE, NO FURTHER ACTION; Amendment #3	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 COMPLETE, NO FURTHER ACTION; Amendment #4	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 COMPLETE, NO FURTHER ACTION; Amendment #4	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 COMPLETE, NO FURTHER ACTION; Amendment #4	Amendment 4 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			
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 COMPLETE, NO FURTHER ACTION; Amendment #4	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 COMPLETE, NO FURTHER ACTION; Amendment #4	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.	
Contract CS-155-1 Total								+986,882	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.	
Contract CS-155-2										
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. COMPLETE, NO FURTHER ACTION; Amendment #1	Amendment 1 Approved
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. COMPLETE, NO FURTHER ACTION; Amendment #1	Amendment 1 Approved
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 - On Hold .	
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. COMPLETE, NO FURTHER ACTION; Amendment #1	Amendment 1 Approved
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. See 1552-0006 Rev. 1 for most current estimate	
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 6/28/11 letter and cost breakdown.	

- 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			
1552-0012	08/23/11	072-0012	-		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	-				-0-	Cost charged to Task 2.70- part of base work	
1552-0014	09/22/11	072-0014	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. 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.	Option
Contract CS-155-2 Total							+1,896,708	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.	
Contract CS-155-3									
1553-0001	08/09/11	073-0001	1		Authorized	08/01/11	+259,305	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0002	08/09/11	073-0002	1		Authorized	08/01/11	+257,129	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0003	08/09/11	073-0003	1		Authorized	08/01/11	+169,553	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0004	08/09/11	073-0004	1		Authorized	08/01/11	+52,800	SFMTA letter 0933 from ED/CEO dated 8/9/11 authorizing \$738,787 in optional tasks. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0005	09/19/11	073-0005	7		Authorized	03/08/12	+38,380	Signed by Director of Transportation 3/8/2012. COMPLETE, NO FURTHER ACTION ; Amendment 2	Amendment 2 Approved
1553-0006	09/22/11	073-0006	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	7				+59,460	Letter dated 9/27/11 to DOM. NOT FOLLOWING CONTRACT REQUIREMENTS FOR PROPER NOTIFICATION OF CHANGE. PMCM has responded to clarify scope in stations and Tunnel Design. Awaiting resubmittal of request by DP3	
1553-0008	10/05/11	073-0008	7		Disagree A.12.08- Signage	11/09/11		Letter dated 10/5/11 to DOM. NOT FOLLOWING CONTRACT REQUIREMENTS FOR PROPER NOTIFICATION OF CHANGE. 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	1		Authorized	11/04/11	+33,000	SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0010		073-0010	1		Authorized	11/04/11	+108,240	SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0011		073-0011	1		Authorized	11/04/11	+81,374	SFMTA Letter 1213 from Director of Transportation dated 11/4/11 authorizing optional task. COMPLETE, NO FURTHER ACTION; OPTION	Option
1553-0012	11/09/11	073-0012	7		Authorized	01/18/12	+88,855	Contract Modification No. 1 authorized by ED/CEO on 1/18/12 COMPLETE, NO FURTHER ACTION; Amendment #1	Amendment 1 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			
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 COMPLETE, NO FURTHER ACTION; Amendment #1	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 COMPLETE, NO FURTHER ACTION; OPTION	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. Amendment #4 PENDING	Option
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 COMPLETE, NO FURTHER ACTION; Amendment #3	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 COMPLETE, NO FURTHER ACTION; Amendment #3	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 COMPLETE, NO FURTHER ACTION; OPTION	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 COMPLETE, NO FURTHER ACTION; OPTION	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 COMPLETE, NO FURTHER ACTION; OPTION	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 COMPLETE, NO FURTHER ACTION; OPTION	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 COMPLETE, NO FURTHER ACTION; OPTION	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 COMPLETE, NO FURTHER ACTION; OPTION	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 COMPLETE, NO FURTHER ACTION; OPTION	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 COMPLETE, NO FURTHER ACTION; OPTION	Option
Contract CS-155-3 Total							+2,046,831	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.	

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