


## Memorandum

CS Memorandum No. 1274

**To:** Distribution  
**From:** Susan MacKenzie, Document Control Manager   
**Date:** October 30, 2012  
**Reference:** Project No. M544.1, Contract No. CS-149  
Task No. 1-8.02, Change Control  
**Subject:** Configuration Management Board Meeting No. 97

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Attached please find minutes for Configuration Management Board Meeting No. 97 held on October 10, 2012.

Attachments: CMB Meeting No. 97 Rev. 0 Minutes with attachments

**Cc:** David Kuehn, STV (w/attachments) [david.kuehn@stvinc.com](mailto:david.kuehn@stvinc.com)  
John Funghi, SFMTA (w/attachments)  
Shahnam Farhangi, SFMTA (w/attachments)  
Roger Nguyen, SFMTA (w/attachments)  
Jane Wang, SFMTA (w/attachments)  
Carlos Campillo, CSP (w/attachments)  
Quon Chin, CSP (w/attachments)  
Chuck Morganson, HNTB/B&C (w/attachments)  
Aileen Read, CSDG (w/attachments)  
CS File No. M544.1.5.0890

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**Distribution:**

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Joon Park, SFMTA  
Albert Hoe, SFMTA  
Arthur Wong, SFMTA  
Ross Edwards, CSP  
Mark Latch, CSP  
Mark Benson, CSP  
Eric Stassevitch, CSP  
Beverly Ward, CSP  
Sarah Wilson, CSP  
Ken Barnhart, Hill International  
Michael Acosta, DPW

## CMB Meeting Minutes #97

DATE: October 11, 2012

MEETING DATE: **October 10, 2012**

LOCATION: 821 Howard St, Main Conference Room

TIME: 3:00 PM

ATTENDEES: A. Hoe (AH), J. Park (JP), A. Wong (AW), R. Edwards (RE), M. Latch (ML), M. Benson (MB), E. Stassevitch (ES), B. Ward (BW), M. Acosta (MA), K. Barnhart (KB), S. Wilson (SW), L. Zurinaga (LZ), M. Lee (ML), B. Lebovitz (BL)

COPIES TO: Attendees: S. Farhangi (SF), J. Funghi (JF), R. Nguyen (RN), Q. Chin (QC), J. Wang (JW), C. Campillo (CC), C. Morganson (CM), A. Read (AR), D. Kuehn (DK)  
File No. M544.1.5.0890

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

SUBJECT: Configuration Management Board Meeting # 97– Rev. No. 0

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

ITEM #	DISCUSSION	ACTION BY DUE DATE
1 – 07/18/12	1252 – The Construction Manager and Resident Engineer presented a proposal from BIH for a no cost change to perform the Grant Avenue Conversion between Post Street and Geary Street from One-way to Two-way Street and modify the traffic signal at Grant Avenue and Geary Street intersection. A cost proposal was also received from Department of Traffic which includes; at their request adding an additional block to the scope of work and making the conversion between Geary and Sutter. Cost proposal received from DPT was relatively close to proposal received from BIH. DPT believes they can have this work done by 7/30, which includes performing pavement marking and redo the signalization. <b>CMB agreed DPT will do the work with a “not to exceed” value of \$39K.</b> In addition the CMB requested a side by side consolidated view of the cost and the recommendation be submitted to the CMB. Also that a scope of work quote be outline to properly implement a detour using Grant St, between Geary and Sutter. The Construction Manager will put together a complete proposal package for CMB approval. <i>10/10 Status: This item was not discussed at this week’s meeting.</i>	
3- 07/25/12	1252 – M. Benson and Sarah Wilson presented MOS Traffic Signal re-route cost proposal for re-routing the traffic signal cable for review (Trend #15). This work will require a new trench to be excavated south of the south headwall limits and new conduits and traffic cables will be installed in the new trench. This cost change will give authorization to the Contractor as a “Do Not Exceed Value” of \$40K. The CMB requested the PCC look into the hourly rate/daily rate for the triton barrier also to find out what the 1.5% payroll tax item is (what are we paying for)? This COR will be brought back to the next CMB meeting as a contract modification for approval. <i>08/01:</i> The RE gave a status update to Trend #15; reporting the potential change order now may include standby time associated with this	

ITEM #	DISCUSSION	ACTION BY DUE DATE
	change. A revised CMod will be develop to include cost for potential standby time and brought back to the CMB for review. <i>10/10 Status: This item was not discussed at this week's meeting.</i>	
5- 08/08/12	1252 – R. Edwards presented a PCC for Tunnels - Reduction of UMS Headwall Concrete and Reinforcement Limits for approval of change. (See attached PCC-02). This change would reduce the cost of the headwall construction as well as facilitate the future station demolition of the headwalls. The CMB was in agreement this change needs to be done but wanted to review detailed estimate. This item will be brought to the CMB for signature approval next week. <i>08/15:</i> Agenda item was viewed however; cost estimate was not available to review. The CMB requested a complete package be brought back to next week's meeting for review and signature approval. <i>08/22:</i> A complete PCC package which included the cost estimate was reviewed, however Proposed Contract Change concurrence was not given by the Contract Administrator's representative due to lack of authority to sign contract changes. The Construction Manager will forward the complete package to Joon Park for a more thorough review followed by a recommendation to Shahnam Farhangi, SFMTA Contractor Administrator. This item will be brought to the next CMB meeting. In addition a recommendation by the Board was given to update the Proposed Contract Change (PCC) Issuance and Processing procedures " <b>Concur In Principle</b> " section (Form 1102-1) delegating signature approval to a voting member of the Configuration Management Board. <i>08/29:</i> The PCC approval concurrence was giving by the SFMTA Contractor Administrator on 08/23. A copy of the signed documentation needs to be presented to the CMB for final board approval. <i>09/12:</i> This item was not discussed at the meeting and is on hold pending the outcome of the meeting with the contractor regarding their response to PCC 1252-002 UMS Headwalls. <i>10/10 Status: This item was not discussed at this week's meeting.</i>	
3- 10/03/12	1252 – M. Benson and S. Wilson presented PCC – 03 Traffic Detour Signage (see attached) summary of changes. The CMB concurred with the proposed contract change and directed the RE to submit the documentation to the Contractor requesting a price quote to perform the work. In addition the 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. <i>10/10 Status: This item was not discussed at this week's meeting.</i>	MB 10/17/12
1-	1250 – M. Benson and M. Acosta presented CMod #21 – Adjust Contract Unit prices for Bid Items, whose final used quantities were determined to be 1) Less than 75% of the quantity shown in the schedule of bid prices and 2) Greater 125% of the quantity shown in the bid prices for consideration. The RE also presented a Contract Bid Item Analysis showing the over/under percentage and dollar amount for each bid item. The CMB disagreed with the way the Bid Item Analysis final amounts was presented, recommending the remaining bid item amount for the GE-5 allowance \$50K be exhausted - adjusting the bid item and recommending the RE do a comparison to ensure GE-5 Allowance - Differing Site Conditions are not in GE-4 Allowance - Archaeological Discoveries.	
2-	1251 – M. Benson and M. Acosta presented for approval Trend #52 – Reroute unforeseen existing waterline on discovered along Geary Street; Trend #65 – Additional fittings for AWSS lateral and chipping of pole foundation at Market/Ellis Streets; and Trend #70 Core drill primary wall and install interior plumbing at Armani and Disney for the completion of fire service water cutover work, which all relate to the water department. The reason for Trend #52 change was due to existing waterline not shown in the plan drawings, In Trend #65 existing pipe goes through the foundation and the Contractor had to add additional fittings after it was chipped away to make room for the fitting. Trend #70 The water department didn't want to connect to thin - wall steel, which made the steel susceptible to corrosion, so they had to modify the pipe needed to be installed. <b>AGREE – CMB 0079</b>	

ITEM #	DISCUSSION	ACTION BY DUE DATE
3-	1252 – M. Benson and Sarah Wilson presented COR 001 AWSS Conflict with Low Pressure Water at Harrison - Evaluation for Merit, which is in accord with CM Procedures. Existing low pressure 12" waterline line is shown on the contract drawing to be 3" north of an existing 12" AWSS "T" fitting. During excavation required for the AWSS removal and relocation it was discovered that the existing water line was actually further south than indicated on the drawings. In addition the Program's Estimating team prepared a cost estimate for review. The CMB questioned what took so long to receive notification from the Contractor? The RE responded that the reason was due to an administration hold up; being the proper "Change Order Request Form" was not given to the Contractor in a timely manner. The CMB also questioned if the dollar amount is only for the delta and not the entire work; since it is not additional work. The RE confirmed the cost estimate being analyze is only for the delta. A final cost estimate price has not been negotiated Contractor. The CMB was in agreement with the merit of the COR and concurred with the recommendation to negotiate for an amount "Not to Exceed" \$16,900. A time impact analysis relating to this work has been received under COR 008 (see attached).	
4-	1252 – M. Benson and Sarah Wilson presented COR 002 Additional AWSS restraining @ 4 <sup>th</sup> & Harrison - Evaluation for Merit. During excavation AWSS relocation at intersection of 4 <sup>th</sup> and Harrison Street Contractor uncovered a section of pipe North of the AWSS "T" fitting which was unrestrained and badly rusted. In addition the Program's Estimating team prepared a cost estimate for review. A final cost estimate price has not been negotiated with the Contractor. The CMB was agreement with the merit of the COR and concurred with the recommendation to negotiate for an amount "Not to Exceed"\$45K. A time impact analysis relating to this work has been received under COR 008 (see attached).	
5-	1252 – M. Benson and Sarah Wilson presented COR 003 AT&T Vault conflict w/ 42" RCP Sewer Main - Evaluation for Merit. Existing AT&T vault and duct bank conflicted with the installation of the 35 linear feet of 42" RCP required as show in the contract drawings. This item is reimbursable from AT&T. In addition the Program's Estimating team prepared a cost estimate for review. A final cost estimate price has not been negotiated with the Contractor. The CMB was agreement with the merit of the COR and concurred with the recommendation to negotiate for an amount "Not to Exceed" \$21,089, an amount to be reimbursed by AT&T. A time impact analysis relating to this work has been received under COR 008 (see attached).	
6-	1252 – M. Benson and Sarah Wilson presented – COR 010 MOS – Demolition PG&E Duct Bank - Evaluation for Merit. PG&E requested the demolition of concrete duct bank and manhole 1495, located just north of the north Moscone headwall to facilitate their removal of the city 911 fiber optic cables. This item has a "Not to Exceed" value of \$5K and is reimbursable by PG&E. The Engineer's cost estimate was not available for review. A final cost estimate price has not been negotiated with the Contractor. The CMB was agreement with the merit of the COR (see attached).	
7-	1252 – M. Benson and Sarah Wilson presented – COR 029 MOS – Todco Scaffolding Reimbursement - Evaluation for Merit. Utility demolition and guidewall construction for the north Moscone headwall could not commence until neighboring business Todco's scaffolding was removed. The scaffolding was not anticipated or indicated on the contract drawings and was properly submitted through SFDPW. The Engineer's cost estimate was not available for review. The final cost estimate has not been negotiated with the Contractor. The CMB was agreement with the merit of the COR the value of the change is \$1,717 (see attached).	
8-	1252 – M. Benson and Sarah Wilson presented Change Order Request No. 2; Summary Record of Negotiations - Reduction in the UMS activity durations for review (Trend #16). The Contractor provided a markup of the record of negotiations (see attached). In the	

ITEM #	DISCUSSION	ACTION BY DUE DATE
	"Conditions of Change" section the sentence will be revised by the RE to read .... <i>shall not exceed 700 psi compressive strength inside the UMS station footprint for this Contract only.</i>	

**ACTION ITEMS**

ITEM #	MTG DATE	MTG ACTION DATE	DESCRIPTION	BIC	DUE DATE	STATUS
3	10/03/12	10/03/12	1251 – Detour Signage Quote from DPT	M. Benson	10/17/12	Open

Meeting adjourned at 5:25pm

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.

Signed: BN ES [initials of preparer & reviewer] Date: 26 Oct 12 [Date review completed]

## Meeting Agenda

**Project No. M544.1, Contract No. CS-149**  
**Program/Construction Management**  
**Configuration Management Board (CMB) Meeting No. 97**

**October 10, 2012**

**3:00pm – 5:00pm**

Central Subway Project Office  
 821 Howard St. 2<sup>nd</sup> Floor  
 Main Conference Room

**Attendees:**

Mark Benson	Albert Hoe	Matt Lee	Art Wong
Ross Edwards	Jim Kelly	Roger Nguyen	Luis Zurinaga
Shahnam Farhangi	David Kuehn	Joon Park	
John Funghi	Mark Latch	Eric Stassevitch	
John Haley	Brad Lebovitz	Beverly Ward	

1. **1250** – Final Contract Amount
2. **1251** – Differing Condition Related to SFWD Utilities (Trend Nos. 52, 65, and 70) – *For Approval*
3. **1252** – AWSS additional work and changes, ATT additional work and associated TIA (Trend Nos. 1, 2, 3, and 6) *For Approval*
  - Demolish PG&E Duct Bank (Trend No. 8) - *For Approval*
  - UMS Reduced Duration (Trend No. 16) - *Update*
  - Todco Scaffolding Reimbursement (Trend No. 21) - *For Approval*
4. **1253 (UMS)** – Nothing to Report
5. **1254 (CTS)** – Nothing to Report
6. **1255 (MOS)** – Nothing to Report
7. **1256 (STS)** – Nothing to Report
8. **Trend/Change Log** –
9. **Other Business** –

## Meeting Attendance Sheet

**Project No. M544.1, Contract No. 149**  
**Program/Construction Management**  
**Configuration Management Board Meeting No. 97**  
**October 10, 2012**  
**3:00 p.m. – 5:00 p.m.**  
 Central Subway Project Office  
 821 Howard, 2<sup>nd</sup> Floor  
 Main Conference Room

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

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS
Please enter initials if your name is listed below. Please enter name, affiliation, phone number and email address if your name is not listed below.				
Benson, Mark	CSP	(415) 701-4295	Mark.Benson@sfmta.com	<i>MB</i>
Dombrowski, Charles	Hill/PCC	(415) 701-5272	Charles.Dombrowski@sfmta.com	
Edwards, Ross	CSP	(415) 581-5165	Ross.Edwards@sfmta.com	<i>RE</i>
Farhangi, Shahnam	SFMTA	(415) 554-0721	Shahnam.Farhangi@sfmta.com	
Funghi, John	SFMTA	(415) 701-4299	John.Funghi@sfmta.com	
Haley, John	SFMTA		John.Haley@sfmta.com	
Hoe, Albert	SFMTA	(415) 581-5164	Albert.Hoe@sfmta.com	
Kelly, Jim	SFMTA		Jim.Kelly@sfmta.com	
Kuehn, David	STV/PMOC	(510) 464-8053	David.kuehn@stvinc.com	
Latch, Mark	CSP	(415) 701-5294	Mark.Latch@sfmta.com	<i>ML</i>
Lebovitz, Brad	STV/PMOC	(510) 464-8052	Bradley.lebovitz@stvinc.com	<i>BL</i>
Lee, Matt	SFCTA	(415) 522-4813	matt@sfcta.org	<i>ML</i>


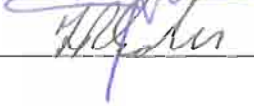

central **T** subway

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS
Nguyen, Roger	SFMTA	(415) 701-4312	Roger.Nguyen@sfmta.com	
Park, Joon	SFMTA	(415) 701-4742	Joon.Park@sfmta.com	<i>[Handwritten initials]</i>
Stassevitch, Eric	CSP	(415) 701-4426	Eric.Stassevitch@sfmta.com	<i>[Handwritten initials]</i>
Ward, Beverly	CSP	(415) 701-5291	Beverly.Ward@sfmta.com	<i>[Handwritten initials]</i>
Wong, Arthur	SFMTA	(415) 701-4305	Arthur.Wong@sfmta.com	<i>[Handwritten initials]</i>
Zurinaga, Luis	SFCTA	(415) 716-6956	Luis.zurinaga@sfcta.org	<i>[Handwritten initials]</i>
<i>Mike Anzola</i>	<i>CSP</i>	<i>701-5282</i>		<i>[Handwritten initials]</i>
<i>sarah wilson</i>	<i>CSP</i>	<i>415.243.0950</i>	<i>sarah.wilson@sfmta.com</i>	<i>SHW</i>
<i>Ken Barnhart</i>	<i>Hill</i>	<i>415-701-5274</i>	<i>Kenneth.Barnhart@sfmta.com</i>	<i>[Handwritten initials]</i>
<i>A. Hoe was in attendance, but did not sign in.</i>				
<i>[Handwritten signature]</i>				



CMB Change No.: CMB - 0079

Initial Implementing Change Control Procedure No.: 1251 - CMod Trend #52, 65 and 70

GENERAL			10/10/2012
Proposed Change Sponsor:	<u>M. Acosta</u>	Received by CMB:	<u><del>09/12/2012</del></u> (Date)
Affected Disciplines:	<u>Utilities</u> <u>Traffic</u>		
Impacts of Change	<ol style="list-style-type: none"> <li>1. Trend #52 – Reroute Unforeseen existing waterline discovered along Geary St. (east of Stockton St.).</li> <li>2. Trend #65 – Additional fittings for AWSS lateral and chipping of pole foundation at Market/Ellis Streets.</li> <li>3. Trend #70 – Core drill primary wall and install interior plumbing at Armani and Disney for the completion of fire service water cutover work.</li> </ol>		
Contract(s) Directly Affected by this Proposed Change:			
1250 1 <input type="checkbox"/> (CP01)	1251 2 <input checked="" type="checkbox"/> (CP02)	1252 3 <input type="checkbox"/> (CP03)	1253 4 <input type="checkbox"/> (CP04)
1254 5 <input type="checkbox"/> (CP05)	1255 6 <input type="checkbox"/> (CP06)	1256 7 <input type="checkbox"/> (CP07)	
CONFIGURATION MANAGEMENT BOARD APPROVALS			
<i>Signatures</i>			
	Agree with the Change	Disagree with the Change	Date
Senior Program Manager:			
Deputy Program Manager:			
PM Project Services:			10/10/12
PM Project Development/Delivery:			10/10/12
SFMTA O & M Manager:			
SFMTA Safety and Security			
SFCTA PMO			10/09/12
Comments			
CM to follow up on reimbursement for Trend 70 with property owner			

## TREND NUMBERS 52, 65 AND 70

**SFMTA Contract No. 1251**  
 UNION SQUARE/MARKET STREET STATION  
 UTILITIES RELOCATION

**Contractor:** Synergy Project Management Inc.  
 30 Grant Street, Suite 300  
 San Francisco, CA 94108

### SUPPLEMENTAL CHANGE ANALYSIS (FOR CMB APPROVAL)

**SCOPE OF WORK:**

Trend 52: Reroute unforeseen existing waterline on discovered along Geary Street (east of Stockton Street).

Trend 65: Additional fittings for AWSS lateral and chipping of pole foundation at Market/Ellis Streets.

Trend 70: Core drill primary wall and install interior plumbing at Armani and Disney as required for the completion of fire service water cutover work.

**REASON FOR CHANGE:**

Trend 52: An unforeseen existing waterline was found to be in conflict with PG&E vault 573 and needed to be rerouted per City's response to RFI #182.

Trend 65: An existing Muni pole foundation is in the way of the AWSS lateral. Additional fittings are required to complete Contract work.

Trend 70: Existing fire service inside the building is a thin-wall steel pipe that extends out to the previously existing sub-sidewalk basement. The 1251 Contractor had backfilled the subsidewalk basement per contract, which now made the steel pipe susceptible to corrosion. The SFWD Inspector state that it was not acceptable to tie-in to the steel pipe due to corrosion issue plus the fact that the pipe is thin walled, which makes welding difficult. A suitable ductile iron pipe needed to be installed from the main into the building.

**COST SUMMARY TABLE:**

Trend Number:	Description of Additional Work Performed:	Contractor's Cost Proposal	Forecasted NTE Cost:	Trended Amount
52	Reroute unforeseen existing waterline on Geary east of Stockton	\$39,167.37	\$28,852.82	\$45,000.00
65	Additional fittings for AWSS lateral and chipping of pole foundation at Market/Ellis	\$43,855.89	\$21,779.12	\$20,000.00
70	Core drill primary wall and install interior plumbing at Armani and Disney for the fire service water cutover	\$14,033.67	\$14,033.67	\$20,959.35
<b>TOTAL</b>		<b>\$97,056.93</b>	<b>\$64,665.61</b>	<b>\$85,959.35</b>

**COST ANALYSIS:**

Each of the 18 FARs submitted by the Contractor was thoroughly reviewed by the SFMTA Resident Engineer. After this comprehensive review it was determined that the final value of these FARs will not exceed the \$64,665.61 total shown in the Cost Summary Table. Note that these final negotiations have not yet taken place therefore the 'Forecast NTE Cost' should not be considered a final agreed cost but rather a ceiling for future negotiations.

Approval of the NTE cost contained herein will allow the Resident Engineer to conduct final negotiations with the Contractor which in turn will facilitate the compilation and execution of a Contract Modification.

**SCHEDULE ANALYSIS:**

This work does not impact the Substantial Completion Date. There is no time adjustment associated with this Contract Modification.

**SUMMARY TABLE FOR TRENDS 52, 65 AND 70**

Differing Conditions Encountered During the Installation of SFWD Related Infrastructure  
SFMTA Central Subway Contract Number 1251 - Union Square/Market Street Station Utilities Relocation

Item #	Index #	FA #	Description	Synergy Requested Amount	SFMTA Current Approved Amount	Forecasted Final Amount
1	2.1.1	2321	Removal of 4" and 12" abandoned water line along Stockton and Maiden Lane	\$8,973.14	\$3,446.46	\$3,446.46
2	2.1.2	2373	SE corner Geary & Stockton - Demo & remove abandoned water valve & fittings not shown on contract documents.	\$1,861.07	\$1,463.21	\$1,463.21
3	2.1.3	3212	Vertical offset for new waterline over existing PG&E vault 467. (Stockton between Maiden Lane and Geary)	\$5,790.30	\$5,295.95	\$5,295.95
4	2.1.4	3230	Stockton/Geary - installation of LPWM (8") per direction of SFMTA.	\$6,704.81	\$5,374.15	\$5,374.15
5	2.1.5	3234	150 Stockton (north side) - installation of LPWM (8") per direction of SFMTA.	\$8,237.99	\$6,220.68	\$6,220.68
6	2.1.7	3237	Install new water line at north side of 150 Stockton	\$7,600.06	\$7,052.37	\$7,052.37
<b>Trend No. 52 Subtotal</b>				<b>\$39,167.37</b>	<b>\$28,852.82</b>	<b>\$28,852.82</b>
7	2.2.2	3296	Chip light pole base at corner of Market & Ellis for AWSS.	\$1,780.64	\$792.15	\$1,461.86
8	2.2.3	3306	Dig for changes on AWSS at the corner of Stockton and Ellis. Hydrant run.	\$5,932.66	\$3,484.97	\$3,484.97
9	2.2.4	3307	Dig/chip existing concrete structure for changes in AWSS hydrant run on Ellis and Market	\$5,471.88	\$3,306.18	\$3,306.18
10	2.2.5	3334	Demo of Bart pole foundation on the corenr of Ellis and Stockton. Foundation is not shown on drawings to be removed. In conflict with new water hydrant	\$5,029.45	\$3,787.58	\$3,787.58
11	2.2.6	3341	AWSS corner of Market/Stockton due to changes in AWSS hydrant configuration	\$8,299.37	\$2,858.13	\$2,858.13
12	2.2.8	3359	Installation of AWSS waterline on Ellis & Market. Change in AWSS design due to light pole conflicts.	\$5,036.89	\$473.94	\$473.94
13	2.2.9	3361	Install AWSS hydrant on Market/Ellis. Change in AWSS due to light base.	\$4,793.13	\$1,093.82	\$1,093.82
14	2.2.10	3363	Chip on newly installed PGE conduit damaged by SFWD while they installed water connection tie in on Geary West (NE Corner).	\$4,256.82	\$3,033.27	\$3,033.27
15	2.2.11	3395	Fix AWSS leak @ point of connection on Ellis St. Installation of AWSS line was different than shown on plans.	\$3,255.05	\$2,279.37	\$2,279.37
<b>Trend No. 65 Subtotal</b>				<b>\$43,855.89</b>	<b>\$21,109.41</b>	<b>\$21,779.12</b>
16	2.3.1	WPR #1	Works plumbing waterline installation work at The Disney Store (Estimate #80)	\$8,587.96	\$8,587.96	\$8,587.96
17	2.3.2	WPR #2	Works plumbing waterline installation work at The Disney Store (Estimate #80)	\$4,586.05	\$4,586.05	\$4,586.05
18	2.3.3	JJA	SFMTA estimate for coring work subcontracted to JJA	\$859.66	\$859.66	\$859.66
<b>Trend No. 70 Subtotal</b>				<b>\$14,033.67</b>	<b>\$14,033.67</b>	<b>\$14,033.67</b>

	Synergy Request Amount	SFMTA Current Approved Amount	Forecasted Final Amount
<i>Trend Numer 52 Subtotal</i>	\$39,167.37	\$28,852.82	\$28,852.82
<i>Trend Numer 65 Subtotal</i>	\$43,855.89	\$21,109.41	\$21,779.12
<i>Trend Numer 70 Subtotal</i>	\$14,033.67	\$14,033.67	\$14,033.67
<b>TOTAL CONTRACT MODIFCATION VALUE</b>	<b>\$97,056.93</b>	<b>\$63,995.90</b>	<b>\$64,665.61</b>

## CONTRACT MODIFICATION NO. 21 Final Contract Bid Item Adjustment

**SFMTA Contract No. 1250**  
MOSCONE STATION AND PORTAL  
UTILITIES RELOCATION

**Contractor:** Synergy Project Management Inc.  
150 Executive Park Blvd., Suite 4750  
San Francisco, Ca 94134

### SUPPLEMENTAL ANALYSIS (FOR CMB PRESENTATION)

#### SCOPE OF WORK:

Adjust Contract Unit prices for Bid Items whose final used quantities were determined to be:

- (a.) Less than 75 percent of the quantity shown in the Schedule of Bid Prices [17 Bid Items Total]
- (b.) Greater than 125 percent of the quantity shown in the Schedule of Bid Prices [3 Bid Items Total]

Refer to the attached Contract Bid Item Analysis spreadsheet for a detailed breakdown of all Contract Bid Items.

#### REASON FOR CHANGE:

Pursuant to Contract General Provisions Paragraph 11 "Estimate of the Amount of Work to be Done", at the conclusion of Contract work the SFMTA and the Contractor are to review all Contract Bid Items and identify ones whose final usages exceed the overage/underage thresholds listed above.

For Bid Items whose final total usage is under the 75 percent threshold, the Contractor is entitled to negotiate a modified higher Unit Price. This is permitted as to enable the Contractor to recoup his general conditions costs which were included within the unused portion of the Bid Item in question.

For Bid Items whose final total usage is over the 125 percent threshold, the SFMTA is entitled to negotiate a modified lower Unit Price. This is permitted as to enable the SFMTA to realize a cost savings resulting from the Contractor's added efficiency/experience resulting from that higher actual final quantity as compared to the anticipated quantity used to create a Unit Price during the bidding process.

#### TOTAL MODIFICATION VALUE:

\$(170,620.15)	Unused Bid Item Amount
+ \$49,669.04	Contractor's Additional General Condition Costs (including credits to SFMTA)
<b>\$(120,951.11)</b>	<b>Net Contract Value Change Related to Final Bid Item Adjustment</b>

#### COST ANALYSIS:

After completing the attached Contract Bid Item Analysis, the SFMTA Resident Engineer met with the Contractor to propose a final compensation value for the Bid Item overage/underage discussed herein. During this meeting it was agreed that there was \$(170,620.15) in unused Contract Bid Items.

In addition to the unused Bid Item amount discussed above, the SFMTA Resident Engineer and the Contractor also reviewed and agreed upon the Contractor's general conditions/overhead rate. In order to validate his proposed rate, the Contractor submitted an itemized breakdown of all his general condition costs (attached for reference). After a review of this supporting documentation, the SFMTA Resident Engineer and the Contractor were able to agree on a 19.69 percent for general conditions costs. Note that this is the rate used in the "General Conditions" column on the attached Contract Bid Item Analysis spreadsheet.

Having agreed on the aforementioned net Bid Item underage and the overhead rate, the SFMTA Resident Engineer and the Contractor were able to agree that \$(120,951.11) represented a complete and final Contract Modification to bring SFMTA Contract Number 1250 to completion.

With the execution of this final Contract Modification to Contract Number 1250 the final Contract value will become:

\$9,273,939.00	Original Contract Amount
\$2,840,841.00	Contract Modifications No. 01 through No. 20
+ \$(120,951.00)	Contract Modification No. 21 (presented herein)
<b>\$11,993,829.00</b>	<b>Final Contract Value</b>

**SCHEDULE ANALYSIS:**

There is no time extension associated with this Contract Modification.

**CONTRACT BID ITEM ANALYSIS**

SFMTA CONTRACT No. 1250 - Phase 2 Central Subway  
MOSCONE STATION AND PORTAL UTILITIES RELOCATION

Report Date: 9/25/12

BID ITEM COUNT	ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE	CONTRACT		ACTUAL EXPENDITURE	OVER/UNDER		75% OR 125% OF CONTRACT AMOUNT	ELIGIBLE EXPENDITURE DIFFERENCE	GENERAL CONDITIONS (19.6% OF ELEG. EXPN. DIFF.)
					QUANTITY	AMOUNT		%	\$			
1	GE-1	MOBILIZATION AND DEMOBILIZATION	LS	\$700,000.00	1	\$700,000.00	\$700,000.00	100%	\$0.00			
2	GE-2	CURRENT SCHEDULES	EA	1,200.00	13	\$15,600.00	\$18,000.00	115%	\$2,400.00			
3	GE-3	ALLOWANCE FOR REIMBURSABLE EXPENSES	AL	\$30,000.00	1	\$30,000.00	\$30,768.89	103%	\$768.89			
4	GE-4	ALLOWANCE FOR DIFFERING SITE CONDITIONS	AL	\$150,000.00	1	\$150,000.00	\$354,482.97	236%	\$204,482.97			
5	GE-5	ALLOWANCE FOR ARCHAEOLOGICAL DISCOVERIES	AL	\$50,000.00	1	\$50,000.00	\$50,000.00	100%	\$0.00			
6	GE-6	ALLOWANCE FOR HAZMAT	AL	\$100,000.00	1	\$100,000.00	\$40,840.39	41%	(\$59,159.61)			
7	GE-7	ALLOWANCE FOR RELOCATING CITY-OWNED PULL BOXES FOR CURB RAMPS	AL	\$18,000.00	1	\$18,000.00	\$13,298.03	74%	(\$4,701.97)			
8	GE-8	ALLOWANCE FOR CAST-IN-PLACE UTILITY VAULTS	AL	\$100,000.00	1	\$100,000.00	\$49,000.00	49%	(\$51,000.00)			
9	GE-9	TRENCH BOTTOM STABILIZATION	CY	20.00	300	\$6,000.00	\$6,000.00	100%	\$0.00			
10	TR-1	TRAFFIC REGULATION	LS	450,000.00	1	\$450,000.00	\$450,000.00	100%	\$0.00			
11	TR-2	TRITON WATER FILLED BARRIER OR EQUAL	EA	1,000.00	10	\$10,000.00	\$10,000.00	100%	\$0.00			
12	TR-3	CHANGEABLE MESSAGE SIGNS	EA	13,200.00	2	\$26,400.00	\$26,400.00	100%	\$0.00			
13	TR-4	CONSTRUCTION AREA AND SPECIAL TRAFFIC SIGNS	EA	500.00	20	\$10,000.00	\$5,000.00	50%	(\$5,000.00)	\$7,500.00	\$2,500.00	\$492.25
14	TR-5	TEMPORARY PAVEMENT MARKING, DELINEATION TAPE AND OVERLAY RAISED MARKERS AFTER FINAL PAVING	LS	11,250.00	1	\$11,250.00	\$11,250.00	100%	\$0.00			
15	TR-6	ALLOWANCE FOR MANUAL TRAFFIC CONTROL	AL	\$55,000.00	1	\$55,000.00	\$63,469.85	115%	\$8,469.85			
16	UD-1	HANDLING AND DISPOSAL OF STREET TREES	LS	5,000.00	1	\$5,000.00	\$5,000.00	100%	\$0.00			
17	UD-2	DEMOLITION OF PG&E VAULTS	LS	12,000.00	1	\$12,000.00	\$12,000.00	100%	\$0.00			
18	UD-3	DEMOLITION OF AT&T VAULT 2082	LS	18,000.00	1	\$18,000.00	\$18,000.00	100%	\$0.00			
19	UD-4	Not Used										
20	UD-5	HANDLING AND DISPOSAL OF CALIFORNIA CLASS 1 (NON-RCRA) HAZARDOUS WASTE	Ton	10.00	6000	\$60,000.00	\$0.00	0%	(\$60,000.00)	\$45,000.00	\$45,000.00	\$8,860.50
21	UD-6	TRANSPORTATION OF CALIFORNIA CLASS 1 (NON- RCRA) HAZARDOUS WASTE	Ton	15.00	6000	\$90,000.00	\$0.00	0%	(\$90,000.00)	\$67,500.00	\$67,500.00	\$13,290.75
22	UD-7	HANDLING AND DISPOSAL OF CALIFORNIA CLASS 2 (NON-HAZARDOUS) EXCAVATED MATERIAL	Ton	10.00	6000	\$60,000.00	\$67,272.40	112%	\$7,272.40			
23	UD-8	TRANSPORTATION OF CALIFORNIA CLASS 2 (NON- HAZARDOUS) EXCAVATED MATERIAL	Ton	15.00	6000	\$90,000.00	\$100,908.60	112%	\$10,908.60			
24	UD-9	ADDITIONAL EXPLORATORY HOLES	EA	1,000.00	50	\$50,000.00	\$42,000.00	84%	(\$8,000.00)			
25	UD-10	ADDITIONAL EXCAVATION AND BACKFILL	CY	250.00	200	\$50,000.00	\$46,795.00	94%	(\$3,205.00)			
26	UD-11	PRE-EXCAVATION ENVIRONMENTAL SOIL PROFILING	LS	35,000.00	1	\$35,000.00	\$35,000.00	100%	\$0.00			
27	JT-1	WIDTH<1-FT (DEPTH<5-FT)	LF	140.00	550	\$77,000.00	\$34,300.00	45%	(\$42,700.00)			
28	CM 3	Quantity adjustment for JT-1: WIDTH<1-FT (DEPTH<5-FT)	LF	\$140.00			\$37,240.00		\$37,240.00			
29	JT-2	1-FT≤WIDTH<2-FT (DEPTH<5-FT)	LF	160.00	1630	\$260,800.00	\$119,360.00	46%	(\$141,440.00)			
30	CM 3	Quantity adjustment for JT-2: 1-FT≤WIDTH<2-FT (DEPTH<5- FT)	LF	\$160.00		\$0.00	\$102,400.00		\$102,400.00			
31	JT-3	2-FT≤WIDTH<3-FT (DEPTH<5-FT)	LF	175.00	430	\$75,250.00	\$182,700.00	243%	\$107,450.00			
32	JT-4	WIDTH≥3-FT (DEPTH<5-FT)	LF	190.00	280	\$53,200.00	\$150,860.00	284%	\$97,660.00			
33	JT-5	WIDTH<2-FT (5-FT≤DEPTH<8-FT)	LF	170.00	190	\$32,300.00	\$16,150.00	50%	(\$16,150.00)			
34	JT-6	2-FT≤WIDTH<3-FT (5-FT≤DEPTH<8-FT)	LF	195.00	230	\$44,850.00	\$44,850.00	100%	\$0.00			
35	CM 3	Quantity adjustment for JT-6: 2-FT≤WIDTH<3-FT (5- FT≤DEPTH<8-FT)	LF	\$195.00			(\$18,915.00)		(\$18,915.00)			
36	JT-7	WIDTH≥3-FT (5-FT≤DEPTH<8-FT)	LF	230.00	500	\$115,000.00	\$180,550.00	157%	\$65,550.00			
37	JT-8	WIDTH<2-FT (8-FT≤DEPTH<12-FT)	LF	180.00	15	\$2,700.00	\$21,600.00	800%	\$18,900.00			
38	JT-9	2-FT≤WIDTH<3-FT (8-FT≤DEPTH<12-FT)	LF	190.00	220	\$41,800.00	\$72,200.00	173%	\$30,400.00			
39	JT-10	WIDTH≥3-FT (8-FT≤DEPTH<12-FT)	LF	200.00	490	\$98,000.00	\$79,400.00	81%	(\$18,600.00)			
40	CM 3	Quantity adjustment for JT-10: WIDTH≥3-FT (8- FT≤DEPTH<12-FT)	LF	\$200.00			(\$42,800.00)		(\$42,800.00)			
41	JT-11	WIDTH<3-FT (DEPTH≥12-FT)	LF	260.00	360	\$93,600.00	\$20,020.00	21%	(\$73,580.00)			



**CONTRACT BID ITEM ANALYSIS**

SFMTA CONTRACT No. 1250 - Phase 2 Central Subway  
MOSCONE STATION AND PORTAL UTILITIES RELOCATION

Report Date: 9/25/12

BID ITEM COUNT	ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE	CONTRACT		ACTUAL EXPENDITURE	OVER/UNDER		75% OR 125% OF CONTRACT AMOUNT	ELIGIBLE EXPENDITURE DIFFERENCE	GENERAL CONDITIONS (19.6% OF ELEG. EXPN. DIFF.)
					QUANTITY	AMOUNT		%	\$			
42	CM 3	Quantity adjustment for JT-11: WIDTH<3-FT (DEPTH≥12-FT)	LF	\$260.00			\$55,640.00		\$55,640.00			
43	JT-12	WIDTH≥3-FT (DEPTH≥12-FT)	LF	275.00	860	\$236,500.00	\$39,875.00	17%	(\$196,625.00)			
44	CM 3	Quantity adjustment for JT-12: WIDTH<3-FT (DEPTH≥12-FT)	LF	\$275.00			\$74,250.00		\$74,250.00			
45	JT-13	INTERCEPT UTILITY VAULTS TYPE PTS69	EA	30,000.00	4	\$120,000.00	\$120,000.00	100%	\$0.00			
46	JT-14	UTILITY VAULT T4	EA	4,000.00	4	\$16,000.00	\$0.00	0%	(\$16,000.00)	\$12,000.00	\$12,000.00	\$2,362.80
47	JT-15	UTILITY VAULT T3	EA	4,000.00	1	\$4,000.00	\$0.00	0%	(\$4,000.00)	\$3,000.00	\$3,000.00	\$590.70
48	JT-16	UTILITY VAULT T2	EA	4,000.00	1	\$4,000.00	\$0.00	0%	(\$4,000.00)	\$3,000.00	\$3,000.00	\$590.70
49	JT-17	UTILITY VAULT TYPE 7	EA	20,000.00	8	\$160,000.00	\$80,000.00	50%	(\$80,000.00)	\$120,000.00	\$40,000.00	\$7,876.00
50	JT-18	UTILITY VAULT TYPE 4X4X4 ARMORCAST	EA	10,000.00	1	\$10,000.00	\$10,000.00	100%	\$0.00			
51	JT-19	UTILITY VAULT TYPE I	EA	1,200.00	4	\$4,800.00	\$2,400.00	50%	(\$2,400.00)	\$3,600.00	\$1,200.00	\$236.28
52	JT-20	UTILITY VAULT TYPE III	EA	1,200.00	5	\$6,000.00	\$6,000.00	100%	\$0.00			
53	JT-21	UTILITY VAULT TYPE 3X	EA	1,500.00	4	\$6,000.00	\$6,000.00	100%	\$0.00			
54	JT-22	UTILITY VAULT 38-687	EA	22,000.00	2	\$44,000.00	\$44,000.00	100%	\$0.00			
55	JT-23	UTILITY VAULT 38-687 custom	EA	25,000.00	1	\$25,000.00	\$25,000.00	100%	\$0.00			
56	JT-24	UTILITY VAULT Christie B44	EA	2,200.00	1	\$2,200.00	\$2,200.00	100%	\$0.00			
57	JT-25	FURNISH AND INSTALL 2" HDPE (High Density Polyethylene) CONDUIT	LF	13.00	8,570	\$111,410.00	\$186,693.00	168%	\$75,283.00			
58	JT-26	FURNISH AND INSTALL 4" HDPE (High Density Polyethylene) CONDUIT	LF	18.00	11,300	\$203,400.00	\$203,148.00	100%	(\$252.00)			
59	JT-27	FURNISH AND INSTALL 3" PVC (Polyvinyl Chloride) CONDUIT	LF	15.00	1,100	\$16,500.00	\$116,145.00	704%	\$99,645.00			
60	JT-28	FURNISH AND INSTALL 4" PVC (Polyvinyl Chloride) CONDUIT	LF	17.00	32,300	\$549,100.00	\$475,099.00	87%	(\$74,001.00)			
61	JT-29	FURNISH AND INSTALL 5" PVC (Polyvinyl Chloride) CONDUIT	LF	20.00	230	\$4,600.00	\$9,060.00	197%	\$4,460.00			
62	JT-30	FURNISH AND INSTALL 6" PVC (Polyvinyl Chloride) CONDUIT	LF	22.00	6,230	\$137,060.00	\$134,024.00	98%	(\$3,036.00)			
63	JT-31	FURNISH AND INSTALL 1-1/2" QUADLOCK	LF	22.00	1,050	\$23,100.00	\$27,940.00	121%	\$4,840.00			
64	JT-32	FURNISH AND INSTALL 1-1/2" GRS (Galvanized Rigid Steel) CONDUIT	LF	18.00	890	\$16,020.00	\$9,396.00	59%	(\$6,624.00)			
65	JT-33	FURNISH AND INSTALL 2" GRS (Galvanized Rigid Steel) CONDUIT	LF	20.00	5,260	\$105,200.00	\$9,120.00	9%	(\$96,080.00)			
66	JT-34	FURNISH AND INSTALL 2" GAS PE (Polyethylene) CONDUIT	LF	14.00	760	\$10,640.00	\$10,640.00	100%	\$0.00			
67	JT-35	FURNISH AND INSTALL 6" GAS PE (Polyethylene) CONDUIT	LF	55.00	500	\$27,500.00	\$27,500.00	100%	\$0.00			
68	SW-1	Trench And Excavation Support Work	LS	550,000.00	1	\$550,000.00	\$550,000.00	100%	\$0.00			
69	SW-2	Demolition, Removals, & Abandonment	LS	250,000.00	1	\$250,000.00	\$250,000.00	100%	\$0.00			
70	SW-3	12-Inch Diameter VCP Sewer On Crushed Rock Bedding	LF	170.00	850	\$144,500.00	\$148,070.00	102%	\$3,570.00			
71	SW-4	14-Inch Diameter HDPE Pipe SDR-17 On Crushed Rock Bedding	LF	200.00	90	\$18,000.00	\$18,000.00	100%	\$0.00			
72	SW-5	15-Inch Diameter VCP Sewer On Crushed Rock Bedding	LF	217.60	210	\$45,696.00	\$44,608.00	98%	(\$1,088.00)			
73	SW-6	18-Inch Diameter VCP Sewer On Crushed Rock Bedding	LF	255.00	240	\$61,200.00	\$65,662.50	107%	\$4,462.50			
74	SW-7	21-Inch Diameter VCP Sewer On Crushed Rock Bedding	LF	268.60	240	\$64,464.00	\$65,538.40	102%	\$1,074.40			
75	SW-8	24-Inch Diameter VCP Sewer On Crushed Rock Bedding	LF	317.90	230	\$73,117.00	\$0.00	0%	(\$73,117.00)	\$54,837.75	\$54,837.75	\$10,797.55
76	SW-9	Not Used										
77	SW-10	48-Inch Diameter RCP Class IV Sewer on Crushed Rock Bedding	LF	500.00	260	\$130,000.00	\$100,000.00	77%	(\$30,000.00)			

**CONTRACT BID ITEM ANALYSIS**

SFMTA CONTRACT No. 1250 - Phase 2 Central Subway  
MOSCONE STATION AND PORTAL UTILITIES RELOCATION

Report Date: 9/25/12

BID ITEM COUNT	ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE	CONTRACT		ACTUAL EXPENDITURE	OVER/UNDER		75% OR 125% OF CONTRACT AMOUNT	ELIGIBLE EXPENDITURE DIFFERENCE	GENERAL CONDITIONS (19.6% OF ELEG. EXPN. DIFF.)
					QUANTITY	AMOUNT		%	\$			
78	SW-11	Concrete Manhole For Pipe Size 12" to 24" In Diameter With New Frame And Cover (Per Std. Plan 87,181)	EA	4,500.00	21	\$94,500.00	\$99,000.00	105%	\$4,500.00			
79	CM 2	Delete two standard sewer MH from bid item SW-11(COR #5)	LS	(\$9,000.00)	0	\$0.00	\$9,000.00		\$9,000.00			
80	SW-12	Concrete Manhole For Pipe Size 27" to 48" In Diameter With New Frame And Cover (Per Std. Plan 87,182)	EA	15,000.00	3	\$45,000.00	\$30,000.00	67%	(\$15,000.00)	\$33,750.00	\$3,750.00	\$738.38
81	SW-13	Sewer Main Cleanout (Per Detail on SW-011)	EA	800.00	1	\$800.00	\$800.00	100%	\$0.00			
82	SW-14	Concrete Catchbasin with New Frame, Grating, and Cast Iron Trap (Per SFDPW Std. Plan 87,188)	EA	3,300.00	9	\$29,700.00	\$42,900.00	144%	\$13,200.00			
83	SW-15	Concrete Storm Water Inlet with New Frame And Grating (Per SFDPW Std. Plan 87,189)	EA	3,300.00	2	\$6,600.00	\$0.00	0%	(\$6,600.00)	\$4,950.00	\$4,950.00	\$974.66
84	SW-16	10-Inch Diameter VCP Culvert	LF	125.00	340	\$42,500.00	\$34,750.00	82%	(\$7,750.00)			
85	SW-17	Cast Iron Water Trap For Catchbasin Including Cleanout Cap	EA	330.00	26	\$8,580.00	\$660.00	8%	(\$7,920.00)	\$6,435.00	\$5,775.00	\$1,137.10
86	SW-18	Television Inspection of 6, 8, 10, or 12-Inch Diameter Side Sewer or 10-Inch Diameter Culvert	EA	350.00	50	\$17,500.00	\$17,500.00	100%	\$0.00			
87	SW-19	6 or 8-Inch Diameter Side Sewer Connection to VCP (Contingency Item) (1)	EA	250.00	50	\$12,500.00	\$8,500.00	68%	(\$4,000.00)			
88	SW-20	6, 8, 10 or 12-Inch Diameter Side Sewer or 10-Inch Diameter Culvert Connection to RCP	EA	400.00	7	\$2,800.00	\$1,200.00	43%	(\$1,600.00)			
89	SW-21	6 or 8-Inch Diameter HDPE Welded Side Sewer Connection	EA	1,000.00	2	\$2,000.00	\$5,000.00	250%	\$3,000.00			
90	SW-22	6, 8, 10, or 12-Inch Diameter Side Sewer Replacement	LF	150.00	430	\$64,500.00	\$31,500.00	49%	(\$33,000.00)	\$48,375.00	\$16,875.00	\$3,322.69
91	SW-23	Bypassing Main Sewer Flow	LS	60,000.00	1	\$60,000.00	\$60,000.00	100%	\$0.00			
92	SW-24	Post Construction Television Inspection of Newly Constructed Main Sewers	LS	7,500.00	1	\$7,500.00	\$7,500.00	100%	\$0.00			
93	SS-1	Fifth & Clementina Connection Structure	LS	40,000.00	1	\$40,000.00	\$40,000.00	100%	\$0.00			
94	SS-1	Fourth & Bryant Junction Structure	LS	40,000.00	1	\$40,000.00	\$40,000.00	100%	\$0.00			
95	WD-1	METER BOX REMOVAL/INSTALLATION	EA	1,000.00	7	\$7,000.00	\$10,000.00	143%	\$3,000.00	\$8,750.00	(\$1,250.00)	(\$246.13)
96	WD-2A	INSTALLATION 6" DIP WITH POLYETHYLENE ENCASEMENT	LF	23.00	29	\$667.00	\$230.00	34%	(\$437.00)			
97	WD-2B	INSTALLATION 8" DIP WITH POLYETHYLENE ENCASEMENT	LF	23.00	540	\$12,420.00	\$8,257.00	66%	(\$4,163.00)	\$9,315.00	\$1,058.00	\$208.32
98	WD-2C	INSTALLATION 12" DIP WITH POLYETHYLENE ENCASEMENT	LF	38.00	30	\$1,140.00	\$1,330.00	117%	\$190.00			
99	WD-3	INSTALLATION OF SCREW TAPS	EA	100.00	8	\$800.00	\$600.00	75%	(\$200.00)			
100	WD-4A	INSTALLATION OF 1" SERVICE PIPE	LF	150.00	20	\$3,000.00	\$3,000.00	100%	\$0.00			
101	WD-4B	INSTALLATION OF 2" SERVICE PIPE	LF	200.00	50	\$10,000.00	\$10,000.00	100%	\$0.00			
102	WD-5	TRENCH EXCAVATION & BACKFILL FOR PIPE INSTALLED BY SFDW AND FH LATERALS	LF	175.00	320	\$56,000.00	\$95,725.00	171%	\$39,725.00	\$70,000.00	(\$25,725.00)	(\$5,065.25)
103	WD-6	CORE DRILL CONCRETE WALL FOR LARGE SERVICES	EA	1,000.00	2	\$2,000.00	\$3,000.00	150%	\$1,000.00	\$2,500.00	(\$500.00)	(\$98.45)
104	AW-1	Furnish & Install AWSS Works	LS	80,000.00	1	\$80,000.00	\$80,000.00	100%	\$0.00			
105	AW-2	Drain/Fill AWSS Cistern	LS	15,000.00	1	\$15,000.00	\$15,000.00	100%	\$0.00			
106	AW-3	Install Monitoring at AWSS Crossing	EA	1,500.00	14	\$21,000.00	\$21,000.00	100%	\$0.00			
107	AW-4	AWSS System Shutdown	LS	10,000.00	1	\$10,000.00	\$10,000.00	100%	\$0.00			
108	RP-1	Asphalt Concrete (Type A, 1/2-Inch Maximum With Medium Grading)	TON	175.00	320	\$56,000.00	\$110,755.25	198%	\$54,755.25			
109	RP-2	8-Inch Thick Concrete Base	SF	9.00	25,200	\$226,800.00	\$273,042.00	120%	\$46,242.00			
110	RP-3	8-Inch Thick Concrete Pavement	SF	9.50	1,900	\$18,050.00	\$11,970.00	66%	(\$6,080.00)	\$13,537.50	\$1,567.50	\$308.64
111	RP-4	6-Inch Wide Concrete Curb	LF	32.00	1,850	\$59,200.00	\$65,472.00	111%	\$6,272.00			
112	RP-5	1-Foot Wide Concrete Gutter	LF	35.00	1,330	\$46,550.00	\$59,325.00	127%	\$12,775.00			
113	RP-6	2-Foot Wide Concrete Gutter	LF	38.00	300	\$11,400.00	\$7,600.00	67%	(\$3,800.00)	\$8,550.00	\$950.00	\$187.06
114	RP-7	3 1/2-Inch Thick Concrete Sidewalk	SF	9.00	9,700	\$87,300.00	\$84,559.50	97%	(\$2,740.50)			

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Report Date: 9/25/12

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					QUANTITY	AMOUNT		%	\$			
115	RP-8	8-Inch Thick Concrete Sidewalk	SF	12.00	300	\$3,600.00	\$5,760.00	160%	\$2,160.00			
116	RP-9	Concrete Curb Ramp	EA	2,500.00	11	\$27,500.00	\$27,500.00	100%	\$0.00			
117	RP-10	Cast-In Place Detectable Surface Tile	SF	45.00	70	\$3,150.00	\$2,970.00	94%	(\$180.00)			
118	ET-1	TRAFFIC SIGNALS	LS	35,000.00	1	\$35,000.00	\$35,000.00	100%	\$0.00			
119	BP-1	UNDERPINNING OF 801-805 HOWARD STREET	LS	200,000.00	1	\$200,000.00	\$200,000.00	100%	\$0.00			
120	BP-2	UNDERPINNING OF 401 FOURTH STREET	LS	464,000.00	1	\$464,000.00	\$464,000.00	100%	\$0.00			
121	BP-3	DEMOLITION OF MOSCONE CENTER TIE-BACKS AND TEMPORARY SHORING	EA	300.00	44	\$13,200.00	\$13,200.00	100%	\$0.00			
122	BP-4	RESTORATION OF BUILDING WATERPROOFING	SF	10.00	4,000	\$40,000.00	\$14,233.07	36%	(\$25,766.93)	\$30,000.00	\$15,766.93	\$3,104.51
123	MP-01	PLUMBING SYSTEM	LS	100,000.00	1	\$100,000.00	\$100,000.00	100%	\$0.00			
124	EL-1	STREET LIGHTING WORK	LS	12,500.00	1	\$12,500.00	\$12,500.00	100%	\$0.00			
125	TP-1	TRACTION POWER SYSTEM	LS	360,000.00	1	\$360,000.00	\$360,000.00	100%	\$0.00			
126	OV-1	OVERHEAD SPECIAL WORK AT 4TH STREET AND HARRISON STREET	LS	125,000.00	1	\$125,000.00	\$125,000.00	100%	\$0.00			
127	OV-2	PROVIDE STEEL TROLLEY POLE TYPE 770	LS	15,000.00	1	\$15,000.00	\$15,000.00	100%	\$0.00			
128	SW-OP1	42-Inch Diameter RCP Class IV Sewer With Controlled Density Fill	LF	435.00	235	\$102,225.00	\$87,870.00	86%	(\$14,355.00)			
129	SW-OP2	48-Inch Diameter RCP Class IV Sewer With Controlled Density Fill	LF	445.00	260	\$115,700.00	\$115,700.00	100%	\$0.00			
130	SW-OP3	Concrete Manhole For Pipe Size 27" to 48" In Diameter With New Frame And Cover (Per Std. Plan 87,182)	EA	15,000.00	4	\$60,000.00	\$45,000.00	75%	(\$15,000.00)			
131	OV-OP1	PROVIDE SPECIAL TROLLEY POLE FOUNDATION	LS	6,000.00	1	\$6,000.00	\$6,000.00	100%	\$0.00			
132	OV-OP2	REMOVE EXISTING TROLLEY POLE AND FOUNDATION ENTIRELY	LS	3,000.00	1	\$3,000.00	\$3,000.00	100%	\$0.00			
133	ST-OP1	VAULT CLOSURE WALL AT 475 FOURTH STREET	LS	25,000.00	1	\$25,000.00	\$25,000.00	100%	\$0.00			
134	UD-OP1	DEMOLITION OF 475 FOURTH STREET SUBSIDEWALK VAULTS	EA	25,000.00	1	\$25,000.00	\$25,000.00	100%	\$0.00			
135	MF-OP1	FIRE PROTECTION SPRINKLER SYSTEM	LS	50,000.00	1	\$50,000.00	\$50,000.00	100%	\$0.00			
136	WD-OP1	INSTALLATION 8" DIP WITH POLYETHYLENE ENCASEMENT	LF	250.00	50	\$12,500.00	\$0.00	0%	(\$12,500.00)			

TOTAL BASE CONTRACT:		\$9,273,939.00	\$9,103,318.85	(\$170,620.15)	\$49,669.04
TOTAL CONTRACT MODIFICATIONS (No. 01 through No. 20):		\$2,840,841.00	\$2,840,841.00		
TOTAL:		\$12,114,780.00	\$11,944,159.85	(\$170,620.15)	

	Net Bid Item Underage	Additional General Conditions Costs	Total Contract Modification Value
CONTRACT MODIFICATION NO. 21:	(\$170,620.15)	\$49,669.04	(\$120,951.11)

April/May includes estimates

	JANUARY 2010 (1)	FEBRUARY 2010 (2)	MARCH 2010 (3)	APRIL 2010 (4)	MAY 2010 (5)	JUNE 2010 (6)	JULY 2010 (7)	AUGUST 2010 (8)	SEPTEMBER 2010 (9)	OCTOBER 2010 (10)	NOVEMBER 2010 (11)	DECEMBER 2010 (12)	JANUARY 2011 (13)	FEBRUARY 2011 (14)	MARCH 2011 (15)	APRIL 2011 (16)	MAY 2011 (17)
Other Wages, Salary, Bonus	21,731	43,539	51,006	43,072	50,756	36,116	33,347	53,545	32,005	33,919	36,145	49,504	48,558	53,504	55,114	65,706	66,551
Payroll Tax Expense Indirect	3,184	6,378	7,472	6,310	7,436	5,291	4,885	7,844	4,689	4,969	5,295	7,252	7,114	7,838	8,074	9,626	9,750
Insurance- Workers' Comp	1,456	2,917	3,417	2,886	3,401	2,420	2,234	3,588	2,144	2,273	2,422	3,317	3,253	3,585	3,693	4,402	4,459
Contract Labor	49,864	42,119	67,996	48,985	35,974	31,531	21,546	12,766	22,582	25,399	27,800	18,576	17,352	29,244	19,661	12,461	12,461
Other Employee costs	350	320	1,090	66		462	68	404	541	1,158	295		80		1,904	297	
Insurance- General Liability	8,293	8,293	8,277	8,277	8,277	8,276	8,276	8,702	8,277	8,277	8,277	8,277	8,277	8,277	11,833	10,875	10,875
Printing & Reproduction	3,880	2,063	5,995		2,216	404	89	1,714	100	489	3,960		65	399			
Shop Supplies/Small tools	16,096	19,751	28,199	21,090	24,406	25,546	24,903	14,842	12,736	14,979	10,371	5,442	10,428	24,434	20,211	27,506	24,832
Shop Telephone	1,766	1,982	1,355	1,730	1,724	1,764	1,685	1,623	1,138	1,218	1,855	2,370	1,529	1,569	1,315	1,500	1,500
Shop Utilities	1,610	1,610	3,139	2,430	3,892	2,859	5,614	3,503	3,714	1,545	3,598	3,747	3,490	3,988	2,955	3,000	3,000
Shop Rent	3,690	3,902	3,945	5,324	4,309	7,200	7,117	6,308	6,309	6,329	6,329	6,329	9,158	5,500	5,595	5,500	5,500
Shop Equipment- depreciation	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633	3,633
Rep & Maint- Building, Insurance			3,955			4,250		1,196	1,000		3,000	19,589	5,000		400		
Vehicle Cost - Toll, tow, prk,		233	1,094	124	993	483	233	311	413	464	386	431	2,825	54	61	60	
Vehicle cost - registration	1,058	(13)	8,646		33	8,968	7,013	3,794	6,017	1,090	8,749	3,124			1,763		1,712
Vehicle Cost - Insurance	4,429	4,429	4,079	3,817	3,817	3,817	3,816	3,817	3,817	3,817	3,817	3,817	3,817	3,817	4,313	4,313	4,313
Vehicle Cost - Depreciation	3,206	3,206	3,206	3,206	3,206	3,205	3,855	3,855	3,855	3,832	3,832	3,832	3,832	3,832	3,832	3,832	3,832
Uncategorized			15,434														
Meals/Travel			185	518	286	76	85	228	39	193	90						
Repairs & Mtc	13,193	6,973	15,326	19,630	23,147	10,349	17,492	8,865	21,857	25,396	11,120	4,132	24,124	12,773	4,090	17,195	10,000
Gas & Oil @ 20% of actual	3,625	3,183	4,473	4,304	5,024	4,007	3,109	2,983	2,048	2,130	2,246	2,568	2,326	3,478	5,267	5,385	5,499
Salaries & Wages-Officer	4,000	8,000	9,600	8,000	10,000	8,000	8,000	10,000	8,000	8,000	10,000	10,000	8,000	8,000	8,000	8,000	8,000
Salaries & Wages-Other	2,190	3,200	4,000	3,200	4,000	3,200	3,200	3,750	3,200	3,200	4,000	4,000	3,613	4,000	3,900	4,000	4,000
Payroll Tax Expense- G & A	907	1,641	1,992	1,641	2,051	1,641	1,641	2,014	1,641	1,641	2,051	2,051	1,701	1,758	1,743	1,758	1,758
Insurance- Health & Dental G&A	1,883		3,766	3,099	480	3,228	2,618	1,319	3,296	2,254	425	425	3,650	5,424	3,507	8,869	6,188
Insurance- Gen Liability G&A	570	662	425	425	425	425	425	425	425	425	425	425	425	425	318	318	318
Training												1,475	1,826		308		100
Dues and Subscriptions	296	1,020	2,638	30	30	30	412	30	233	591	234	386	491	382	236		250
Postage & Delivery	18	138	115	72	95	67	146	84	84	46	16	51	30	17	43	50	50
Office Supplies	1,187	1,761	1,265	1,345	1,308	1,058	1,756	495	2,527	1,048	892	4,681	2,270	1,045	1,855	1,274	1,500
Office Equipment	1,006	558	487	535	531	540	443	242	428	423	1,094	390					
Office Telephone	965	778	2,461	879	1,328	1,820	1,832	1,149	1,577	1,164	1,520	684	1,047	947	1,016	1,000	1,000
Office Utilities	1,756	664	1,116	879	815	95	207	204	204	204	1,520	684	213		(550)		
Office Rent	9,059	9,059	9,059	9,059	9,059	9,059	9,059	9,059	9,059	9,059	9,059	9,059	14,031	14,031	11,572	11,572	11,572
Rep & Maint- Office Equipment	2,246						300		227	1,530		953	3,394	150			
Licenses & Permits										4,789	431		11	1,399	405		1,650
Outside Services												2,500					
Printing/Reproduction				28		323		202									
Legal & Accounting	3,963	6,551	30,071	4,031	19,715	7,396	4,443	2,081	4,998	5,275	6,310	22,763	15,630	15,076	31,462	8,329	5,138
Business Promotion		21		100		174		700	1,345	185	2,428		537	130	100		
Bank Fees	66	18	633	92	153	2,525	113	171	204	251	371	111	64	65	40	7,557	100
Rep & Maint- Vehicle G&A	720		475	729			51	564	1,833	180	500	106	103		(611)		
Vehicle Registration & License-G&A						18	219	24	8	713	298	40	40				
Gas & Oil - G&A	901	978	1,231	1,368	1,042	1,386	758	595	1,718	1,211	1,557	1,134	889	821	1,000	1,000	1,000
Vehicle Insurance-G&A	651	651	651	651	702	687	616	400	400	400	400	400	483	400	400	400	400
Vehicle Lease Expense-G&A	1,918	1,918	1,918	3,886	1,971	2,546	2,525	2,340	3,592	1,918	1,918	1,918	1,918	1,918	1,918	1,918	1,918
Parking, citations, tolls-G&A										267	344	186	767	3,658	1,008		
Travel/Lodging	85	220	1,231		477	505	388	167								168	
Meals	35		261	58	516	946	579	588	1,057		750			599			
Entertainment	461	148	2,439	441	9	65	260	1,001	1,433	2,676	4,523	2,308	1,020	5,361	1,000	1,000	1,000
Finance Charges/Loan interest	3,972	3,315	3,457	4,938	5,968	4,123	4,010	5,134	4,315	2,763	1,648	1,536	718	591	666	579	431
Late Fees			116		1,037				147,989	62,719			4,028		358	246	
Taxes										560						1,283	
Contributions															1,000	50	50
Depreciation- G&A	498	498	824	498	715	498	606	498	498	482	482	482	512	708	708	708	708

Total	180,417	196,318	306,720	220,506	260,390	210,506	190,846	186,776	329,599	258,283	185,678	223,967	226,866	227,726	226,228	239,139	215,344
Sales Total	\$ 514,551	\$ 1,407,872	\$ 1,565,508	\$ 1,721,726	\$ 1,231,724	\$ 1,312,752	\$ 1,083,437	\$ 775,093	\$ 1,301,629	\$ 524,401	\$ 702,226	\$ 428,727	\$ 592,121	\$ 2,699,830	\$ 1,697,075	\$ 1,634,206	\$ 2,600,000
1250 Sales	\$ 313,150	\$ 625,647	\$ 883,148	\$ 1,324,666	\$ 1,231,913	\$ 980,478	\$ 1,062,242	\$ 692,013	\$ 967,444	\$ 507,739	\$ 702,226	\$ 419,708	\$ 221,056	\$ 233,853	\$ 271,416	\$ 505,595	\$ 1,200,000
less optional work:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 67,115	\$ 1,500	\$ 20,400	\$ 87,670	\$ 115,885	\$ 15,000	\$ -
Total 1250 Sales less optional	\$ 313,150	\$ 625,647	\$ 883,148	\$ 1,324,666	\$ 1,231,913	\$ 980,478	\$ 1,062,242	\$ 692,013	\$ 967,444	\$ 507,739	\$ 635,111	\$ 418,208	\$ 200,656	\$ 146,183	\$ 155,531	\$ 490,595	\$ 1,200,000
1250 percent of sales	61%	44%	56%	77%	100%	75%	98%	89%	74%	97%	90%	98%	34%	5%	9%	30%	65%
1250 percent of overhead	\$ 109,800	\$ 87,242	\$ 173,030	\$ 169,654	\$ 260,430	\$ 157,225	\$ 187,112	\$ 166,756	\$ 244,976	\$ 250,076	\$ 167,932	\$ 218,473	\$ 76,880	\$ 12,330	\$ 20,733	\$ 71,790	\$ 140,802

2,160,000  
 - 1,700,000  
 = 460,000  
 + 335,049  
 = 835,049

1,235,049  
 385,049  
 335,049  
 21%

PP #

	JANUARY 2010	FEBRUARY 2010	MARCH 2010	APRIL 2010	MAY 2010	JUNE 2010	JULY 2010	AUGUST 2010	SEPTEMBER 2010	OCTOBER 2010	NOVEMBER 2010	DECEMBER 2010	JANUARY 2011	FEBRUARY 2011	MARCH 2011	APRIL 2011	MAY 2011	
Closed jobs adjustments/write-offs	(17,135)		(21,862)		(6,765)	(1,103)			91,353				62,754					PENDING
McAllister 1325J		250,704	421,177			159,848							59,251					
Mountain View			3,781															
Valencia/Ghlottl			30,000	30,000	(19,086)		56,195											
SFA 8517		20,680			300													
Divisadero 1063J	218,536	510,841	249,264	206,126	25,363	173,529	(35,000)		77,788									
JOC 1244																		162,172
SFMTA 1251													110,876	2,346,301	1,191,457			777,543
SFMTA 1250	313,150	625,647	883,148	1,324,666	1,231,913	980,478	1,062,242	692,013	1,072,488	507,739	702,226	419,708	221,056	233,853	371,416			505,595
JOC Recreation Park				160,934				83,080		16,662		9,019	138,183	119,596	134,199			188,896
A&B Market									60,000									
	514,551	1,407,873	1,565,508	1,721,727	1,231,725	1,312,752	1,083,437	775,093	1,301,629	524,401	702,226	428,727	592,121	2,699,830	1,697,072			1,634,206

TOTAL OVERHEAD TO 1250 JANUARY 2010 THROUGH HMAY 2011	\$ 2,515,239
TOTAL GROSS EARNED AMOUNT AS OF MAY 2011 (PP# 17)	\$ 11,278,309
Percent of Overhead	22.30%

## TREND NUMBERS 52, 65 AND 70

**SFMTA Contract No. 1251**  
 UNION SQUARE/MARKET STREET STATION  
 UTILITIES RELOCATION

**Contractor:** Synergy Project Management Inc.  
 30 Grant Street, Suite 300  
 San Francisco, CA 94108

### SUPPLEMENTAL CHANGE ANALYSIS (FOR CMB APPROVAL)

**SCOPE OF WORK:**

Trend 52: Reroute unforeseen existing waterline on discovered along Geary Street (east of Stockton Street).

Trend 65: Additional fittings for AWSS lateral and chipping of pole foundation at Market/Ellis Streets.

Trend 70: Core drill primary wall and install interior plumbing at Armani and Disney as required for the completion of fire service water cutover work.

**REASON FOR CHANGE:**

Trend 52: An unforeseen existing waterline was found to be in conflict with PG&E vault 573 and needed to be rerouted per City's response to RFI #182.

Trend 65: An existing Muni pole foundation is in the way of the AWSS lateral. Additional fittings are required to complete Contract work.

Trend 70: Existing fire service inside the building is a thin-wall steel pipe that extends out to the previously existing sub-sidewalk basement. The 1251 Contractor had backfilled the subsidewalk basement per contract, which now made the steel pipe susceptible to corrosion. The SFWD Inspector state that it was not acceptable to tie-in to the steel pipe due to corrosion issue plus the fact that the pipe is thin walled, which makes welding difficult. A suitable ductile iron pipe needed to be installed from the main into the building.

**COST SUMMARY TABLE:**

Trend Number:	Description of Additional Work Performed:	Contractor's Cost Proposal	Forecasted NTE Cost:	Trended Amount
52	Reroute unforeseen existing waterline on Geary east of Stockton	\$39,167.37	\$28,852.82	\$45,000.00
65	Additional fittings for AWSS lateral and chipping of pole foundation at Market/Ellis	\$43,855.89	\$21,779.12	\$20,000.00
70	Core drill primary wall and install interior plumbing at Armani and Disney for the fire service water cutover	\$14,033.67	\$14,033.67	\$20,959.35
<b>TOTAL</b>		<b>\$97,056.93</b>	<b>\$64,665.61</b>	<b>\$85,959.35</b>

**COST ANALYSIS:**

Each of the 18 FARs submitted by the Contractor was thoroughly reviewed by the SFMTA Resident Engineer. After this comprehensive review it was determined that the final value of these FARs will not exceed the \$64,665.61 total shown in the Cost Summary Table. Note that these final negotiations have not yet taken place therefore the 'Forecast NTE Cost' should not be considered a final agreed cost but rather a ceiling for future negotiations.

Approval of the NTE cost contained herein will allow the Resident Engineer to conduct final negotiations with the Contractor which in turn will facilitate the compilation and execution of a Contract Modification.

**SCHEDULE ANALYSIS:**

This work does not impact the Substantial Completion Date. There is no time adjustment associated with this Contract Modification.

**SUMMARY TABLE FOR TRENDS 52, 65 AND 70**

Differing Conditions Encountered During the Installation of SFWD Related Infrastructure  
SFMTA Central Subway Contract Number 1251 - Union Square/Market Street Station Utilities Relocation

Item #	Index #	FA #	Description	Synergy Requested Amount	SFMTA Current Approved Amount	Forecasted Final Amount
1	2.1.1	2321	Removal of 4" and 12" abandoned water line along Stockton and Maiden Lane	\$8,973.14	\$3,446.46	\$3,446.46
2	2.1.2	2373	SE corner Geary & Stockton - Demo & remove abandoned water valve & fittings not shown on contract documents.	\$1,861.07	\$1,463.21	\$1,463.21
3	2.1.3	3212	Vertical offset for new waterline over existing PG&E vault 467. (Stockton between Maiden Lane and Geary)	\$5,790.30	\$5,295.95	\$5,295.95
4	2.1.4	3230	Stockton/Geary - installation of LPWM (8") per direction of SFMTA.	\$6,704.81	\$5,374.15	\$5,374.15
5	2.1.5	3234	150 Stockton (north side) - installation of LPWM (8") per direction of SFMTA.	\$8,237.99	\$6,220.68	\$6,220.68
6	2.1.7	3237	Install new water line at north side of 150 Stockton	\$7,600.06	\$7,052.37	\$7,052.37
<b>Trend No. 52 Subtotal</b>				<b>\$39,167.37</b>	<b>\$28,852.82</b>	<b>\$28,852.82</b>
7	2.2.2	3296	Chip light pole base at corner of Market & Ellis for AWSS.	\$1,780.64	\$792.15	\$1,461.86
8	2.2.3	3306	Dig for changes on AWSS at the corner of Stockton and Ellis. Hydrant run.	\$5,932.66	\$3,484.97	\$3,484.97
9	2.2.4	3307	Dig/chip existing concrete structure for changes in AWSS hydrant run on Ellis and Market	\$5,471.88	\$3,306.18	\$3,306.18
10	2.2.5	3334	Demo of Bart pole foundation on the corenr of Ellis and Stockton. Foundation is not shown on drawings to be removed. In conflict with new water hydrant	\$5,029.45	\$3,787.58	\$3,787.58
11	2.2.6	3341	AWSS corner of Market/Stockton due to changes in AWSS hydrant configuration	\$8,299.37	\$2,858.13	\$2,858.13
12	2.2.8	3359	Installation of AWSS waterline on Ellis & Market. Change in AWSS design due to light pole conflicts.	\$5,036.89	\$473.94	\$473.94
13	2.2.9	3361	Install AWSS hydrant on Market/Ellis. Change in AWSS due to light base.	\$4,793.13	\$1,093.82	\$1,093.82
14	2.2.10	3363	Chip on newly installed PGE conduit damaged by SFWD while they installed water connection tie in on Geary West (NE Corner).	\$4,256.82	\$3,033.27	\$3,033.27
15	2.2.11	3395	Fix AWSS leak @ point of connection on Ellis St. Installation of AWSS line was different than shown on plans.	\$3,255.05	\$2,279.37	\$2,279.37
<b>Trend No. 65 Subtotal</b>				<b>\$43,855.89</b>	<b>\$21,109.41</b>	<b>\$21,779.12</b>
16	2.3.1	WPR #1	Works plumbing waterline installation work at The Disney Store (Estimate #80)	\$8,587.96	\$8,587.96	\$8,587.96
17	2.3.2	WPR #2	Works plumbing waterline installation work at The Disney Store (Estimate #80)	\$4,586.05	\$4,586.05	\$4,586.05
18	2.3.3	JJA	SFMTA estimate for coring work subcontracted to JJA	\$859.66	\$859.66	\$859.66
<b>Trend No. 70 Subtotal</b>				<b>\$14,033.67</b>	<b>\$14,033.67</b>	<b>\$14,033.67</b>



	Synergy Request Amount	SFMTA Current Approved Amount	Forecasted Final Amount
<i>Trend Numer 52 Subtotal</i>	\$39,167.37	\$28,852.82	\$28,852.82
<i>Trend Numer 65 Subtotal</i>	\$43,855.89	\$21,109.41	\$21,779.12
<i>Trend Numer 70 Subtotal</i>	\$14,033.67	\$14,033.67	\$14,033.67
<b>TOTAL CONTRACT MODIFCATION VALUE</b>	<b>\$97,056.93</b>	<b>\$63,995.90</b>	<b>\$64,665.61</b>

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

## EVALUATION OF MERIT

### COR 001

**Recommendation:** Accept justification of Merit for COR 001. The contract documents do not accurately depict the correct location of a water line which impacted the planned means and method of performing contract work associated with AWSS removal and relocation. Additional effort (labor and time) was required to accomplish the contract work.

**Facts:** An existing low pressure 12" Water line which runs west to east at the intersection of Fourth St. and Harrison St. is shown on contract drawing UT-501, Rev. 0 to be approximately 3' north of an existing 12" AWSS "T" fitting. During the excavation required for the contract AWSS removal and relocation work BIH's subcontractor, Synergy Project Management (Synergy or SPM), discovered that the existing water line was actually further south than was indicated in the drawings which positioned it almost directly above the AWSS "T" fitting or point of connection. Furthermore, because the water line was farther south than was expected it was placed in close proximity to an existing electrical duct bank.

**Rationale for COR:** SPM's original means and methods relied on excavating a tunnel from both sides of the existing duct bank to access the AWSS "T." Due to the close proximity of the existing water line to the duct bank, excavation could only be performed from one side thus increasing the amount of time spent on excavating around the AWSS fittings. Also because the water line was located closely above the existing AWSS point of connection additional time was spent removing the existing AWSS fittings and installing the new AWSS fittings required for the work.


**Justification:** BIH justification for the COR is that the actual location of the water line impacted the original means and methods making it more difficult to perform the AWSS contract work; "Synergy's crew spent additional time excavating material surrounding the AWSS "T" fitting because their originally assumed means and methods couldn't be implemented. Synergy's crew also spent additional time removing existing AWSS fittings and installing and restraining new AWSS fittings."

Note: this COR also relates to a time impact analysis which has been received under cover of COR 008.

By:

  
Sarah Wilson  
Resident Engineer

10/10/12  
Date

  
Configuration Management Board  
Approval

10/10/12  
Date



# BARNARD IMPREGILO HEALY JOINT VENTURE

420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822

## PRELIMINARY CHANGE ORDER REQUEST FORM

Third Street Lightrail Program Phase 2 - Central Subway Project  
CONTRACT 1252

9/5/2012

**COR 1: AWSS Conflict with Low Pressure Water at Harrison**

**DIRECT COST IMPACTS:**

COR #001 submitted on 8/13/2012 had a total direct cost impact equal to \$16,906.56. See the COR package for details of all direct costs.

**TIME IMPACTS:**

Time impacts pertaining to this COR are captured in the COR #008 package (TIA Summary for COR's 001, 002 and 003).

**WHAT (DESCRIPTION OF COR):**

SPM spent an additional 3 days to install the AWSS line in the Harrison intersection due to conflicts with the low pressure water line at the Tee on Harrison. This existing 12" water line was not shown in this location on the base contract drawings but over 4 feet to the South. As a result of this differing condition, Synergy spent an additional 2 days to excavate, demo, and tunnel to get to the point of connection and 1 additional day to install the pipe and make the connection beyond what it would have had to spend had this unknown conflict not occurred. Furthermore, this differing condition caused Synergy to have to excavate under x2 existing duct banks around 8-10 feet with 100% of the excavation from one side by hand due to the existing water line conflict. Had the line not been in conflict with the excavation, SPM could have excavated 50% of the tunneling work from the North side of the duct bank and 50% from the South side with an excavator instead of by hand, greatly increasing SPM's production. As a result of these conflicts, SPM wrote RFI's about the conflict as it is required to do in the specifications, notifying and requesting information about how to proceed. Furthermore, in an effort to mitigate any time delay, Synergy shifted its crews to work on the Sewer line while approval to proceed with the work was given by the designer. However, having Synergy's workers have excavate, demo, and install this work under this unforeseen pipe making the Plumbers and Labors have to crawl on there belly's to get to the work to install the bolts, rods, and pipe would not have been required had this differing condition not occurred.

**WHY (REASON FOR COR):**

This change in our Means and Ways of doing the work caused SPM to spend an additional 3 day to do the work and is quantified in this COR. The line encountered was not as shown on the contract drawings at time of bid and constitutes a differing and unforeseen site condition.

**WHERE (LOCATION/STATION):**

4th & Harrison

**WHEN (OCCURRENCE DATE, ACTION DATE):**

This occurred during multiple days throughout the middle of April 2012

**HOW (RECOMMENDATION OF ACTION):**

Work proceeded as described in the "What (description of COR)" above. SPM wrote RFIs in regards to this conflict and proceeded to do the work while shifting crews to work on the 42" sewer line nearby in order to mitigate any time delays. FA tag #4063 has been included in this COR per a meeting with inspector Bill Hawk on 6/22/12.

SPEC REF:

33 11 20

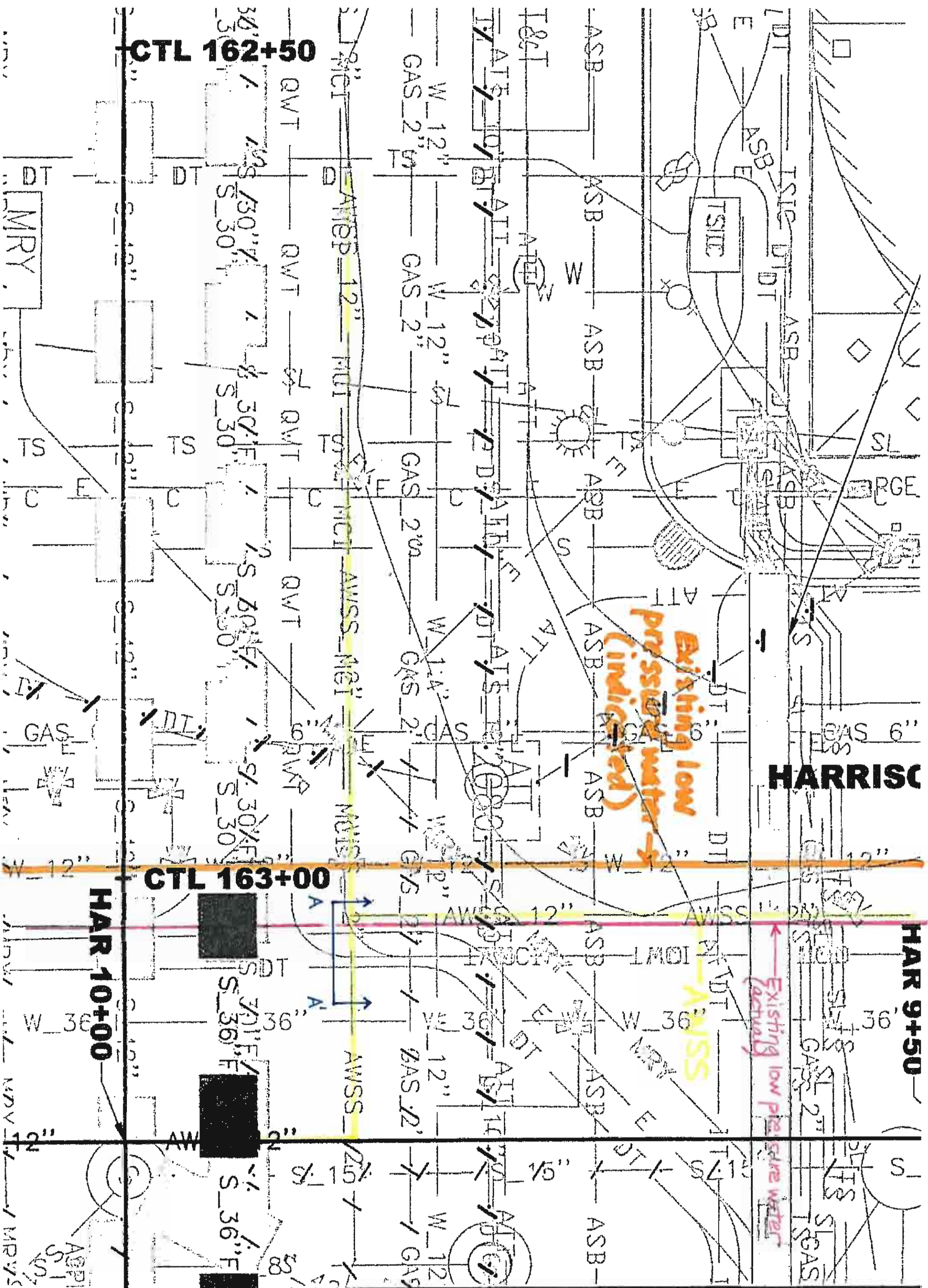
APPLICABLE DRAWINGS:

UT-501, AW-501.12

PREPARED BY:

Jack Switsky Engineer Date 9/5/12  
Contractor's Representative (Name, Title)

From  
UT-501  
Rev. 0



CH LINE

HARRISC

CTL 162+50

CTL 163+00

HAR 9+50

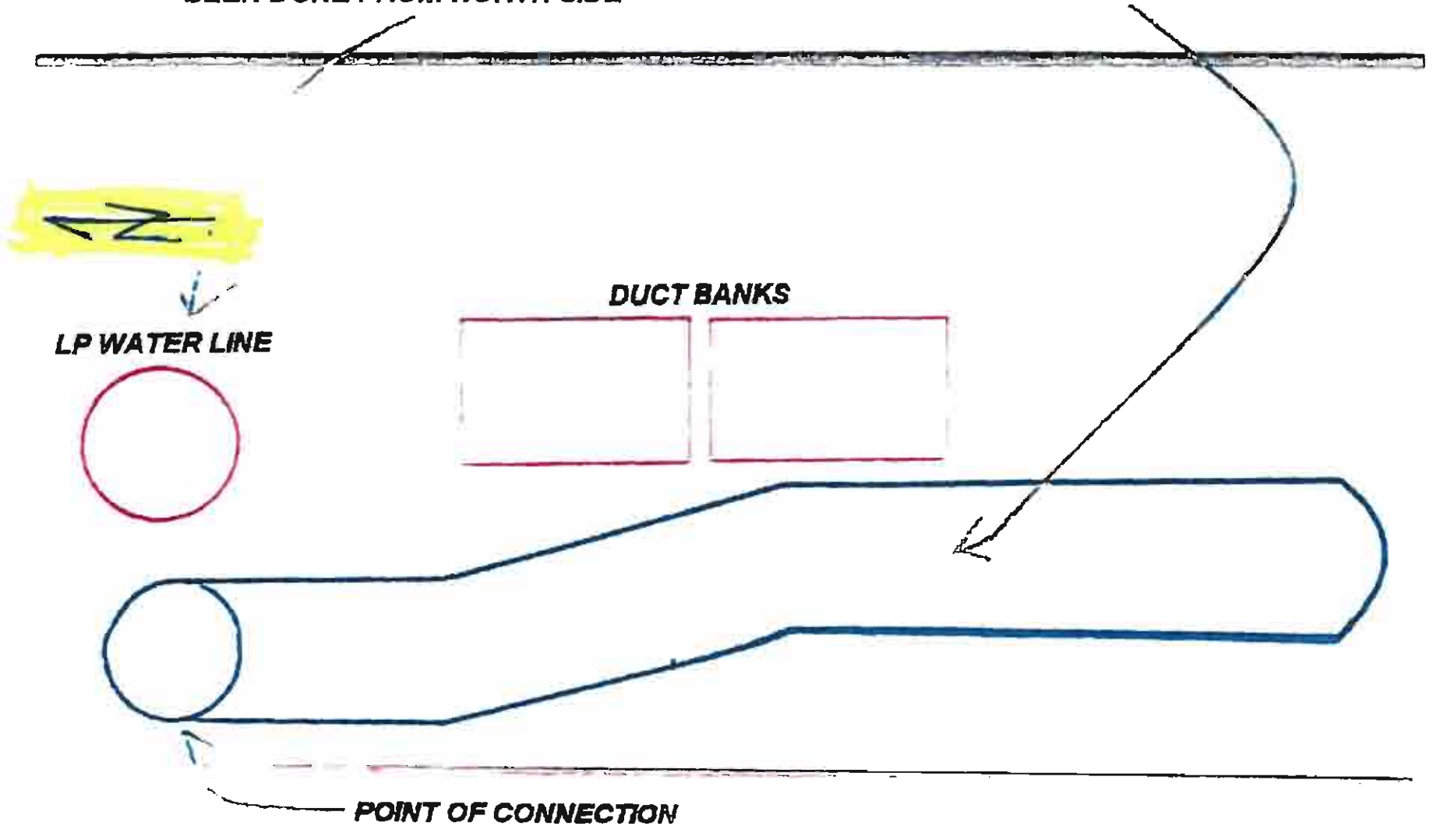
HAR 10+00

A

IF WATER WAS NOT IN CONFLICT,  
50% OF EXCAVATION COULD HAVE  
BEEN DONE FROM NORTH SIDE

A'

100% OF EXCAVATION HAD  
TO BE DONE FROM ONE SIDE



LP WATER LINE

DUCT BANKS

POINT OF CONNECTION



# Hill International

Change Order Request - 001

10/9/2012

COR 001

No.	Activity Name	Days (C)	Days (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)
Labor	1 Excavate and tunnel by hand	1	1	\$ 3,059.00	\$ 1,664.99	\$ (1,394.01)
	2 4/11/12 Chip Thrust Post	0.25	0.25	\$ 765.00	\$ 655.77	\$ (109.23)
	3 Demo AWSS	1	0.25	\$ 3,059.00	\$ 655.77	\$ (2,403.23)
	4 Install new AWSS	1	0.25	\$ 3,059.00	\$ 655.77	\$ (2,403.23)
	5 Activity Name	0	0	\$ -	\$ -	\$ -
	6 Activity Name	0	0	\$ -	\$ -	\$ -
	7 Activity Name	0	0	\$ -	\$ -	\$ -
	8 Activity Name	0	0	\$ -	\$ -	\$ -
	9 Activity Name	0	0	\$ -	\$ -	\$ -
	10 Activity Name	0	0	\$ -	\$ -	\$ -
	11 Activity Name	0	0	\$ -	\$ -	\$ -
	12 Activity Name	0	0	\$ -	\$ -	\$ -
Equipment	1 Excavate and tunnel by hand	1	1	\$ 2,820.00	\$ 2,651.84	\$ (168.16)
	2 4/11/12 Chip Thrust Post	0.25	0.25	\$ 701.00	\$ 734.20	\$ 33.20
	3 Demo AWSS	1	0.25	\$ 2,820.00	\$ 662.96	\$ (2,157.04)
	4 Install new AWSS	1	0.25	\$ 2,820.00	\$ 662.96	\$ (2,157.04)
	5 Activity Name	0	0	\$ -	\$ -	\$ -
	6 Activity Name	0	0	\$ -	\$ -	\$ -
	7 Activity Name	0	0	\$ -	\$ -	\$ -
	8 Activity Name	0	0	\$ -	\$ -	\$ -
	9 Activity Name	0	0	\$ -	\$ -	\$ -
	10 Activity Name	0	0	\$ -	\$ -	\$ -
	11 Activity Name	0	0	\$ -	\$ -	\$ -
	12 Activity Name	0	0	\$ -	\$ -	\$ -
<b>Material</b>				\$ -	\$ -	
<b>Markup LM&amp;E - 15%</b>				\$ 2,865.45	\$ 1,251.64	
<b>2nd Tier Subs</b>				\$ -	\$ -	
<b>Markup - 5%</b>				\$ -	\$ -	
<b>Sub. Bond/Insurance 2.14%</b>				\$ 470.12	\$ 205.35	
<b>Prime Markup - 5%</b>				\$ 1,121.93	\$ 490.06	
<b>Prime Bond/Insurance 1.68%</b>				\$ 395.82	\$ 172.89	
<b>Total</b>				\$ 23,956.32	\$ 10,464.20	\$ (13,492.12)

## Summary of Differences:

- Durations are different for 3 of 4 activities.
- Additional duration needed for working in a confined space is shown as 2hrs each for the demolition and installation of the AWSS in question. This is based on the opinion that an additional day will not be need strictly for working in a confined space. Claiming that the workers production will be half of what if would typically be under as bid conditions would need more back up.
- 1 CMS removed as two are not need for an intersection. Typical traffic control being used at an intersection for engineer's estimate can be seen on the detailed estimate.



# Hill International

Change Order Request - 001  
10/9/2012

No.	Activity	Days	Hourly rates:							Labor totals	Equipment Rates										Equipment Totals		
			\$ 53.54	\$ 71.98	\$ 95.29	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00		\$ 33.12	\$ 33.12	\$ 35.62	\$ 66.43	\$ 63.79	\$ 9.92	\$ 3.20	\$ 7.29	\$ 4.07	\$ 9.48		\$ 2.17	
			Laborer (G1)*	Operating Engineer (OE) (G3)*	Plumber Utility Pipe Fitter	Labor Resource	Labor Resource	Labor Resource	Labor Resource		Work Truck	Work Truck	Air compressor, hoses & hammer total	Dump truck - 3-axle	Mini Excavator (Kubota U45)	Changeable Message Boards	Arrow Board	Construction Signs	Interlocking Water Filled Triton Barrier	Total per Plate (small)	Total per trench shore		
1	Excavate and tunnel by hand	1	3	0.66	0					\$ 1,664.99	1	1		1	1	1	2	2	12	4	8	\$ 2,651.84	
2	4/11/12 Chip Thrust Post	0.25	3	1	1					\$ 655.77	1	1	1	1	1	1	2	2	12	4	8	\$ 734.20	
3	Demo AWSS	0.25	3	1	1					\$ 655.77	1	1		1	1	1	2	2	12	4	8	\$ 662.96	
4	Install new AWSS	0.25	3	1	1					\$ 655.77	1	1		1	1	1	2	2	12	4	8	\$ 662.96	
5	Activity Name																						
6	Activity Name																						
7	Activity Name																						
8	Activity Name																						
9	Activity Name																						
10	Activity Name																						
11	Activity Name																						
12	Activity Name																						
13	<b>Total</b>									\$ 3,632.29													\$ 4,711.96

Labor	\$ 3,632.29
Material	\$ -
Equipment	\$ 4,711.96
2nd Tier Sub	\$ -
Markup on 2nd Tier Sub - 5%	\$ -
1st Tier Sub OH&P - 15%	\$ 1,251.64
1st Tier Sub Bond/Insurance - 2.14%	\$ 205.35
Prime - Markup - 5%	\$ 490.06
Prime - Bond/Insurance - 1.68%	\$ 172.89
<b>Total Amount</b>	<b>\$ 10,464.20</b>

**Assumptions:**

- Additional one day provided for unexpected hand excavation of approximately 5.4 bcy at a production rate of ~6 bcy/day
- Additional two hours provided for the demo and install each of the AWSS for working in a confined space
- Chipping of the thrust post may have been foreseeable therefore inclusion in COR 001 has yet to be decided

Shift Duration: 8hrs

Estimated By: *Ken Barnhart*

Checked By: *Charles E. Dombranski*







# Hill International

Change Order Request - 001  
10/9/2012

Prevailing Labor Rates - SF											
		Social Security	Medicare	FUTA	SUTA	SF Pay	WC	Vacation/Holiday	Other Fringes		
		6.20%	1.45%	0.60%	6.20%	1.50%	12.00%				Fully Burdened
Labor Resource											0
Carpenter	\$ 38.50	\$ 2.64	\$ 0.62	\$ 0.26	\$ 2.64	\$ 0.64	\$ 5.11	\$ 4.05	\$ 21.77	\$	\$ 76.21
Cement Mason	\$ 28.65	\$ 2.09	\$ 0.49	\$ 0.20	\$ 2.09	\$ 0.51	\$ 4.05	\$ 5.14	\$ 16.82	\$	\$ 60.05
Electrician (Inside Wireman)	\$ 54.87	\$ 3.72	\$ 0.87	\$ 0.36	\$ 3.72	\$ 0.90	\$ 7.20	\$ 1.64	\$ 23.95	\$	\$ 97.23
Flag Person	\$ 26.89	\$ 1.82	\$ 0.43	\$ 0.18	\$ 1.82	\$ 0.44	\$ 3.52	\$ 2.48	\$ 14.62	\$	\$ 52.20
Iron Worker	\$ 33.00	\$ 2.29	\$ 0.54	\$ 0.22	\$ 2.29	\$ 0.55	\$ 4.43	\$ 3.92	\$ 21.37	\$	\$ 68.60
Laborer (G1)*	\$ 26.89	\$ 1.82	\$ 0.43	\$ 0.18	\$ 1.82	\$ 0.44	\$ 3.52	\$ 2.48	\$ 15.96	\$	\$ 53.54
Laborer (G2)	\$ 26.99	\$ 1.83	\$ 0.43	\$ 0.18	\$ 1.83	\$ 0.44	\$ 3.54	\$ 2.48	\$ 15.96	\$	\$ 53.67
Operating Engineer (OE) (G2)	\$ 36.24	\$ 2.48	\$ 0.58	\$ 0.24	\$ 2.48	\$ 0.60	\$ 4.79	\$ 3.70	\$ 22.77	\$	\$ 73.87
Operating Engineer (OE) (G3)*	\$ 34.76	\$ 2.38	\$ 0.56	\$ 0.23	\$ 2.38	\$ 0.58	\$ 4.62	\$ 3.70	\$ 22.77	\$	\$ 71.98
Pile Driver (PD) (G2)	\$ 37.17	\$ 2.53	\$ 0.59	\$ 0.25	\$ 2.53	\$ 0.61	\$ 4.90	\$ 3.70	\$ 22.77	\$	\$ 75.06
Plumber Utility Pipe Fitter	\$ 51.00	\$ 3.18	\$ 0.74	\$ 0.31	\$ 3.18	\$ 0.77	\$ 6.16	\$ 0.30	\$ 29.65	\$	\$ 95.29
Teamster	\$ 27.43	\$ 1.83	\$ 0.43	\$ 0.18	\$ 1.83	\$ 0.44	\$ 3.55	\$ 2.15	\$ 20.42	\$	\$ 58.27
Traffic Control Person I	\$ 27.19	\$ 1.84	\$ 0.43	\$ 0.18	\$ 1.84	\$ 0.45	\$ 3.56	\$ 2.48	\$ 14.62	\$	\$ 52.58
Traffic Control Person II	\$ 24.69	\$ 1.68	\$ 0.39	\$ 0.16	\$ 1.68	\$ 0.41	\$ 3.26	\$ 2.48	\$ 14.62	\$	\$ 49.38
Scaffold / Shoring Erector	\$ 38.65	\$ 2.65	\$ 0.62	\$ 0.26	\$ 2.65	\$ 0.64	\$ 5.12	\$ 4.05	\$ 21.77	\$	\$ 76.40
Elevator Mechanic/Constructor	\$ 57.29	\$ 3.77	\$ 0.88	\$ 0.36	\$ 3.77	\$ 0.91	\$ 7.29	\$ 3.44	\$ 23.84	\$	\$ 101.54
Elevator Mechanic Helper	\$ 40.10	\$ 2.70	\$ 0.63	\$ 0.26	\$ 2.70	\$ 0.65	\$ 5.22	\$ 3.44	\$ 23.84	\$	\$ 79.54
Asbestos Removal Specialist II	\$ 24.87	\$ 1.67	\$ 0.39	\$ 0.16	\$ 1.67	\$ 0.40	\$ 3.23	\$ 2.02	\$ 10.53	\$	\$ 44.94
Lead Removal Worker	\$ 36.25	\$ 2.36	\$ 0.55	\$ 0.23	\$ 2.36	\$ 0.57	\$ 4.57	\$ 1.85	\$ 6.09	\$	\$ 54.84

Client: SFMTA  
Hill Project Number: PNN-01219.01  
CN 1252 - Tunnel  
Change Order Request No. 001  
Engineer's Estimate



# Hill International

Change Order Request - 001  
10/9/2012

Equipment	Caltrans Page No	CalTrans Category Sub-Category Rental Quote/ Code	Hourly Rate	Delay Factor	Standby Rate
Equipment			\$ -		
1 Work Truck	34	TRUCK	\$ 33.12	0.14	\$ 4.64
2 Dump truck - 3-axle	34	TRUON	\$ 66.43	0.16	\$ 10.63
3 Tow Behind Trailer	33	TRAIT	\$ 5.72	0.42	\$ 2.40
4 End Dump - 5-axle	34	TRUON	\$ 83.50	0.16	\$ 13.36
5 Generator	6	ELGEN	\$ 14.18	0.11	\$ 1.56
6 Air Compressor	1	AIRCP	\$ 34.31	0.12	\$ 4.12
60-90 Lb. Jack-hammer	1	AIRTOL	\$ 1.31	0.61	\$ 0.80
<b>Air compressor, hoses &amp; hammer total</b>			<b>\$ 35.62</b>		<b>\$ 4.92</b>
7 Arc Welder	34	WELD	\$ 11.87	0.18	\$ 2.14
Welding Rods	N/A	N/A	\$ 5.34		\$ -
F250	34	TRUCK	\$ 33.12	0.14	\$ 4.64
<b>Welder and Truck</b>			<b>\$ 50.33</b>		<b>\$ 6.77</b>
8 Torches and Tanks	34	WELD	\$ 0.24	0.18	\$ 0.04
Oxygen Tank and Acetylene Tank	N/A	N/A	\$ 38.70		\$ -
<b>Total Torches and Tanks</b>			<b>\$ 38.94</b>		<b>\$ 0.04</b>
9 Rotohammer	6	ELTOL	\$ 0.44	0.61	\$ 0.27
Generator	6	ELGEN	\$ 14.18	0.11	\$ 1.56
<b>Rotohammer and Generator</b>			<b>\$ 14.62</b>		<b>\$ 1.83</b>
10 Rivet Buster	1	AIRTOL	\$ 1.31	0.61	\$ 0.80
Air Compressor	1	AIRCP	\$ 34.31	0.12	\$ 4.12
<b>Rivet Buster and Air Compressor</b>			<b>\$ 35.62</b>		<b>\$ 4.92</b>
11 Compactor, Hand Guided	4	COMHG	\$ 8.82	0.18	\$ 1.59
12 Bobcat 763	31	TRACS	\$ 25.35	0.11	\$ 2.79
13 Backhoe (John Deere ID 310G)	18	LDDRT	\$ 62.87	0.12	\$ 7.54
Clam Shell Bucket	1	N/A	\$ 9.29	0.12	\$ 1.11
<b>Backhoe w/ Clam Shell total</b>			<b>\$ 72.16</b>		<b>\$ 8.66</b>

Client: SFMTA  
 Hill Project Number: PNN-01219.01  
 CN 1252 - Tunnel  
 Change Order Request No. 001  
 Engineer's Estimate



# Hill International

Change Order Request - 001  
 10/9/2012

14 Breaker attachment for Backhoe	7 HAMMR	\$ 42.26	0.23	\$ 9.72
15 Mini Excavator (Kubota U45)	N/A N/A	\$ 63.79	0.18	\$ 11.48
16 Excavator (Hitachi 200)	N/A N/A	\$ 142.51	0.18	\$ 25.65
17 New Holland Excavator (E135)	N/A N/A	\$ 120.13	0.18	\$ 21.62
18 Ride-on Sweeper	4 BRMSW	\$ 145.11	0.14	\$ 20.32
19 Bituminous Distributor	4 BITDT	\$ 6.52	0.14	\$ 0.91
Work truck	33 TRUCK	\$ 33.12	0.14	\$ 4.64
<b>Bituminous Distributor with truck</b>		<b>\$ 39.64</b>		<b>\$ 5.55</b>
20 Fork Lift Truck	6 FKLFT	\$ 27.14	0.20	\$ 5.43
21 Concrete Saw	28 SAWCO	\$ 19.63	0.14	\$ 2.75
Saw blade 12" x \$18 per hour (100 LF)	28 SAWCO	\$ 216.00	0.14	\$ 30.24
Concrete Saw and Blade		\$ 235.63		\$ 32.99
22 Water Pump	22 PUMWA	\$ 22.61	0.35	\$ 7.91
<b>23 Confined Space Equipment</b>				
Gas Detector 4-Gas w/ Motorized Integral Pump		\$22.79		
Blower Portable w/ 8"x15' Hose		\$8.82		
Retrieval 65' Winch for Tripod SCBA-NFPA Approved 2216 PSI Complete alrpeck		\$11.53		
		\$9.03		
<b>Total Confined Space</b>		<b>\$52.15</b>		
24 Traffic Control (per street, intersection = x2 streets)				
Construction Signs	32 TR AFC	\$7.29		
Changeable Message Boards	32 TR AFA	\$9.92		
Arrow Board	32 TR AFA	\$3.20		
No Parking Signs (A-frames)	32 TR AFC	\$0.22		
Cones (per 100)	32 TR AFC	\$13.27		
25 Interlocking Water Filled Triton Barrier	N/A N/A	\$4.07		
\$30 per day /8 plus tax				
26 Traffic Plates Installed				
Total per Plate (small)	N/A N/A	\$9.48		
Total per Plate (large)	N/A N/A	\$12.15		
27 Trench Shoring (4' wide trends)		\$4.34		
Total per trench shore		\$2.17		

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

## EVALUATION of MERIT

### COR 002

**Recommendation:** Accept justification of merit for COR 002. SFMTA directed the additional work to restrain the AWSS line, not contained in contract documents.

**Facts:** During excavation for contract work, AWSS relocation, at the intersection of Fourth and Harrison Street, BIH's subcontractor Synergy Project Management (SPM) uncovered a section of pipe north of the AWSS "T" fitting which was unrestrained and badly rusted, not conforming to current code.

**Rationale for COR:** SFMTA issued a response to RFI 56 directing the Contractor to restrain the AWSS pipe. The RFI response prepared by Michael Smith of the San Francisco Department of Public Works stated: "Added 04/18/12: Following confirmation after SFDPW field inspection of exposed AWSS line, 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." Additional details of the connections were then provided by SFMTA for Contractor to execute the work.


**Justification:** The following activities were required to be performed in order to install the new restraining materials: roadway surface demolition, soil excavation, utility demolition, installation of new AWSS piping, hydrostatic testing, backfill and compaction, restoration and traffic control devices.

Note: this COR also relates to a time impact analysis which has been received under cover of COR 008.

By:

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

10/10/12  
Date

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

10/10/12  
Date



# BARNARD IMPREGILO HEALY JOINT VENTURE

420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822

## PRELIMINARY CHANGE ORDER REQUEST FORM

Third Street Lightrail Program Phase 2 - Central Subway Project  
CONTRACT 1252

9/5/2012

### COR 2: Additional AWSS restraining @ 4th & Harrison

**DIRECT COST IMPACTS:**

COR #002 submitted on 8/14/2012 had a total direct cost impact equal to \$58,444.22. See the COR package for details of all direct costs.

**TIME IMPACTS:**

Time impacts pertaining to this COR are captured in the COR #008 package (TIA Summary for COR's 001, 002 and 003.

**WHAT (DESCRIPTION OF COR):**

Additional AWSS work that was required by M. Smith from the Water department. This work consisted of approximately x12 stainless steel restraint rods, several glands, a custom cut nipple, several bell and stop collars and an additional 23' of 12" High Pressure DIP to be added to the AWSS line on 4th and Harrison.

**WHY (REASON FOR COR):**

This was work that was requested by M. Smith from the Water Department. SFMTA asked SPM to track it on force account in order to proceed quickly since the work was on the critical path.

**WHERE (LOCATION/STATION):**

4th & Harrison

**WHEN (OCCURRENCE DATE, ACTION DATE):**

The work began on April 13, 2012 and proceeded until pavement restoration on May 16, 2012.

**HOW (RECOMMENDATION OF ACTION):**

The work was on the critical path and in an effort to start the work without any delay, the MTA asked that this work be tracked on Force Account tags and that a fully executed change order would be processed in 1-2 months. However, the change order work was installed at the same time as base contract pipe with workers jumping between the added scope and base contract scope, and as a result, there were several items of work that got missed on the Force Account tags. In so much as this work was done and can be verified by the SFMTA inspectors or with daily photos, this change order has included the true and complete cost of the additional work and not just what was on the Force Account Tags. Some examples of what was not included is the welding work, some installation time, and the testing time. In addition to these items, all equipment that was used and shown on the photos are included as part of this COR. Lastly, any plates or shoring that were in use on the base contract AWSS installation and had to remain in place during the time that the added AWSS work was done have also been included in this COR in that Synergy could not backfill any part of the AWSS until the COR work was complete and the entire line was tested. This COR has excluded any delay costs on the balance of the project site and has been instructed by BIH to include these costs in another COR along with a Time Impact breakdown.

SPEC REF: 33 11 20  
APPLICABLE DRAWINGS: AW-501.12

PREPARED BY:

*Jack Switsky*  
Contractor's Representative (Name, Title)

9/5/12  
Date

# Barnard Impregilo Healy JV

## REQUEST FOR INFORMATION

No. 00056

PO BOX 78270  
San Francisco, CA 94107

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

**TITLE:** AWSS utility conflict: Harrison/4th

**DATE:** 4/11/2012

**PROJECT:** Contract 1252 - Tunnels

**JOB:** 221

**TO:** Attn: Sarah H. Wilson  
SF Municipal Transportation Agency  
821 Howard Street  
San Francisco, CA 94103  
Phone: (415) 701-4299 Fax: (415) 701-5222

**STARTED:**  
**COMPLETED:**  
**REQUIRED:** 4/18/2012

### QUESTION:

It was discovered that the existing AWSS "T" fitting shown on contract drawing AW-501.12 is in conflict with an existing 12" water line. The water line, which is shown to be located 3 feet away on contract drawing UT-501 is actually only 2-3 inches away and does not provide adequate space needed for the tie-in work to the existing AWSS "T" fitting required by drawing AW-501.12. Synergy is not physically capable of gaining access to the tie rod bolts required to tighten the mechanical joint fittings at this location. Synergy's workers have already had to undermine the existing 12" water utility just to examine the utility conflict and can't continue the installation of new AWSS fittings. Synergy has removed the existing lead joint pipe and recommends leaving the ductile iron pipe intact and installing new tie rods between the new 90 degree elbow and the existing "T" fitting. Also, the existing thrust block was poured in such a way that it is covering a portion of the existing "T" fitting and will need to be chipped away in order to install the new tie rods. Can the SFMTA direct us how to proceed?

Requested By: Barnard Impregilo Healy JV

Date: 4/11/2012

Signed: 

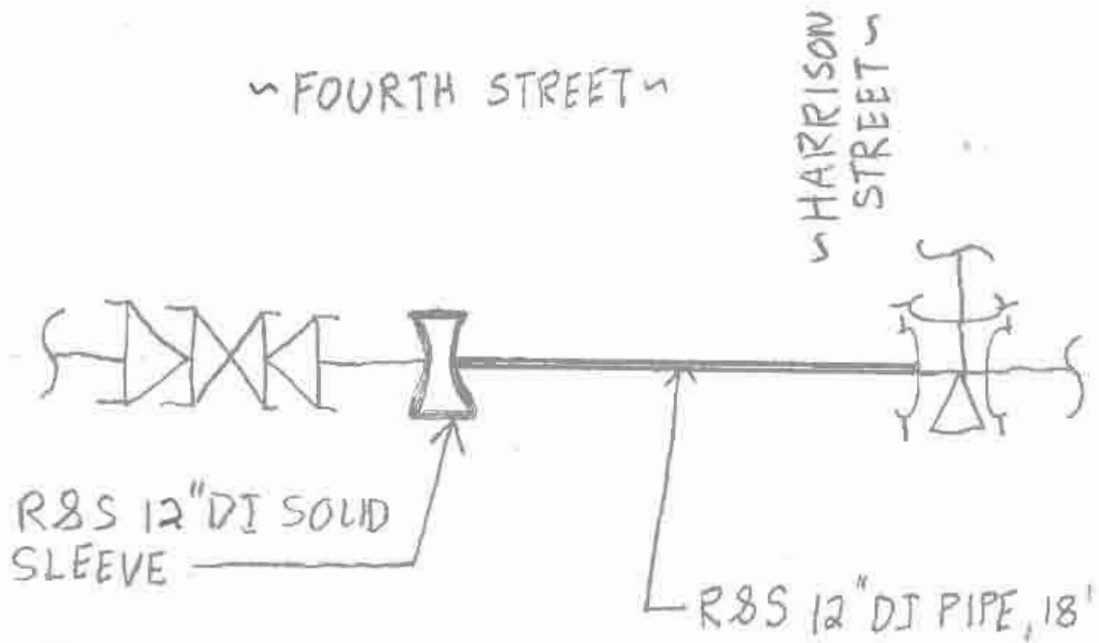
Ben Campbell



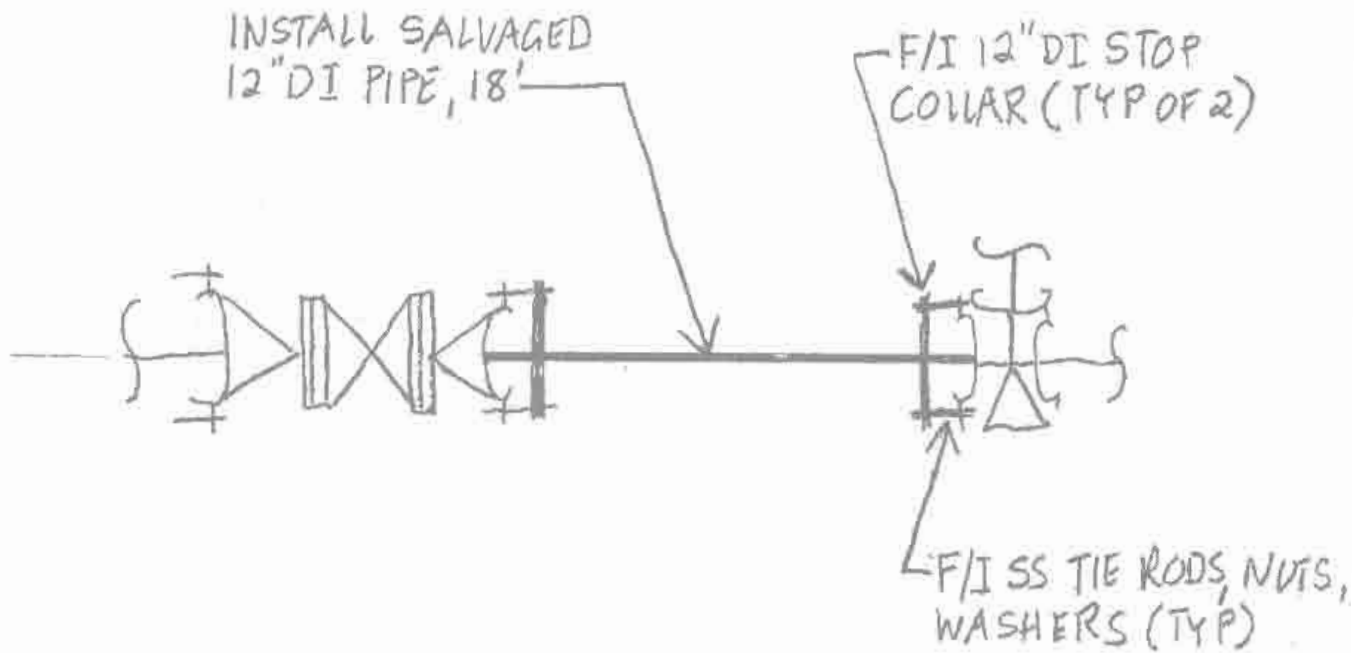








REMOVAL WORK-PLAN



NEW WORK-PLAN

REF DWGS 1424J-CONTRACT 3  
NO. AW-501.5 AND AW-501.12

MICHAEL B. SMITH  
SFDPW/IDC/EME 04/20/12



# Hill International

Change Order Request - 002  
10/9/2012

## COR 002

No.	Activity Name	Days (C)	Days (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)
Labor	1 04/13/12 Traffic control for MTA to inspect tee	0.38	0.375	\$ 1,099.00	\$ 160.62	\$ (938.38)
	2 04/18/12 Sawcut/remove AC roadbase	0.63	0.625	\$ 1,822.00	\$ 1,639.42	\$ (182.58)
	3 04/19/12 Excavate	1	1	\$ 2,892.00	\$ 2,623.08	\$ (268.92)
	4 04/24/12 Get added materials	0.38	0	\$ 593.00	\$ -	\$ (593.00)
	5 04/26/12 Remove conc from MUNI conduits	0.88	0.875	\$ 625.00	\$ 626.06	\$ 1.06
	6 04/30/12 Excavate to top of pipe	0.5	0.5	\$ 869.00	\$ 787.32	\$ (81.68)
	7 05/01/12 Excavate	1	1	\$ 1,498.00	\$ 1,358.70	\$ (139.30)
	8 05/02/12 Install AWSS	0.5	0.5	\$ 1,027.00	\$ 930.39	\$ (96.61)
	9 05/07/12 Backfill	0.25	0.25	\$ 605.00	\$ 465.19	\$ (139.81)
	10 05/11/12 Backfill	0.25	0.25	\$ 513.00	\$ 465.19	\$ (47.81)
	11 05/16/12 Restore Pavement	0.25	0.25	\$ 513.00	\$ 465.19	\$ (47.81)
	12 Support Welder	1.5	0	\$ 1,462.00	\$ -	\$ (1,462.00)
	13 05/03/12 Install AWSS	1	0.5	\$ 2,892.00	\$ 930.39	\$ (1,961.61)
	14 05/04/12 Additional testing line pressure	0.25	0.25	\$ 723.00	\$ 655.77	\$ (67.23)
	15 05/04/12 Additional testing full pressure	0.25	0.25	\$ 723.00	\$ 655.77	\$ (67.23)
	16 05/08/12 Backfill	0.38	0.38	\$ 908.00	\$ 707.09	\$ (200.91)
Equipment	1 04/13/12 Traffic control for MTA to inspect tee	0.38	0.375	\$ 1,552.00	\$ 214.80	\$ (1,337.20)
	2 04/18/12 Sawcut/remove AC roadbase	0.63	0.625	\$ 2,824.00	\$ 1,831.86	\$ (992.15)
	3 04/19/12 Excavate	1	1	\$ 3,525.00	\$ 2,605.90	\$ (919.11)
	4 04/24/12 Get added materials	0.38	0	\$ 544.00	\$ -	\$ (544.00)
	5 04/26/12 Remove conc from MUNI conduits	0.88	0.875	\$ 1,282.00	\$ 617.15	\$ (664.85)
	6 04/30/12 Excavate to top of pipe	0.5	0.5	\$ 770.00	\$ 1,048.94	\$ 278.94
	7 05/01/12 Excavate	1	1	\$ 2,095.00	\$ 2,386.62	\$ 291.62
	8 05/02/12 Install AWSS	0.5	0.5	\$ 1,000.00	\$ 950.42	\$ (49.59)
	9 05/07/12 Backfill	0.25	0.25	\$ 793.00	\$ 681.62	\$ (111.39)
	10 05/11/12 Backfill	0.25	0.25	\$ 564.00	\$ 700.58	\$ 136.58
	11 05/16/12 Restore Pavement	0.25	0.25	\$ 407.00	\$ 591.22	\$ 184.22
	12 Support Welder	1.5	0	\$ 581.00	\$ -	\$ (581.00)
	13 05/03/12 Install AWSS	1	0.5	\$ 2,099.00	\$ 1,064.18	\$ (1,034.83)
	14 05/04/12 Additional testing line pressure	0.25	0.25	\$ 699.00	\$ 669.98	\$ (29.02)
	15 05/04/12 Additional testing full pressure	0.25	0.25	\$ 699.00	\$ 669.98	\$ (29.02)
	16 05/08/12 Backfill	0.38	0.38	\$ 1,005.00	\$ 634.17	\$ (370.83)
Material				\$ 6,009.73	\$ 6,131.19	
Markup LM&E - 15%				\$ 6,781.91	\$ 4,990.31	
2nd Tier Subs				\$ 1,480.00	\$ 1,480.00	
Markup - 5%				\$ 74.00	\$ 74.00	
Sub. Bond/Insurance 2.14%				\$ 1,145.94	\$ 852.00	
Prime Markup - 5%				\$ 2,734.73	\$ 2,033.25	
Prime Bond/Insurance 1.68%				\$ 964.81	\$ 717.33	
<b>Total</b>				<b>\$ 58,394.12</b>	<b>\$ 43,415.62</b>	<b>\$ (14,978.50)</b>

**Summary of Differences:**

- Durations all match except activities No. 4, 12, 13
- Activities No. 4 and 12 do not fit into the scope of the detailed labor and equipment estimate.
- Activity No. 13 was adjusted in relation to the other "install AWSS" activity to create a total install AWSS duration of one day. This pertains to approximately 25LF of 12" Ductile Iron pipe.
- No standby time for equipment was included in this lump sum estimate where comparatively SPM added standby for equipment into their cost estimate.
- Total cost for activity No. 1 differs substantially because the Engineer's Estimate only addresses the traffic control devices and one laborer as the activity name implies. In contrast SPM included equipment and labor beyond the traffic control devices for the same activity.

Client: SFMTA  
 Hill Project Number: PNN-01219.01  
 CN 1252- Tunnel  
 Change Order Request No. 002  
 Engineer's Estimate



# Hill International

Change Order Request - 002  
 10/9/2012


No.	Activity	Days	Hourly rates:								Labor totals	Equipment Rates																Equipment Totals
			\$ 53.54	\$ 71.98	\$ 95.29	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 33.12		\$ 33.12	\$ 34.31	\$ 74.18	\$ 19.63	\$ 32.62	\$ 66.43	\$ 62.87	\$ 42.26	\$ 63.79	\$ 142.51	\$ 30.80	\$ 4.07	\$ 9.48	\$ 2.17	\$ 0.00		
			Laborer (G1)	Operating Engineer (OE) (G3)	Plumber Utility Pipe Fitter	Labor Resource	Labor Resource	Labor Resource	Labor Resource		Work Truck	Work Truck	Air Compressor	Generator	Concrete Saw	Pvmnt Roller	Dump truck - 3-axle	Backhoe (John Deere ID 310G)	Breaker attachment for Backhoe	Mini Excavator (Kubota U45)	Excavator (Hitachi 200)	Traffic Control (Intersection)	Interlocking Water Filled Triton Barrier	Total per Plate (small)	Total per trench shore	Equipment		
1	04/13/12 Traffic control for MTA to inspect tee	0.375	1							\$ 160.62												1	10					\$ 214.80
2	04/18/12 Sawcut/remove AC roadbase	0.625	3	1	1					\$ 1,639.42	1	1			1		1	1	1	1	0.10	1						\$ 1,831.86
3	04/19/12 Excavate	1	3	1	1					\$ 2,623.08	1	1					1				1	0.063	1	10	4	5		\$ 2,605.90
4	04/24/12 Get added materials	0								\$ -																		\$ -
5	04/26/12 Remove conc from MUNI conduits	0.875	1.286	0.286						\$ 626.06	0.29			1								0.071	1		2	2		\$ 617.15
6	04/30/12 Excavate to top of pipe	0.5	2.5	0.875						\$ 787.32	1						1				1	0.125	1	10	1			\$ 1,048.94
7	05/01/12 Excavate	1	2.5	0.5						\$ 1,358.70	0.5	1					1				1	0.063	1	10	4			\$ 2,386.62
8	05/02/12 Install AWSS	0.5	3	1						\$ 930.39	1	1									1	0.125	1	10	1	4		\$ 950.42
9	05/07/12 Backfill	0.25	3	1						\$ 465.19	1	1					1				1	0.25	1	10	3	4		\$ 681.62
10	05/11/12 Backfill	0.25	3	1						\$ 465.19	1	1					1				1	0.25	1	10	4	4		\$ 700.58
11	05/16/12 Restore Pavement	0.25	3	1						\$ 465.19	1	1				1	1				1	0.25	1					\$ 591.22
12	Support Welder	0								\$ -																		\$ -
13	05/03/12 Install AWSS	0.5	3	1						\$ 930.39	1	1									1	0.125	1	10	4	4		\$ 1,064.18
14	05/04/12 Additional testing line pressure	0.25	3	1	1					\$ 655.77	1	1	1	1			1					0.25	1	10	4	4		\$ 669.98
15	05/04/12 Additional testing full pressure	0.25	3	1	1					\$ 655.77	1	1	1	1			1					0.25	1	10	4	4		\$ 669.98
16	05/08/12 Backfill	0.38	3	1						\$ 707.09	1	1					1						1	10		2		\$ 634.17
17	Total									\$ 12,470.17																		\$ 14,667.37

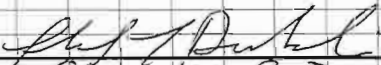
Labor	\$ 12,470.17
Material	\$ 6,131.19
Equipment	\$ 14,667.37
2nd Tier Sub	\$ 1,480.00
Markup on 2nd Tier Sub - 5%	\$ 74.00
1st Tier Sub OH&P - 15%	\$ 4,990.31
1st Tier Sub Bond/Insurance - 2.14%	\$ 852.00
Prime - Markup - 5%	\$ 2,033.25
Prime - Bond/Insurance - 1.68%	\$ 717.33
<b>Total Amount</b>	<b>\$ 43,415.62</b>

Assumptions:

- Traffic Control at intersection consists of 1CMS, 2 Arrow Boards, 6 Construction signs
- All material procurement and delivery is captured under 2% premium added on the materials summary sheet
- Hitachi 200 Excavator is used 30min per day to move temporary road decking

Shift Duration: 8hrs

Estimated By:   
 Ken Barnhart

Checked By:   
 Charles F. Dombrowski



Client: SFMTA  
 Hill Project Number: PNN-01219.01  
 CN 1252- Tunnel  
 Change Order Request No. 002  
 Engineer's Estimate



# Hill International

Change Order Request - 002  
 10/9/2012

Prevailing Labor Rates - SF										
Labor Resource		Social Security	Medicare	FUTA	SUTA	SF Pay	WC	Vacation/Holiday	Other Fringes	Fully Burdened
		6.20%	1.45%	0.60%	6.20%	1.50%	12.00%			
										0
Carpenter	\$ 38.50	\$ 2.64	\$ 0.62	\$ 0.26	\$ 2.64	\$ 0.64	\$ 5.11	\$ 4.05	\$ 21.77	\$ 76.21
Cement Mason	\$ 28.65	\$ 2.09	\$ 0.49	\$ 0.20	\$ 2.09	\$ 0.51	\$ 4.05	\$ 5.14	\$ 16.82	\$ 60.05
Electrician (Inside Wireman)	\$ 54.87	\$ 3.72	\$ 0.87	\$ 0.36	\$ 3.72	\$ 0.90	\$ 7.20	\$ 1.64	\$ 23.95	\$ 97.23
Flag Person	\$ 26.89	\$ 1.82	\$ 0.43	\$ 0.18	\$ 1.82	\$ 0.44	\$ 3.52	\$ 2.48	\$ 14.62	\$ 52.20
Iron Worker	\$ 33.00	\$ 2.29	\$ 0.54	\$ 0.22	\$ 2.29	\$ 0.55	\$ 4.43	\$ 3.92	\$ 21.37	\$ 68.60
Laborer (G1)	\$ 26.89	\$ 1.82	\$ 0.43	\$ 0.18	\$ 1.82	\$ 0.44	\$ 3.52	\$ 2.48	\$ 15.96	\$ 53.54
Laborer (G2)	\$ 26.99	\$ 1.83	\$ 0.43	\$ 0.18	\$ 1.83	\$ 0.44	\$ 3.54	\$ 2.48	\$ 15.96	\$ 53.67
Operating Engineer (OE) (G2)	\$ 36.24	\$ 2.48	\$ 0.58	\$ 0.24	\$ 2.48	\$ 0.60	\$ 4.79	\$ 3.70	\$ 22.77	\$ 73.87
Operating Engineer (OE) (G3)	\$ 34.76	\$ 2.38	\$ 0.56	\$ 0.23	\$ 2.38	\$ 0.58	\$ 4.62	\$ 3.70	\$ 22.77	\$ 71.98
Pile Driver (PD) (G2)	\$ 37.17	\$ 2.53	\$ 0.59	\$ 0.25	\$ 2.53	\$ 0.61	\$ 4.90	\$ 3.70	\$ 22.77	\$ 75.06
Plumber Utility Pipe Fitter	\$ 51.00	\$ 3.18	\$ 0.74	\$ 0.31	\$ 3.18	\$ 0.77	\$ 6.16	\$ 0.30	\$ 29.65	\$ 95.29
Teamster	\$ 27.43	\$ 1.83	\$ 0.43	\$ 0.18	\$ 1.83	\$ 0.44	\$ 3.55	\$ 2.15	\$ 20.42	\$ 58.27
Traffic Control Person I	\$ 27.19	\$ 1.84	\$ 0.43	\$ 0.18	\$ 1.84	\$ 0.45	\$ 3.56	\$ 2.48	\$ 14.62	\$ 52.58
Traffic Control Person II	\$ 24.69	\$ 1.68	\$ 0.39	\$ 0.16	\$ 1.68	\$ 0.41	\$ 3.26	\$ 2.48	\$ 14.62	\$ 49.38
Scaffold / Shoring Erector	\$ 38.65	\$ 2.65	\$ 0.62	\$ 0.26	\$ 2.65	\$ 0.64	\$ 5.12	\$ 4.05	\$ 21.77	\$ 76.40
Elevator Mechanic/Constructor	\$ 57.29	\$ 3.77	\$ 0.88	\$ 0.36	\$ 3.77	\$ 0.91	\$ 7.29	\$ 3.44	\$ 23.84	\$ 101.54
Elevator Mechanic Helper	\$ 40.10	\$ 2.70	\$ 0.63	\$ 0.26	\$ 2.70	\$ 0.65	\$ 5.22	\$ 3.44	\$ 23.84	\$ 79.54
Asbestos Removal Specialist II	\$ 24.87	\$ 1.67	\$ 0.39	\$ 0.16	\$ 1.67	\$ 0.40	\$ 3.23	\$ 2.02	\$ 10.53	\$ 44.94
Lead Removal Worker	\$ 36.25	\$ 2.36	\$ 0.55	\$ 0.23	\$ 2.36	\$ 0.57	\$ 4.57	\$ 1.85	\$ 6.09	\$ 54.84

Client: SFMTA  
 Hill Project Number: PNN-01219.01  
 CN 1252- Tunnel  
 Change Order Request No. 002  
 Engineer's Estimate



# Hill International

Change Order Request - 002  
 10/9/2012

Equipment	Caltrans Page No	CalTrans Category Sub-Category Rental Quote/ Code	Hourly Rate	Delay Factor	Standby Rate
Equipment			\$ -		
1 Work Truck	34	TRUCK	\$ 33.12	0.14	\$ 4.64
2 Dump truck - 3-axle	34	TRUON	\$ 66.43	0.16	\$ 10.63
3 Tow Behind Trailer	33	TRAIT	\$ 5.72	0.42	\$ 2.40
4 End Dump - 5-axle	34	TRUON	\$ 83.50	0.16	\$ 13.36
5 Generator	6	ELGEN	\$ 14.18	0.11	\$ 1.56
6 Air Compressor	1	AIRCP	\$ 34.31	0.12	\$ 4.12
60-90 Lb. Jack-hammer	1	AIRTOL	\$ 1.31	0.61	\$ 0.80
<b>Air compressor, hoses &amp; hammer total</b>			<b>\$ 35.62</b>		<b>\$ 4.92</b>
7 Arc Welder	34	WELD	\$ 11.87	0.18	\$ 2.14
Welding Rods	N/A	N/A	\$ 5.34		\$ -
F250	34	TRUCK	\$ 33.12	0.14	\$ 4.64
<b>Welder and Truck</b>			<b>\$ 50.33</b>		<b>\$ 6.77</b>
8 Torches and Tanks	34	WELD	\$ 0.24	0.18	\$ 0.04
Oxygen Tank and Acetylene Tank	N/A	N/A	\$ 38.70		\$ -
<b>Total Torches and Tanks</b>			<b>\$ 38.94</b>		<b>\$ 0.04</b>
9 Rotohammer	6	ELTOL	\$ 0.44	0.61	\$ 0.27
Generator	6	ELGEN	\$ 14.18	0.11	\$ 1.56
<b>Rotohammer and Generator</b>			<b>\$ 14.62</b>		<b>\$ 1.83</b>
10 Rivet Buster	1	AIRTOL	\$ 1.31	0.61	\$ 0.80
Air Compressor	1	AIRCP	\$ 34.31	0.12	\$ 4.12
<b>Rivet Buster and Air Compressor</b>			<b>\$ 35.62</b>		<b>\$ 4.92</b>
11 Compactor, Hand Guided	4	COMHG	\$ 8.82	0.18	\$ 1.59
12 Bobcat 763	31	TRACS	\$ 25.35	0.11	\$ 2.79
13 Backhoe (John Deere ID 310G)	18	LDDRT	\$ 62.87	0.12	\$ 7.54
Clam Shell Bucket	1	N/A	\$ 9.29	0.12	\$ 1.11
<b>Backhoe w/ Clam Shell total</b>			<b>\$ 72.16</b>		<b>\$ 8.66</b>

Client: SFMTA

Hill Project Number: PNN-01219.01

CN 1252- Tunnel

Change Order Request No. 002

Engineer's Estimate



# Hill International

Change Order Request - 002

10/9/2012

14 Breaker attachment for Backhoe	7 HAMMR	\$ 42.26	0.23	\$ 9.72
15 Mini Excavator (Kubota U45)	N/A N/A	\$ 63.79	0.18	\$ 11.48
16 Excavator (Hitachi 200)	N/A N/A	\$ 142.51	0.18	\$ 25.65
17 New Holland Excavator (E135)	N/A N/A	\$ 120.13	0.18	\$ 21.62
18 Ride-on Sweeper	4 BRMSW	\$ 145.11	0.14	\$ 20.32
19 Bituminous Distributor	4 BITDT	\$ 6.52	0.14	\$ 0.91
Work truck	33 TRUCK	\$ 33.12	0.14	\$ 4.64
<b>Bituminous Distributor with truck</b>		<b>\$ 39.64</b>		<b>\$ 5.55</b>
20 Fork Lift Truck	6 FKLFT	\$ 27.14	0.20	\$ 5.43
21 Concrete Saw	28 SAWCO	\$ 19.63	0.14	\$ 2.75
Saw blade 12" x \$18 per hour (100 LF)	28 SAWCO	\$ 216.00	0.14	\$ 30.24
Concrete Saw and Blade		\$ 235.63		\$ 32.99
22 Water Pump	22 PUMWA	\$ 22.61	0.35	\$ 7.91
<b>23 Confined Space Equipment</b>				
Gas Detector 4-Gas w/ Motorized Integral Pump		\$22.79		
Blower Portable w/ 8"x15' Hose		\$8.82		
Retrieval 65' Winch for Tripod		\$11.53		
SCBA-NFPA Approved 2216 PSI Complete alrpeck		\$9.03		
<b>Total Confined Space</b>		<b>\$52.15</b>		
24 Traffic Control (per street, intersection = x2 streets)				
Construction Signs	32 TR AFC	\$7.29		
Changeable Message Boards	32 TR AFA	\$9.92		
Arrow Board	32 TR AFA	\$3.20		
No Parking Signs (A-frames)	32 TR AFC	\$0.22		
Cones (per 100)	32 TR AFC	\$13.27		
25 Interlocking Water Filled Triton Barrier	N/A N/A	\$4.07		
\$30 per day /8 plus tax				
26 Traffic Plates Installed				
Total per Plate (small)	N/A N/A	\$9.48		
Total per Plate (large)	N/A N/A	\$12.15		
27 Trench Shoring (4' wide trends)		\$4.34		
Total per trench shore		\$2.17		
Pvmnt Roller		\$ 32.62		
Traffic Control (Intersection)		\$ 30.90		



SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV

## EVALUATION of MERIT

### COR 003

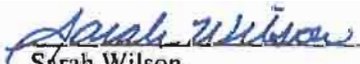
**Recommendation:** Accept justification for merit of COR 003. The existing AT&T vault and duct bank were not correctly shown on the contract drawings, and interfered with contract installation work related to the sewer main. Additional effort was needed to accomplish the contract work.

**Facts:** During excavation at the intersection of Fourth St. and Harrison St., BIH's subcontractor Synergy Project Management (SPM) discovered that an existing AT&T vault and duct bank conflicted with the installation of the 35 lineal feet of 42" RCP required as shown on contract drawing SW-5, Rev. 0.

**Rationale for COR:** AT&T inspector David Gibbons field verified the conflict and approved the removal of a portion of the vault and duct bank to ensure the completion of the sewer main. This approval was documented in the responses to RFIs 49, 49.1, and 49.2.

**Justification:** The following additional activities were required to be performed in order to complete the installation of the sewer main: chip away the duct bank concrete encasement, chip away a portion of the vault's NE corner, concrete disposal, new construction of the vault's NE wall and new construction of the concrete encasement surrounding the duct bank.

Note: this COR also relates to a time impact analysis which has been received under cover of COR 008.

By:  10/10/12  
Sarah Wilson Date  
Resident Engineer

 10/10/12  
Configuration Management Board Date  
Approval



**BARNARD  
IMPREGILO  
HEALY** JOINT VENTURE

# BARNARD IMPREGILO HEALY JOINT VENTURE

420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822

## PRELIMINARY CHANGE ORDER REQUEST FORM

Third Street Lightrail Program Phase 2 - Central Subway Project  
CONTRACT 1252

9/5/2012

**COR 3: LB - ATT Vault Conflict w/ 42" RCP Sewer Main**

**DIRECT COST IMPACTS:**

COR #003 submitted on 8/15/2012 had a total direct cost impact equal to \$21,089.02. See the COR package for details of all direct costs.

**TIME IMPACTS:**

Time impacts pertaining to this COR are captured in the COR #008 package (TIA Summary for COR's 001, 002 and 003.

**WHAT (DESCRIPTION OF COR):**

SPM spent an additional 3 days to chip the AT&T vault in the Harrison intersection due to it's conflict with the 42" sewer bypass to be installed per the contract drawings. Part of the duct bank needed to be chipped and patched as well after the sewer line was installed.

**WHY (REASON FOR COR):**

This vault was not shown in this location on the base contract drawings with the corner in the way of the sewer line. As a result of this differing condition, Synergy spent an additional 3 days to chip the vault and prepare the area to allow for clearance for the sewer line.

**WHERE (LOCATION/STATION):**

4th & Harrison

**WHEN (OCCURRENCE DATE, ACTION DATE):**

The work occurred throughout April 2012, and the duct bank was re-poured on 6/8/12.

**HOW (RECOMMENDATION OF ACTION):**

SPM wrote RFI's about the conflict as it is required to do in the specifications, notifying and requesting information about how to proceed. Furthermore, in a effort to mitigate any time delay, Synergy shifted its crews to work on other areas of the job while approval to proceed with the work was given by the designer and AT&T. Work for this was approved to be tracked on force account.

SPEC REF: 33 31 00  
APPLICABLE DRAWINGS: SW-5

PREPARED BY:

Jackie Switsky Engineer 9/5/12  
Contractor's Representative (Name, Title) Date

## Hembd, Matthew

---

**From:** Wilson, Sarah H (SFMTA)  
**Sent:** Wednesday, September 19, 2012 4:51 PM  
**To:** Hembd, Matthew  
**Subject:** FW: 1252 COR #003

**Categories:** Red Category

FYI

---

**From:** HUYNH, HUAN C [mailto:hh2621@att.com]  
**Sent:** Friday, September 07, 2012 11:29 AM  
**To:** Wilson, Sarah H (SFMTA)  
**Cc:** Benson, Mark; Barnhart, Kenneth J  
**Subject:** RE: 1252 COR #003

Sarah,

AT&T agrees to the change order request. Please proceed with the invoice.

Thanks  
Huan

---

**From:** Wilson, Sarah H (SFMTA) [mailto:Sarah.Wilson@sfmta.com]  
**Sent:** Thursday, August 16, 2012 9:54 PM  
**To:** HUYNH, HUAN C  
**Cc:** Benson, Mark; Barnhart, Kenneth J  
**Subject:** 1252 COR #003

Huan:

Attached is an electronic copy of the change order request I provided to you today. Please review and let me know if AT&T agrees to this change order request. If you would like any additional information, just let me know.

Please note that the COR mentions a possible time impact, which we are evaluating separately. If we determine that the time impact has merit and is attributable to AT&T, we will let you know.

Regards,  
Sarah

---

**From:** Jack Sucilsky [jack.sucilsky@barnard-inc.com]  
**Sent:** Thursday, August 16, 2012 2:14 PM  
**To:** Wilson, Sarah H (SFMTA)  
**Cc:** Hembd, Matthew; Leong, Kristie  
**Subject:** RE: COR #003

Sarah,

See attached COR #003. One force account was illegible in the previous submission, fa tag 4053, and this was replaced. Synergy's lab-mat sheet was scanned in color. Please forward to AT&T.

Thanks,



---

**From:** Wilson, Sarah H (SFMTA) [<mailto:Sarah.Wilson@sfmta.com>]  
**Sent:** Thursday, August 16, 2012 1:13 PM  
**To:** 'Jack Sucilsky'  
**Cc:** Hembd, Matthew; Leong, Kristie  
**Subject:** RE: COR #003

Jack,

I am providing a hard copy of this COR to AT&T today; however, could you try to get a slightly better scan? Some of the force account tags are illegible. In addition, SPM's labor and material detail makes reference to items marked in yellow, but there are none visible.

I'd like a better electronic copy to send to AT&T.

Thanks,  
Sarah

Sarah H. Wilson, PE  
CN 1252 Resident Engineer  
SFMTA Central Subway Project  
420 4<sup>th</sup> Street  
San Francisco, CA 94107

Direct: (415) 243-0950



Mobile: (415) 312-9167



Email: [Sarah.Wilson@sfmta.com](mailto:Sarah.Wilson@sfmta.com)

---

**From:** Jack Sucilsky [<mailto:jack.sucilsky@barnard-inc.com>]  
**Sent:** Wednesday, August 15, 2012 10:15 AM  
**To:** Wilson, Sarah H (SFMTA)  
**Cc:** Barnhart, Kenneth J; 'Matthew Hembd'; Leong, Kristie; Washington, Marlon D; [ben.campbell@barnard-inc.com](mailto:ben.campbell@barnard-inc.com); [beau.blume@barnard-inc.com](mailto:beau.blume@barnard-inc.com); 'Alessandro Tricamo'; Hawk, William  
**Subject:** COR #003

Sarah/Matt,

Attached is the COR #003 (LB – ATT Vault Conflict with 42 inch RCP Sewer Main) package. I know that only the BIH cover page was requested, but I thought it would be more beneficial if I updated the entire package and submitted

complete. This way the SFMTA can review and forward to AT&T as needed. A hard copy of this package is currently being delivered to Marlon.

Thanks,





# Hill International

Change Order Request - 003

10/5/2012

## COR 003

No.	Activity Name	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)
Labor	1 Chip vault and duct bank	\$ 2,293.00	\$ 1,969.61	\$ (323.39)
	2 Chip vault	\$ 1,146.00	\$ 984.81	\$ (161.19)
	3 Chip vault	\$ 1,039.00	\$ 931.92	\$ (107.08)
	4 Chip vault	\$ 1,688.00	\$ 1,515.22	\$ (172.78)
	5 Pour AT&T vault wall	\$ 260.00	\$ 232.98	\$ (27.02)
	6 Pour/finish duct bank	\$ 319.00	\$ 286.65	\$ (32.35)
	7 Activity Name	\$ -	\$ -	\$ -
	8 Activity Name	\$ -	\$ -	\$ -
	9 Activity Name	\$ -	\$ -	\$ -
	10 Activity Name	\$ -	\$ -	\$ -
	11 Activity Name	\$ -	\$ -	\$ -
	12 Activity Name	\$ -	\$ -	\$ -
Equipment	1 Chip vault and duct bank	\$ 2,816.00	\$ 2,159.34	\$ (656.66)
	2 Chip vault	\$ 1,199.00	\$ 1,028.33	\$ (170.68)
	3 Chip vault	\$ 1,499.00	\$ 2,088.84	\$ 589.84
	4 Chip vault	\$ 2,680.00	\$ 2,520.07	\$ (159.93)
	5 Pour AT&T vault wall	\$ 424.00	\$ 234.32	\$ (189.68)
	6 Pour/finish duct bank	\$ 185.00	\$ 160.25	\$ (24.75)
	7 Activity Name	\$ -	\$ -	\$ -
	8 Activity Name	\$ -	\$ -	\$ -
	9 Activity Name	\$ -	\$ -	\$ -
	10 Activity Name	\$ -	\$ -	\$ -
	11 Activity Name	\$ -	\$ -	\$ -
	12 Activity Name	\$ -	\$ -	\$ -
<b>Material</b>		\$ 676.19	\$ 662.94	
<b>Markup LM&amp;E - 15%</b>		\$ 2,433.63	\$ 2,216.29	
<b>2nd Tier Subs</b>		\$ -	\$ -	
<b>Markup - 5%</b>		\$ -	\$ -	
<b>Sub. Bond/Insurance 2.14%</b>		\$ 399.28	\$ 363.62	
<b>Prime Markup - 5%</b>		\$ 952.85	\$ 867.76	
<b>Prime Bond/Insurance 1.68%</b>		\$ 336.17	\$ 306.15	
<b>Total</b>		\$ 20,346.12	\$ 18,529.09	\$ (1,817.03)

### Summary of Differences:

- Crew size different for activity No. 6
- "tool truck" not included in Engineer's Estimate
- Generator not included in Engineer's Estimate
- Extra jackhammer not included in Engineer's Estimate (included in air compressor rate)

Client: SFMTA  
 Hill Project Number: PNN-01219.01  
 CN 1252 - Tunnel  
 Change Order Request No. 003  
 Engineer's Estimate



# Hill International


Change Order Request - 003  
 10/5/2012

No.	Activity	Days	Hourly rates:							Labor totals	Equipment Rates											Equipment Totals
			Operating Engineer (OE) (G3)	Laborer (G2)	Plumber Utility Pipe Fitter	Labor Resource	Labor Resource	Labor Resource	Labor Resource		Work Truck	Air compressor, hoses & hammer total	Dump truck - 3-axle	Backhoe (John Deere ID 310G)	Breaker attachment for Backhoe	Mini Excavator (Kubota U45)	Construction Signs	Changeable Message Boards	Arrow Board	Interlocking Water Filled Triton Barrier	Total per Plate (small)	
1	Chip vault and duct bank	0.75	1	3	1				\$ 1,969.61	1	1	1	1	1	0	3	1	2	20			\$ 2,159.34
2	Chip vault	0.375	1	3.00	1				\$ 984.81	1	0.25	1			1	3	1	2	20	4	6	\$ 1,028.33
3	Chip vault	1	0.5	1.5					\$ 931.92	0.5	0.25	0.5			0.5	3	1	2	20	4	6	\$ 2,088.84
4	Chip vault	1	1	2.188					\$ 1,515.22	1	1	0.66			0.5	3	1	2	20	4	6	\$ 2,520.07
5	Pour AT&T vault wall	0.125	1	3					\$ 232.98						1	3	1	2	20	4	6	\$ 234.32
6	Pour/finish duct bank	0.125	1	4					\$ 286.65	1			0.12			3	1	2	20			\$ 160.25
7	Activity Name								\$ -													\$ -
8	Activity Name								\$ -													\$ -
9	Activity Name								\$ -													\$ -
10	Activity Name								\$ -													\$ -
11	Activity Name								\$ -													\$ -
12	Activity Name								\$ -													\$ -
13	<b>Total</b>								\$ 5,921.19													\$ 8,191.15

Labor	\$ 5,921.19
Material	\$ 662.94
Equipment	\$ 8,191.15
2nd Tier Sub	\$ -
Markup on 2nd Tier Sub - 5%	\$ -
1st Tier Sub OH&P - 15%	\$ 2,216.29
1st Tier Sub Bond/Insurance - 2.14%	\$ 363.62
Prime - Markup - 5%	\$ 867.76
Prime - Bond/Insurance - 1.68%	\$ 306.15
<b>Total Amount</b>	<b>\$ 18,529.09</b>

Assumptions:

Shift Duration: 8hrs

Estimated By:   
 Ken Barnhart

Checked By:   
 Charles F. Dombrowski

Client: SFMTA  
Hill Project Number: PNN-01219.01  
CN 1252 - Tunnel  
Change Order Request No. 003  
Engineer's Estimate



# Hill International

Change Order Request - 003  
10/5/2012

	Material	Qty.	Unit	Unit Price	Extension
	Concrete - Duct Bank	2	CY	\$ 197.50	\$ 395.00
	Concrete - Manhole	1	CY	\$ 216.00	\$ 216.00
					\$ -
					\$ -
	Sales Tax 8.5%				\$ 51.94
<b>Total</b>					<b>\$ 662.94</b>
	2nd Tier Sub Quote				\$ -



Client: SFMTA  
 Hill Project Number: PNN-01219.01  
 CN 1252 - Tunnel  
 Change Order Request No. 003  
 Engineer's Estimate



# Hill International

Change Order Request - 003  
 10/5/2012

## Prevailing Labor Rates - SF

Labor Resource		Social Security	Medicare	FUTA	SUTA	SF Pay	WC	Vacation/Holiday	Other Fringes	Fully Burdened
		6.20%	1.45%	0.60%	6.20%	1.50%	12.00%			
										0
Carpenter	\$ 38.50	\$ 2.64	\$ 0.62	\$ 0.26	\$ 2.64	\$ 0.64	\$ 5.11	\$ 4.05	\$ 21.77	\$ 76.21
Cement Mason	\$ 28.65	\$ 2.09	\$ 0.49	\$ 0.20	\$ 2.09	\$ 0.51	\$ 4.05	\$ 5.14	\$ 16.82	\$ 60.05
Electrician (Inside Wireman)	\$ 54.87	\$ 3.72	\$ 0.87	\$ 0.36	\$ 3.72	\$ 0.90	\$ 7.20	\$ 1.64	\$ 23.95	\$ 97.23
Flag Person	\$ 26.89	\$ 1.82	\$ 0.43	\$ 0.18	\$ 1.82	\$ 0.44	\$ 3.52	\$ 2.48	\$ 14.62	\$ 52.20
Iron Worker	\$ 33.00	\$ 2.29	\$ 0.54	\$ 0.22	\$ 2.29	\$ 0.55	\$ 4.43	\$ 3.92	\$ 21.37	\$ 68.60
Laborer (G1)	\$ 26.89	\$ 1.82	\$ 0.43	\$ 0.18	\$ 1.82	\$ 0.44	\$ 3.52	\$ 2.48	\$ 15.96	\$ 53.54
Laborer (G2)	\$ 26.99	\$ 1.83	\$ 0.43	\$ 0.18	\$ 1.83	\$ 0.44	\$ 3.54	\$ 2.48	\$ 15.96	\$ 53.67
Operating Engineer (OE) (G2)	\$ 36.24	\$ 2.48	\$ 0.58	\$ 0.24	\$ 2.48	\$ 0.60	\$ 4.79	\$ 3.70	\$ 22.77	\$ 73.87
Operating Engineer (OE) (G3)	\$ 34.76	\$ 2.38	\$ 0.56	\$ 0.23	\$ 2.38	\$ 0.58	\$ 4.62	\$ 3.70	\$ 22.77	\$ 71.98
Pile Driver (PD) (G2)	\$ 37.17	\$ 2.53	\$ 0.59	\$ 0.25	\$ 2.53	\$ 0.61	\$ 4.90	\$ 3.70	\$ 22.77	\$ 75.06
Plumber Utility Pipe Fitter	\$ 51.00	\$ 3.18	\$ 0.74	\$ 0.31	\$ 3.18	\$ 0.77	\$ 6.16	\$ 0.30	\$ 29.65	\$ 95.29
Teamster	\$ 27.43	\$ 1.83	\$ 0.43	\$ 0.18	\$ 1.83	\$ 0.44	\$ 3.55	\$ 2.15	\$ 20.42	\$ 58.27
Traffic Control Person I	\$ 27.19	\$ 1.84	\$ 0.43	\$ 0.18	\$ 1.84	\$ 0.45	\$ 3.56	\$ 2.48	\$ 14.62	\$ 52.58
Traffic Control Person II	\$ 24.69	\$ 1.68	\$ 0.39	\$ 0.16	\$ 1.68	\$ 0.41	\$ 3.26	\$ 2.48	\$ 14.62	\$ 49.38
Scaffold / Shoring Erector	\$ 38.65	\$ 2.65	\$ 0.62	\$ 0.26	\$ 2.65	\$ 0.64	\$ 5.12	\$ 4.05	\$ 21.77	\$ 76.40
Elevator Mechanic/Constructor	\$ 57.29	\$ 3.77	\$ 0.88	\$ 0.36	\$ 3.77	\$ 0.91	\$ 7.29	\$ 3.44	\$ 23.84	\$ 101.54
Elevator Mechanic Helper	\$ 40.10	\$ 2.70	\$ 0.63	\$ 0.26	\$ 2.70	\$ 0.65	\$ 5.22	\$ 3.44	\$ 23.84	\$ 79.54
Asbestos Removal Specialist II	\$ 24.87	\$ 1.67	\$ 0.39	\$ 0.16	\$ 1.67	\$ 0.40	\$ 3.23	\$ 2.02	\$ 10.53	\$ 44.94
Lead Removal Worker	\$ 36.25	\$ 2.36	\$ 0.55	\$ 0.23	\$ 2.36	\$ 0.57	\$ 4.57	\$ 1.85	\$ 6.09	\$ 54.84



# Hill International

Change Order Request - 003  
10/5/2012

Equipment	Caltrans Page No	CalTrans Category Sub-Category Rental Quote/ Code	Hourly Rate	Delay Factor	Standby Rate
Equipment			\$ -		
1 Work Truck	34	TRUCK	\$ 33.12	0.14	\$ 4.64
2 Dump truck - 3-axle	34	TRUON	\$ 66.43	0.16	\$ 10.63
3 Tow Behind Trailer	33	TRAIT	\$ 5.72	0.42	\$ 2.40
4 End Dump - 5-axle	34	TRUON	\$ 83.50	0.16	\$ 13.36
5 Generator	6	ELGEN	\$ 14.18	0.11	\$ 1.56
6 Air Compressor	1	AIRCP	\$ 34.31	0.12	\$ 4.12
60-90 Lb. Jack-hammer	1	AIRTOL	\$ 1.31	0.61	\$ 0.80
<b>Air compressor, hoses &amp; hammer total</b>			<b>\$ 35.62</b>		<b>\$ 4.92</b>
7 Arc Welder	34	WELD	\$ 11.87	0.18	\$ 2.14
Welding Rods	N/A	N/A	\$ 5.34		\$ -
F250	34	TRUCK	\$ 33.12	0.14	\$ 4.64
<b>Welder and Truck</b>			<b>\$ 50.33</b>		<b>\$ 6.77</b>
8 Torches and Tanks	34	WELD	\$ 0.24	0.18	\$ 0.04
Oxygen Tank and Acetylene Tank	N/A	N/A	\$ 38.70		\$ -
<b>Total Torches and Tanks</b>			<b>\$ 38.94</b>		<b>\$ 0.04</b>
9 Rotohammer	6	ELTOL	\$ 0.44	0.61	\$ 0.27
Generator	6	ELGEN	\$ 14.18	0.11	\$ 1.56
<b>Rotohammer and Generator</b>			<b>\$ 14.62</b>		<b>\$ 1.83</b>
10 Rivet Buster	1	AIRTOL	\$ 1.31	0.61	\$ 0.80
Air Compressor	1	AIRCP	\$ 34.31	0.12	\$ 4.12
<b>Rivet Buster and Air Compressor</b>			<b>\$ 35.62</b>		<b>\$ 4.92</b>
11 Compactor, Hand Guided	4	COMHG	\$ 8.82	0.18	\$ 1.59
12 Bobcat 763	31	TRACS	\$ 25.35	0.11	\$ 2.79
13 Backhoe (John Deere ID 310G)	18	LDDRT	\$ 62.87	0.12	\$ 7.54



# Hill International

Change Order Request - 003

10/5/2012

Clam Shell Bucket	1	N/A	\$ 9.29	0.12	\$ 1.11
<b>Backhoe w/ Clam Shell total</b>			<b>\$ 72.16</b>		<b>\$ 8.66</b>
14 Breaker attachment for Backhoe	7	HAMMR	\$ 42.26	0.23	\$ 9.72
15 Mini Excavator (Kubota U45)	N/A	N/A	\$ 63.79	0.18	\$ 11.48
16 Excavator (Hitachi 200)	N/A	N/A	\$ 142.51	0.18	\$ 25.65
17 New Holland Excavator (E135)	N/A	N/A	\$ 120.13	0.18	\$ 21.62
18 Ride-on Sweeper	4	BRMSW	\$ 145.11	0.14	\$ 20.32
19 Bituminous Distributor	4	BITDT	\$ 6.52	0.14	\$ 0.91
Work truck	33	TRUCK	\$ 33.12	0.14	\$ 4.64
<b>Bituminous Distributor with truck</b>			<b>\$ 39.64</b>		<b>\$ 5.55</b>
20 Fork Lift Truck	6	FKLFT	\$ 27.14	0.20	\$ 5.43
21 Concrete Saw	28	SAWCO	\$ 19.63	0.14	\$ 2.75
Saw blade 12" x \$18 per hour (100 LF)	28	SAWCO	\$ 216.00	0.14	\$ 30.24
Concrete Saw and Blade			\$ 235.63		\$ 32.99
22 Water Pump	22	PUMWA	\$ 22.61	0.35	\$ 7.91
<b>23 Confined Space Equipment</b>					
Gas Detector 4-Gas w/ Motorized Integral Pump			\$22.79		
Blower Portable w/ 8"x15' Hose			\$8.82		
Retrieval 65' Winch for Tripod			\$11.53		
SCBA-NFPA Approved 2216 PSI Complete airpeck			\$9.03		
<b>Total Confined Space</b>			<b>\$52.15</b>		
24 Traffic Control (per street, intersection = x2 streets)					
Construction Signs	32	TR AFC	\$7.29		
Changeable Message Boards	32	TR AFA	\$9.92		
Arrow Board	32	TR AFA	\$3.20		
No Parking Signs (A-frames)	32	TR AFC	\$0.22		
Cones (per 100)	32	TR AFC	\$13.27		
25 Interlocking Water Filled Triton Barrier	N/A	N/A	\$4.07		
\$30 per day /8 plus tax					
26 Traffic Plates Installed					
Total per Plate (small)	N/A	N/A	\$9.48		
Total per Plate (large)	N/A	N/A	\$12.15		
27 Trench Shoring (4' wide trends)			\$4.34		
Total per trench shore			\$2.17		

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV

## EVALUATION of MERIT

### COR 010

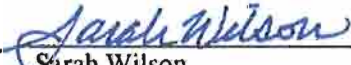
**Recommendation:** Accept justification for merit of COR 010. PG&E requested the demolition of concrete duct bank and manhole 1495 to facilitate the removal of city 911 fiber optic cable which crossed the north Moscone headwall.

**Facts:** PG&E requested the demolition of concrete duct bank and manhole 1495, located just north of the north Moscone headwall as indicated on UT-402, Rev. 0, to facilitate their removal of the city 911 fiber optic cable.


**Rationale for COR:** This demolition was requested by Michael Lightstone of PG&E and a not to exceed amount of \$5,000 was established by PG&E for this work.

**Justification:** The following additional activities were required to be performed in order to complete the manhole and duct bank demolition: traffic control, concrete demolition disposal, and patching.

By:

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

10/10/12  
Date

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

10/10/12  
Date

# Barnard Impregilo Healy JV

TRANSMITTAL

No. 00534

PO BOX 78270  
San Francisco, CA 94107

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

**PROJECT:** Contract 1252 - Tunnels

**DATE:** 8/15/2012

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

**REF:** COR #010 (Revision)  
MOS - Demo PGE Duct Banks  
& SF City 911 Fiber Optic Lines

**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 checked="" type="checkbox"/> As Requested	<input type="checkbox"/> Returned After Loan
<input type="checkbox"/> Change Order	<input type="checkbox"/> Review and Comment	<input checked="" type="checkbox"/> Resubmit
<input type="checkbox"/> Plans		<input type="checkbox"/> Submit
<input type="checkbox"/> Samples	<b>SENT VIA:</b>	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Returned for Corrections
<input type="checkbox"/> Other:	<input type="checkbox"/> Separate Cover Via:	<input type="checkbox"/> Due Date.

ITEM NO.	COPIES	DATE	ITEM NUMBER	REV. NO.	DESCRIPTION	STATUS
1	1	8/15/2012			COR #010 package revision	NEW

**Remarks:** Attached is one (1) hard copy of change order request (COR) #010 (MOS - Demo PGE duct bank / SF City 911 fiber optic lines). This package has been revised per the latest mutual agreements between SFMTA, BIH and Synergy. The package is ready for distribution to PGE as requested by the SFMTA.

CC:

Signed:

  
Jack William Sucielsky



# BARNARD IMPREGILO HEALY JOINT VENTURE

420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822

Third Street Lightrail Program Phase 2 - Central Subway Project  
 CONTRACT 1252


8/15/2012


COR 010: MOS - Demo PGE duct bank / SF city 911 fiber optic line


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

Direct Costs	Total
Labor	\$0.00
Labor Markup at Specified 20%	\$0.00
Equipment	\$0.00
Equipment Markup at Specified 15%	\$0.00
Materials	\$0.00
Materials Markup at Specified 15%	\$0.00
Other items And Expenditures	\$0.00
Other items And Expenditures Markup at Specified 15%	\$0.00
Subcontractors	\$4,604.12
Contractors Markup at Specified 5%	\$230.21
<b>Total Project Costs</b>	<b>\$4,834.33</b>
BIHJV Payment & Performance Bonds & Bullder's Risk insurance (1.68%)	\$81.22
Contractors Markup at Specified 5%	\$4.06
<b>Total Bonds &amp; insurance costs</b>	<b>\$85.28</b>
<b>Total Amount</b>	<b>\$4,919.60</b>

↑

X  8/23/12

X  8/23/12

X  8/23/12



**BARNARD  
IMPREGILO  
HEALY** JOINT VENTURE

## **BARNARD IMPREGILO HEALY JOINT VENTURE**

420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822

### **CHANGE ORDER REQUEST**

**Third Street Light Rail Phase 2 – Central Subway Project  
Contract No. 1252**

**COR: 010**

**DATE: August 15, 2012**

**TITLE: MOS – Demo PGE duct bank / SF city 911 fiber optic line**

#### **Issues:**

Synergy discovered a PGE duct bank that contained a live San Francisco 911 fiber optic line that was in conflict with the north Moscone headwall. This line was not shown on the contract drawings which constitutes a differing site condition. PGE requested that Synergy demolish this duct bank for a LS price not to exceed \$5000.

#### **Impacts:**

Synergy's crew spent a full day to demolish the PGE duct bank and expose the San Francisco city 911 fiber optic lines. The cost of this work is summarized on the labor and material page included in this COR.

#### **Scope:**

This COR includes costs incurred to perform the additional work outlined above. A detailed breakdown of these costs includes:

- 1.) Demolish PGE duct bank and expose San Francisco city 911 fiber optic line:  
Synergy's crew spent one full day performing the demolition and disposal of an existing concrete PGE duct bank. The crew concurrently exposed the San Francisco 911 fiber optic line without damaging the line. Once exposed, San Francisco city crews re-routed this line away from the north headwall location eliminating the obstruction.

#### **Time Impact Analysis (TIA):**

A TIA will not be submitted for this COR as this differing site condition didn't impact the critical path of the project's CPM baseline schedule.

#### **Exclusions:**

This COR includes costs for only those items specifically described in the Scope section above.

**Synergy Project Management, Inc.**

30 Grant Avenue, Suite 300  
 San Francisco, CA 94108  
 Phone (415) 467-3000  
 Fax (415) 467-3001  
 www.SynergyPM.com



**SFMTA 1252 Utilities Relocation Project**

**Date:** August 23, 2012

**COR Title:** MOS - Demo PGE duct bank / SF City 911 fiber optic line

**Change Order Request No. 10**

Cost Summary	Direct Cost Subtotal	Overhead & Profit	Total
Labor	\$1,848.26	15%	\$2,125.50
Material	\$168.53	15%	\$193.81
Equipment	\$3,463.20	15%	\$3,982.68
Unit priced items	\$0.00	0%	\$0.00
Permits & Fees	\$240.00	5%	\$252.00
<b>Subtotal</b>	<b>\$5,719.99</b>		<b>\$6,553.99</b>
Bonds & Insurance	\$6,553.99	2.14%	\$140.26
Price reduction as agreed on PG&E email			-\$2,090.13
<b>Total</b>			<b>\$4,604.12</b>
<b>Time Extension Requested (in working days):</b>			N/A

1. Spec. Reference:	N/A
2. Drawing Reference:	UD-402
3. What (Description):	Additional work to demo a duct bank that ran through an existing PG&E vault at the north MOS head wall, along with patching concrete of the vault. This duct bank contained a live San Francisco 911 communication line that was in conflict with the guide wall work. This line was not on the base contract drawings and constitutes a differing condition from what was shown at the time of bid. PG&E requested a price to remove the duct bank inside the PG&E vault and agreed to pay a lump sum of \$5000.00 (including SPM's and BIH's markup). SPM informed the SFMTA inspector of the work and cost and was instructed to submit a COR.
4. Where (Location):	4th Street between Howard and Folsom





No.	Materials	Days	Qty	Unit	Unit Price	Extension
1						
2	Repair Mortar (SikaTop123 kits)		4.00	EA	\$ 38.07	\$ 152.28
3						
4						
5						
	<b>Sub-total 1</b>					<b>\$ 152.28</b>
	Sales Tax @ 8.5%					\$ 12.94
	<b>Sub-total 2</b>					<b>\$ 165.22</b>
	Shipping @ 2%					\$ 3.30
	<b>Total</b>					<b>\$ 168.53</b>
	<b>Unit priced items / Force Account</b>		<b>ITEM</b>	<b>RATE</b>	<b>QTY</b>	<b>Extension</b>
1						\$ -
2						\$ -
3						\$ -
4						\$ -
5						\$ -
6						\$ -
7						\$ -
8						\$ -
9						\$ -
10						\$ -
	Additional overhead Costs for Time Extension			\$ -		\$ -
	<b>Total</b>					<b>\$ -</b>
	<b>Permits and Fees/ Subcontractors</b>	<b>Times</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Extension</b>
1	Dump Fee		1.00	LS	\$ 240.00	\$ 240.00
2						
3						
4						
5						
	<b>Total</b>					<b>\$ 240.00</b>



On Jun 26, 2012, at 1:34 PM, Tom Reimer <[reimer.rhf@gmail.com](mailto:reimer.rhf@gmail.com)> wrote:

Donovan,

Michael Lightstone has given his approval for Synergy crews to demolish the concrete duct bank in new manhole 1495 on 4th street south of Howard.

The cost includes duct bank demo and debris removed and disposed of. North wall conduit ends cleaned and south wall patched and conduits sealed (with the exception of the fiber conduit). As discussed; there is a live city 911 fiber optic cable within this conduit bank that your crews must work around carefully to avoid damage. PG&E is not responsible for damages should any occur.

The force account charge to the 1252 job not to exceed \$5k including labor, equipment and materials.

Mike Denning is planning to have his crews reroute the city fiber on Thursday night provided your crews finish by mid day Thursday.

Please let me know by close of business today you have any objection.

Thanks,  
Tom Reimer  
E.E.I. contract electric inspector, PG&E  
707 508-7408

Begin forwarded message:

**From:** "Lightstone, Michael" <[MxLd@pge.com](mailto:MxLd@pge.com)>  
**Date:** June 26, 2012 1:18:26 PM PDT  
**To:** "'Tom @ RHF'" <[reimer.rhf@gmail.com](mailto:reimer.rhf@gmail.com)>  
**Cc:** "Hong, Richard T" <[RTH7@pge.com](mailto:RTH7@pge.com)>, "Evans, Kenny A" <[KAE4@pge.com](mailto:KAE4@pge.com)>  
**Subject:** RE: Fiber work on 4th Street

Tom:

I approve our having Synergy complete the demo of this duct bank and charging the work to 1252.

Thanks.

Michael

HD SPLY WHITE CAP #17  
260 JENNINGS STREET  
SAN FRANCISCO, CA 94124



**White Cap**  
CONSTRUCTION SUPPLY

www.whitecapdirect.com

TERMINAL ID:  
MERCHANT #:

089581521  
451048578994

INVOICE NO. 17395913

VISA  
#XXXXXXXXXX 1234 5678  
SALE  
BATCH: 000525  
DATE: DEC 13, 11  
SD: 026 : 25

124  
12/13/11  
\$1777.27  
\$150.66



SALE TAX  
TOTAL

SHIP TO: CASH/ SYNERGY PROJECT NG  
CASH/ SYNERGY PROJ  
150 EXECUTIVE PARK BLVD  
SUITE 4750  
SAN FRANCISCO CA 941343340  
RECEIVED BY: TOMMY GASCA/AP  
JOB#

CA 94134-3340

1 ADPT TO RT  
RECORDING



BY: RYAN: 7074747912

415-467-3000

ORDER NO	ORDER DATE	INVOICE DATE	JOB NO.	CUSTOMER	P.O. NO.	GLSMN
17424071	12/13/11	12/13/11	190345	CASH/ SYNERGY PROJ	1713	

TERMS	SHIP VIA/ROUTING	DATE REQUESTED	SHIPPED	LOC	TAKEN BY
C.O.D.	SI READY WILL CALL	12/13/11		17	FOREL

LN	PART NUMBER	QTY ORD	QTY SHP	QTY ICK	PRICE	U/M	AMOUNT
RIN	H/M DESCRIPTION			SHIP UNITS			DISC%
10	26385810S Y2201	24	EA	24	2.09	EA	50.16
	CLEAR ITEK SAFETY GLASSES						T
20	43818030 Y1201	40	KIT	40	38.07	KIT	1,522.00
	KIT SIKATOP 123+ REPAIR MORTAR INCLUDES 1 GAL PART B PER BAG						T
30	43818230 B0601	1	KIT	1	191.32	KIT	191.32
	3.5GAL 3 PART KIT SIK ARMATEC 110 PART A&B LIQUID IN BOX & PART C BAG						T
40	2117416SD1 B0105	15	EA	15	.5292	EA	7.94
	3/8"X5" SD1 POWERSTUD+						T

SUBTOTAL 1,772.22  
TAX 8.500% 150.66  
INVOICE AMOUNT 1,922.88  
LESS SHIPPED DEPOSIT 1,922.88  
AMOUNT DUE .00

SHIPPED DEPOSIT PAID BY CREDIT CARD 1,922.88

SHIPPED WEIGHT 2260.14

SIGN *Tommy Gasca*  
PRINT Tommy Gasca

0025  
JOC 04-002  
BEAM REPAIR

# QUOTATION SHEET

**Date:** 7/6/2012

**Expires:** 8/6/2012

**Page** 1 of 1

**Attn:** Ryan

**Tel:**

**Fax:**

**Company Name:** Synergy Project Management

**Project Name:** Central Subway Project (Job No. 1252)

**Project Site:** San Francisco

**F.O.B Plant Site:**

MATERIALS DESCRIPTION	ITEM NO.	ESTIMATED QUANTITY	PRICE PER UNIT
Sand		per ton	\$8.00 per ton
Dump fees (conc/asphalt)		per load	\$240 per load

**CTB, ASPHALT/CONCRETE:** LOADS MUST BE FREE OF WASTE, DEBRIS, REBAR, BRUSH, WEEDS, PLASTERBOARD, TRASH OR RUBBISH.

**\*\*POSITIVELY NO HAZARDOUS WASTE ACCEPTED\*\***

All prices are net per ton, not including tax. Payment due 30 days from the date of invoice. Please note that the items bid may be subject to price change after the quote expiration date. Brisbane Recycling Co., Inc. requires confirmation of low materials supplier from apparent low bidder no later than one (1) day after bid opening. Job material schedule outline is required two weeks before the start of the project and updating is required throughout. This is the responsibility of the contractor to keep Brisbane Recycling Co., Inc. fully updated on material needs on a daily basis if necessary. It is also the responsibility of the contractor and driver to correctly identify material and job description. Quote honored only if these conditions are signed by the contractor prior to the start of work.

\_\_\_\_\_  
**SYNERGY PROJECT MANAGEMENT**  
 (Purchaser's Company Name)

\_\_\_\_\_  
**BRISBANE RECYCLING CO., INC.**

\_\_\_\_\_  
 (Signature of Authorized Representative)

\_\_\_\_\_  
 (Signature of Authorized Representative)

DATE SIGNED: \_\_\_\_\_

DATE SIGNED: \_\_\_\_\_

**\*\* Quote is only valid for amount requested. Anything less will be priced accordingly.**

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV

## EVALUATION of MERIT

### COR 029

**Recommendation:** Accept justification for merit of COR 029. Scaffolding not indicated on the contract drawings interfered with contract utility demolition and guidewall installation for the north Moscone headwall.

**Facts:** Utility demolition and guidewall construction for the north Moscone headwall could not commence until neighboring business Todco's scaffolding was removed. The scaffolding was not anticipated or indicated on the contract drawings and was properly permitted through SFDPW.

**Rationale for COR:** The purpose of the scaffolding is protection of pedestrians during window removal and replacement during renovation of Todco's buildings. The scaffolding, had to be removed to facilitate utility demolition and guidewall installation. (1252 construction was temporarily suspended for a three day period when window removal and replacement was being conducted by Todco's contractor.) When construction sequencing required that sidewalk pedestrian traffic be restored, the scaffolding had to be replaced.

**Justification:** The following additional activities were required to be performed in order to complete the utility demolition and guidewall installation: removal and replacement of Todco's scaffolding.

By:

  
Sarah Wilson  
Resident Engineer

10/10/12  
Date

  
Configuration Management Board  
Approval

10/10/12  
Date

# Barnard Impregilo Healy JV

TRANSMITTAL

No. 00586

PO BOX 78270  
San Francisco, CA 94107

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

**PROJECT:** Contract 1252 - Tunnels

**DATE:** 8/28/2012

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

**REF:** COR #029  
MOS - Todco Scaffolding  
Reimbursement

**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 checked="" 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	<b>SENT VIA:</b>	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Returned for Corrections
<input type="checkbox"/> Other:	<input type="checkbox"/> Separate Cover Via:	<input type="checkbox"/> Due Date:

ITEM NO.	COPIES	DATE	ITEM NUMBER	REV. NO.	DESCRIPTION	STATUS
1	1	8/28/2012			COR #029	NEW

**Remarks:** Attached is one (1) hard copy of change order request (COR) #029 - (MOS - Todco Scaffolding Reimbursement).

CC:

Signed:

  
Jack William Sucilsky



## CHANGE ORDER REQUEST FORM

420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822

Third Street Lightrail Program Phase 2 - Central Subway Project  
CONTRACT 1252

10/9/2012

COR # 029: MOS Scaffolding

### GENERAL:

The original change order request (COR) 029 package was submitted to the SFMTA prior to Barnard Impregilo Healy Joint Venture (BIHJV) being made aware that a specific COR form existed. BIHJV has completed and submitted this form retroactively as requested by the SFMTA in an effort to facilitate the processing of COR's.

### DIRECT COST IMPACTS:

The direct cost impact is equal to \$1,717.83.

### TIME IMPACTS:

There were no time impacts that will affect the critical path of the project in regards to this differing site condition.

### WHAT (DESCRIPTION OF COR):

Additional costs incurred by BIHJV as a result of having to remove and replace a pedestrian canopy from the northwest Moscone sidewalk in order to allow utility demolition and headwall construction to commence. The presence of scaffolding equipment was not contemplated at the time of bid and constitutes a differing site condition. The SFMTA, BIH and Fine Line Construction mutually agreed to a price for this work as indicated on the Fine Line Construction Proposal dated June 14, 2012. Fine Line construction performed the work.

### WHY (REASON FOR COR):

BIHJV was unable to perform utility demolition and headwall construction at the northwest Moscone headwall location due to the presence of scaffolding equipment, utilized by Fine Line Construction, located directly over the headwall. Fine Line Construction provided a quote to remove and replace the scaffolding equipment as required to allow BIHJV to commence work at this location.

### WHERE (LOCATION/STATION):

The western sidewalk along Fourth Street near Clementina Street between CTL station 153+00 to CTL station 153+20.

### WHEN (OCCURRENCE DATE, ACTION DATE):

Fine Line Construction prepared a proposal for this work dated June 14, 2012. The scope of work was performed during the week of June 14, 2012.

### HOW (RECOMMENDATION OF ACTION):

BIH paid Fine Line Construction the amount indicated on the Fine Line Construction invoice Proposal #1, Job #6011, dated June 14, 2012. The SFMTA agreed to reimburse BIHJV for this cost prior to BIHJV incurring this cost.

SPEC REF:

Technical Specifications Section 02 41 00 (Demolition)

APPLICABLE DRAWINGS:

Volume 1 dwg UD - 402

Jack Sucilsky

Project Engineer

Date: October 9, 2012

PREPARED BY:

Contractor's Representative (Name, Title)



**BARNARD  
IMPREGILO  
HEALY** JOINT VENTURE

## **BARNARD IMPREGILO HEALY JOINT VENTURE**

---

420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822

### **CHANGE ORDER REQUEST**

**Third Street Light Rail Phase 2 – Central Subway Project  
Contract No. 1252**

**COR: 029**

**DATE: August 28, 2012**

**TITLE: MOS – Todco Scaffolding Reimbursement**

#### **Issues:**

This Change Order Request (COR) is for additional cost incurred by Barnard Impregilo Healy Joint Venture (BIHJV) as a result of having to remove and replace a pedestrian canopy from the northwest Moscone sidewalk in order to allow headwall construction to commence. The presence of scaffolding equipment was not contemplated at the time of bid and constitutes a differing site condition. The SFMTA, BIH and Fine Line Construction mutually agreed to a price for this work as indicated on the Fine Line Construction Proposal dated June 14, 2012.

#### **Impacts:**

BIHJV was unable to commence construction at the northwest Moscone headwall location due to the presence of scaffolding equipment, utilized by Fine Line Construction, located directly over the headwall. Fine Line Construction removed and will replace the scaffolding equipment once BIHJV completes headwall work at this location.

#### **Scope:**

This COR includes costs incurred by BIHJV as outlined above. A detailed breakdown of these costs includes:

##### **1.) Removal and Replacement of Scaffolding Equipment:**

Fine Line Construction removed and will replace the scaffolding equipment that was in conflict with the northwest Moscone headwall construction for the price indicated on the June 14, 2012 proposal. BIHJV paid for Fine Line Construction to perform this work. The SFMTA agreed to reimburse BIHJV for this cost.

#### **Time Impact Analysis (TIA):**

BIHJV will not submit a TIA for this differing site condition as it did not impact the project's critical path.

#### **Exclusions:**

This COR includes costs for only those items specifically described in the Scope section above.



# BARNARD IMPREGILO HEALY JOINT VENTURE

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420 Fourth Street San Francisco, CA 94107, PH (415) 546-0799, FX (415) 546-3822

Third Street Lightrail Program Phase 2 - Central Subway Project  
CONTRACT 1252

10/9/2012

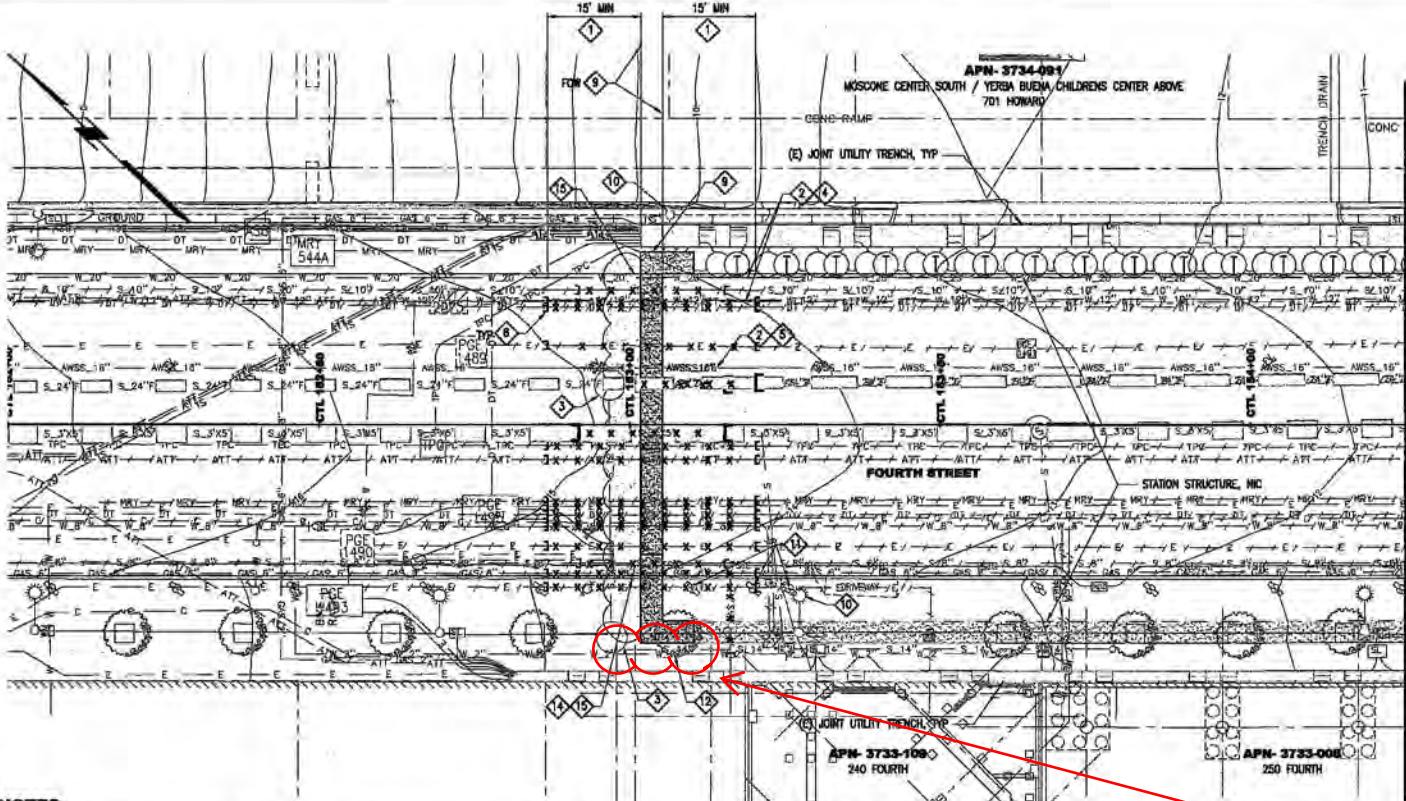
COR 029: MOS - Todco Scaffolding Reimbursement

## Conflict - T&M Mark-up Summary

---

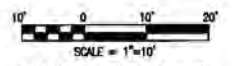
	Total
Direct Costs	
Labor	\$0.00
Labor Markup at Specified 15%	\$0.00
Equipment	\$0.00
Equipment Markup at Specified 15%	\$0.00
Materials	\$0.00
Materials Markup at Specified 15%	\$0.00
Other Items And Expenditures	\$0.00
Other Items And Expenditures Markup at Specified 15%	\$0.00
Subcontractors	\$1,609.00
Contractors Markup at Specified 5%	\$80.45
Total Project Costs	\$1,689.45
BIHJV Payment & Performance Bonds & Builder's Risk Insurance (1.68%)	\$28.38
Total Amount	\$1,717.83

---



MAISON LANE  
SEE UT-400

Scaffolding location which was removed and replaced in order to commence utility demolition and headwall construction.



CONFORMED

**NOTES:**

- DEMOLISH AND REMOVE ALL ABANDONED UTILITY FACILITIES, INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS, AT JET GROUT OR HEADWALL LIMIT.
- ACTIVE UTILITIES SHALL BE MAINTAINED UNTIL RELOCATION OR CUT OVER, UNLESS OTHERWISE NOTED. COORDINATE DEMOLITION WITH HEADWALL CONSTRUCTION PHASING.
- PROTECT (E) SEWER.
- SEE (WD) DRAWINGS FOR ABANDONMENT AND REMOVAL OF WATER FACILITIES.
- SEE (AW) DRAWINGS FOR ABANDONMENT AND REMOVAL OF AWSS FACILITIES.
- PROTECT (E) AT&T FACILITIES.
- PROTECT (E) JOINT TRENCH.
- CAP OR PLUG ALL ABANDONED FACILITIES INCLUDING PREVIOUSLY ABANDONED FACILITIES NOT SHOWN ON PLANS AT JET GROUT LIMIT.
- PROPOSED STATION HEADWALL. SEE (ES) DRAWINGS FOR LOCATION AND DETAILS SEE. CONTRACTOR SHALL VERIFY THE HEADWALL LOCATION PRIOR TO COMMENCEMENT OF DEMOLITION.
- TEMPORARILY REMOVE (E) STREET LIGHT IF NECESSARY FOR CONSTRUCTION AND REINSTALL AFTER HEADWALL CONSTRUCTION.
- (E) PARKING METERS. CONTACT DPT IF DEMOLITION IS REQUIRED. SEE CONTRACT SPECIFICATIONS FOR MORE INFORMATION. IF REMOVED, REINSTALL IN SAME LOCATION AFTER HEADWALL CONSTRUCTION.
- REMOVE (E) TREE AS CONTRACTOR'S PROPERTY. PRIOR TO REMOVAL CONFIRM STREET TREE REMOVAL PERMIT WAS OBTAINED.
- SEE (UT) DRAWINGS FOR TEMPORARY REMOVAL OF SEWER.
- REMOVE (E) CURB AND GUTTER AS NECESSARY AND REINSTALL AFTER HEADWALL CONSTRUCTION.
- SEE (PD) & (RP) FOR PAVEMENT REMOVAL AND RESTORATION.

\\S:\shen03\m544\1\FinalDesign\Drawing-821\2-Civil\Utility Demolition\Sheet File CP03.M544230402.dwg P:Boylan Wed Jan 26, 2011 1:57 pm UD-402

				CITY AND COUNTY OF SAN FRANCISCO <b>MUNICIPAL TRANSPORTATION AGENCY</b>		THIRD STREET LIGHT RAIL PROGRAM PHASE 2 - CENTRAL SUBWAY TUNNELS		CONTRACT NO. <b>1252</b>	
				APPROVED  EXECUTIVE DIRECTOR/CEO		UTILITY DEMOLITION MOSCONE STATION CTL 152+00 TO 154+25		CIVIL ENGINEER NO. <b>CL-18029</b>	
DATE: 01/21/2011 ISSUED FOR: BID		PREPARED BY: [Signature] CHECKED BY: [Signature] DATE: JAN 21 2011				DRAWING NO. <b>UD-402</b>		REVISION <b>0</b>	

FINE LINE CONSTRUCTION  
943 HOWARD STREET  
SAN FRANCISCO, CA 94103

Proposal  
NO. 1

Owner Representative:  
Michael Neumann

Job #: 6011

Project Name & Location:  
Wolf House Apartments  
801 Howard Street

DATE: 06/14/12

Fine Line Construction hereby submits an authorization for a change in the scope of work as covered under the contract documents. The description and cost of the proposed change is outlined below.  
If this request is found to be satisfactory, please sign and return authorization to our office, either by sending it to us by Fax at 415-512-7688, hand delivery, or mail.

**DESCRIPTION & COST:**

The attached change order represents the costs associated with:  
Due to MTA side walk work: Removal of pedestrain canopy from sidewalk at the TODCO offices to Clemintena. Reinstall 20' of pedestrian canopy after MTA work is complete.

**NOTES & CLARIFICATIONS:**

\*\*\* This change order is inclusive of only that which is mentioned . \*\*\*\*

PRICE:	\$1,609
--------	---------

**REQUESTED EXTENSION OF TIME: 0 DAYS** Fine Line Construction reserves the right to request a time extension at a later date should it be determined that the additional work in this change order created a time impact to the critical path of the contract schedule.

**ATTACHMENTS:** Back up sheet and....

\*\*\* Work will not proceed without written authorization/CHANGE ORDER

\*\*\*  
Fine Line Construction  
California License No. 451707  
Copy to:

Approved By: \_\_\_\_\_

Submitted by: Doree Friedman

Title: \_\_\_\_\_

Title: Project Manager

Date: \_\_\_\_\_

Date: 06/14/12

File

UPON AUTHORIZED SIGNATURE, RETURN ONE COPY TO Fine Line Construction



51 San Gabriel Drive, Fairfax, CA 94930 • Tel (415) 457-7725 • Fax (415) 457-7703 • Lic# 674446

To: FINE LINE CONSTRUCTION Date: 6/14/12  
943 HOWARD STREET  
SAN FRANCISCO CA. 94103  
Contact: PABLO FRIEDMAN  
Telephone: (415) - 512 - 7677 Fax: (415) 512-7688

Project Name: REINSTALL PEDESTRIAN CANOPY  
Address: 801 HOWARD ST. SAN FRANCISCO CA. (4TH ST. SIDE)  
Bid date: 6/14/12

**SCAFFOLDING CONTRACT**

M.J. Buttler, Incorporated (the "Company") and FINE LINE CONSTRUCTION (the "Customer"), enter into this Contract in which the Company will provide equipment, rental, or purchase and/or labor under the terms set for below:

1. Job Description

FURNISH & ERECT PEDESTRIAN CANOPY SCAFFOLD  
20 LINEAL FEET.

2. Price and Payment Terms

FIRST MONTH (28 DAYS) 580.<sup>00</sup>  
EACH MONTH THEREAFTER 80.<sup>00</sup>  
TERMS - SEE BELOW

Company will invoice Customer on a monthly basis. Payments not received by company within 15 days of the invoice date will be delinquent. In the event a payment becomes delinquent, Customer shall pay a late fee of one and one-half percent (1 ½%) per month, and Company may, in addition to any other remedies available under this Contract or by law, enter upon the premises where the Equipment is located and repossess it without legal process.

3. General Terms and Conditions:

The following circled items apply to this Contract

- a. Permits by Customer
- b. Relocation of electrical power lines by customer
- c. M.J. Buttler, Inc. current insurance policies in effect. Additional insurance and or endorsements, if available will cost extra.
- d. Base conditions assumed strong enough for imposed scaffold loads. Compaction and or shoring of base areas by customer.
- e. Patching of scaffold ties by customer
- f. Damage exclusions including but not limited to personal property (vehicles, art work and miscellaneous items), fixed improvements, (landscaping, driveways, sidewalks, plumbing, electrical, roofing, walls and miscellaneous items). M.J. Buttler, Inc. will exercise reasonable care while working on or around the above-mentioned items and M.J. Buttler, Inc. must be held harmless for damage.

4. Warranty Disclaimer

Company makes no warranties, express or implied, as to the merchantability of the Equipment or its fitness for any particular purpose, except Company warrants that the Equipment is in good condition when delivered.

5. Customer's Obligation / Indemnification

- (a) Customer is SOLELY RESPONSIBLE FOR THE SAFE AND PROPER USE, OPERATION, AND MAINTENANCE OF THE EQUIPMENT IN CONFORMITY WITH ALL APPLICABLE SAFETY STANDARDS, LAWS AND REGULATIONS, INCLUDING FEDERAL AND STATE O.S.H.A. REQUIREMENTS.
- (b) Customer shall inspect all Equipment delivered pursuant to this Contract, and shall notify Company and confirm in writing within two days of delivery if the Equipment or any part thereof, was not delivered in good condition and repair, or clean and free of hazardous material contamination. In the absence of such notification and written confirmation, Equipment delivered to Customer pursuant to this Contract will be deemed accepted by Customer and acknowledged to be in good condition and repair and clean and free of hazardous material contamination. Hazardous material contamination includes, but is not limited to asbestos, and any other substances deemed toxic or hazardous under local, state or federal law.
- (c) Customer shall not modify or alter any rented Equipment without the prior written consent of the Company. The terms "modify" and "alter" shall include, but are not limited to cutting or removing scaffold ties, draping or otherwise covering the scaffolding, or any other act that would undermine the base support and / or structural integrity of the scaffolding.
- (d) Except for the intentional misconduct of the Company, Customer agrees to defend, hold harmless and indemnify Company, its agents, employees, directors and shareholders from any and all claims, lawsuits, damages, liabilities, and expenses (including attorneys fees) which relate to or arise out of the Equipment and its erection, use, operation, maintenance, possession, or dismantling.

6. Customer's Breach

If Customer breaches this Contract, including the General Terms and Conditions, Company shall have the right: (a) to terminate this Contract; (b) to declare the entire rental or purchase price, as applicable, immediately due and payable, and to pursue all legal remedies to obtain payment thereof; (c) to enter upon the premises where the Equipment is located and to repossess it without legal process; (d) seek indemnification from Customer for detriment caused to Company on account of said breach; or (e) to pursue any further remedies legally available to Company.

7. Notification



Customer shall notify Company immediately, but not more than twelve (12) hours after, the disappearance or theft of the Equipment, or any injury to person or property which is claimed or appears to involve the Equipment at the telephone number set forth above, or in such a manner as the Company shall from time to time direct.

8. Miscellaneous

- (a) This Contract shall be interpreted according to California law. Any proceedings to enforce or interpret or otherwise arising out of this Contract, shall be in Marin County, California, and the prevailing party shall be entitled to recover reasonable attorney fees.
- (b) Contractors are required by law to be licensed and regulated by the Contractor State License Board, which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning the contractor may be referred to the Registrar, Contractors State License Board, Post Office Box 26000, Sacramento, California 95826.

9. License Information

State law requires anyone who contracts to do construction work to be licensed by the Contractors State License Board in the license category in which the contractor is going to be working – if the total price of the job is \$500.00 or more (including labor and materials).

Licensed contractors are regulated by laws designed to protect the public. If you contract with someone who does not have a license, the Contractors State License Board may be unable to assist you with a complaint. Your only remedy against an unlicensed contractor may be in civil court, and you may be liable for damages arising out of any injuries to the contractor or his or her employees.

You may contact the Contractors State License Board to find out if this contractor has a valid license. The Board has complete information on the history of licensed contractors, including any possible suspensions, revocations, judgments, and citations. The Board has offices throughout California. Please check the government pages of the White Pages for the office nearest you or call 1-800-321-CSLB for more information.

**ACCEPTANCE OF CONTRACT:** The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above. It is understood and agreed that this is work not provided for in any other agreement and no contractual rights arise until this Contract is accepted in writing.

M.J. Buttler, Incorporated  
51 San Gabriel Drive  
Fairfax, CA 94930  
License No. 674446

By:   
Michael J. Buttler, President

Date: 6/14/12

**"Customer"**

Name: \_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_



Dear Valued Customer:

Thank you for selecting MJ Buttler Incorporated for your scaffolding needs. The following information is provided so you may clearly understand our business operations, policies and procedures.

**Contract** – The MJ Buttler Incorporated contract and related documents including job specific terms and conditions must be signed before work commences.

**Construction / Safety** – Physical construction will be as specified in the MJ Buttler Incorporated contract and related documents. California OSHA and any specific city ordinances govern our work and safety standards. Safety considerations will be paramount and always take priority over all other aspects of the project.

**Billing** – Terms are COD. Invoices are due in advance of each rental month.  
First Month (28 days or less)  
Each month thereafter (28 days)  
Last month is amortized to the day

**Scheduling / Work Conditions** – MJ Buttler Incorporated and its crew are able to work under most conditions except rain, ice, high wind or dangerous activities. In addition, minimum clearance to PG&E high voltage lines must be met and no exceptions will be made.

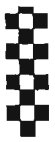
**Permits** – Customer must obtain permits at their expense if required.

We look forward to doing business with you.

Sincerely,

A handwritten signature in black ink that reads "Michael Butler". The signature is written in a cursive style and is positioned below the word "Sincerely,".

51 Gabriel Drive, Fairfax, CA 94930  
Phone (415) 457-7725 / Fax (415) 457-7703



DATE: 10/14/12

TO: FINE LINE CONSTRUCTION  
943 HOWARD STREET  
SAN FRANCISCO CA 94103  
 Attention: MANDY GROSSI  
 Fax Number: (415) 512-7688  
 Phone Number: (415) 512-7677

FROM: Michael Buttler  
 Fax Number: 415-457-7703  
 Phone Number: 415-457-7725

Number of Pages including this cover: 9

Reference: PROPOSALS/CONTRACTS FOR ADDITIONAL  
WORK ON PEDESTRIAN CANOPY

Comments:  
MANDY - HERE IS MY PRICE FOR THE WORK  
YOU DESCRIBED IN YOUR E MAIL DATED 6/13/12.  
I WILL FOLLOW UP WITH A CHANGE ORDER IF YOU GO  
AHEAD WITH THE WORK.

BEST REGARDS  
Michael Buttler

51 San Gabriel Drive, Fairfax, CA 94930 • Tel (415) 457-7725 • Fax (415) 457-7703 • Lic# 674446

To: FINE LINE CONSTRUCTION  
943 HOWARD STREET  
SAN FRANCISCO CA 94103

Date: 6/14/12

Contact: PAOLO FRIEDMAN

Telephone: (415) 512-7677

Fax: (415) 512-7688

Project Name: REMOVE PEDESTRIAN CANOPY

Address: 801 HOWARD ST SAN FRANCISCO (4TH ST. SIDE)

Bid date: 6/14/12

**SCAFFOLDING CONTRACT**

M.J. Buttler, Incorporated (the "Company") and FINE LINE CONSTRUCTION (the "Customer"), enter into this Contract in which the Company will provide equipment, rental, or purchase and/or labor under the terms set for below:

1. Job Description

REMOVE PEDESTRIAN CANOPY FROM TODCO OFFICE  
TO CLEMINTENA (4TH ST. SIDE).

BID CONDITIONS: NONE

2. Price and Payment Terms

FIRST MONTH NO RENT LABOR ONLY 780.00

TERMS - SEE BELOW

Company will invoice Customer on a monthly basis. Payments not received by company within 15 days of the invoice date will be delinquent. In the event a payment becomes delinquent, Customer shall pay a late fee of one and one-half percent (1 1/2%) per month, and Company may, in addition to any other remedies available under this Contract or by law, enter upon the premises where the Equipment is located and repossess it without legal process.

3. General Terms and Conditions:

The following circled items apply to this Contract

- a. Permits by Customer
- b. Relocation of electrical power lines by customer
- c. M.J. Buttler, Inc. current insurance policies in effect. Additional insurance and or endorsements, if available will cost extra.
- d. Base conditions assumed strong enough for imposed scaffold loads. Compaction and or shoring of base areas by customer.
- e. Patching of scaffold ties by customer
- f. Damage exclusions including but not limited to personal property (vehicles, art work and miscellaneous items), fixed improvements, (landscaping, driveways, sidewalks, plumbing, electrical, roofing, walls and miscellaneous items). M.J. Buttler, Inc. will exercise reasonable care while working on or around the above-mentioned items and M.J. Buttler, Inc. must be held harmless for damage.

4. Warranty Disclaimer

Company makes no warranties, express or implied, as to the merchantability of the Equipment or its fitness for any particular purpose, except Company warrants that the Equipment is in good condition when delivered.

5. Customer's Obligation / Indemnification

- (a) Customer is SOLELY RESPONSIBLE FOR THE SAFE AND PROPER USE, OPERATION, AND MAINTENANCE OF THE EQUIPMENT IN CONFORMITY WITH ALL APPLICABLE SAFETY STANDARDS, LAWS AND REGULATIONS, INCLUDING FEDERAL AND STATE O.S.H.A. REQUIREMENTS.
- (b) Customer shall inspect all Equipment delivered pursuant to this Contract, and shall notify Company and confirm in writing within two days of delivery if the Equipment or any part thereof, was not delivered in good condition and repair, or clean and free of hazardous material contamination. In the absence of such notification and written confirmation, Equipment delivered to Customer pursuant to this Contract will be deemed accepted by Customer and acknowledged to be in good condition and repair and clean and free of hazardous material contamination. Hazardous material contamination includes, but is not limited to asbestos, and any other substances deemed toxic or hazardous under local, state or federal law.
- (c) Customer shall not modify or alter any rented Equipment without the prior written consent of the Company. The terms "modify" and "alter" shall include, but are not limited to cutting or removing scaffold ties, draping or otherwise covering the scaffolding, or any other act that would undermine the base support and / or structural integrity of the scaffolding.
- (d) Except for the intentional misconduct of the Company, Customer agrees to defend, hold harmless and indemnify Company, its agents, employees, directors and shareholders from any and all claims, lawsuits, damages, liabilities, and expenses (including attorneys fees) which relate to or arise out of the Equipment and its erection, use, operation, maintenance, possession, or dismantling.

6. Customer's Breach

If Customer breaches this Contract, including the General Terms and Conditions, Company shall have the right: (a) to terminate this Contract; (b) to declare the entire rental or purchase price, as applicable, immediately due and payable, and to pursue all legal remedies to obtain payment thereof; (c) to enter upon the premises where the Equipment is located and to repossess it without legal process; (d) seek indemnification from Customer for detriment caused to Company on account of said breach; or (e) to pursue any further remedies legally available to Company.

7. Notification

Customer shall notify Company immediately, but not more than twelve (12) hours after, the disappearance or theft of the Equipment, or any injury to person or property which is claimed or appears to involve the Equipment at the telephone number set forth above, or in such a manner as the Company shall from time to time direct.

8. Miscellaneous

- (a) This Contract shall be interpreted according to California law. Any proceedings to enforce or interpret or otherwise arising out of this Contract, shall be in Marin County, California, and the prevailing party shall be entitled to recover reasonable attorney fees.
- (b) Contractors are required by law to be licensed and regulated by the Contractor State License Board, which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning the contractor may be referred to the Registrar, Contractors State License Board, Post Office Box 26000, Sacramento, California 95826.

9. License Information

State law requires anyone who contracts to do construction work to be licensed by the Contractors State License Board in the license category in which the contractor is going to be working – if the total price of the job is \$500.00 or more (including labor and materials).

Licensed contractors are regulated by laws designed to protect the public. If you contract with someone who does not have a license, the Contractors State License Board may be unable to assist you with a complaint. Your only remedy against an unlicensed contractor may be in civil court, and you may be liable for damages arising out of any injuries to the contractor or his or her employees.

You may contact the Contractors State License Board to find out if this contractor has a valid license. The Board has complete information on the history of licensed contractors, including any possible suspensions, revocations, judgments, and citations. The Board has offices throughout California. Please check the government pages of the White Pages for the office nearest you or call 1-800-321-CSLB for more information.

**ACCEPTANCE OF CONTRACT:** The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above. It is understood and agreed that this is work not provided for in any other agreement and no contractual rights arise until this Contract is accepted in writing.

M.J. Butler, Incorporated  
51 San Gabriel Drive  
Fairfax, CA 94930  
License No. 674446

By: Michael Butler  
Michael J. Butler, President

Date: 6/14/12

“Customer”

Name: \_\_\_\_\_

By: \_\_\_\_\_

Print Name:

Address: \_\_\_\_\_

Date: \_\_\_\_\_



Dear Valued Customer:

Thank you for selecting MJ Buttler Incorporated for your scaffolding needs. The following information is provided so you may clearly understand our business operations, policies and procedures.

**Contract** – The MJ Buttler Incorporated contract and related documents including job specific terms and conditions must be signed before work commences.

**Construction / Safety** – Physical construction will be as specified in the MJ Buttler Incorporated contract and related documents. California OSHA and any specific city ordinances govern our work and safety standards. Safety considerations will be paramount and always take priority over all other aspects of the project.

**Billing** – Terms are COD. Invoices are due in advance of each rental month.  
First Month (28 days or less)  
Each month thereafter (28 days)  
Last month is amortized to the day

**Scheduling / Work Conditions** – MJ Buttler Incorporated and its crew are able to work under most conditions except rain, ice, high wind or dangerous activities. In addition, minimum clearance to PG&E high voltage lines must be met and no exceptions will be made.

**Permits** – Customer must obtain permits at their expense if required.

We look forward to doing business with you.

Sincerely,

A handwritten signature in black ink that reads "Michael Butler". The signature is written in a cursive style and is positioned below the word "Sincerely,".

51 Gabriel Drive, Fairfax, CA 94930  
Phone (415) 457-7725 / Fax (415) 457-7703

## CHANGE ORDER REQUEST NUMBER 21

SFMTA Contract No. 1252  
Central Subway Tunneling

Contractor: Barnard Impregilo Healy JV  
PO Box 78270  
San Francisco, CA 94107

### SUMMARY RECORD OF NEGOTIATIONS (COR #21)

#### Timeline of Negotiations:

SFMTA and Barnard Impregilo Healy JV (BIH) held a number of discussions regarding a reduction in the 1252 UMS activity durations which would mutually benefit SFMTA and BIH. On 04/06/2012 SFMTA received a letter dated 04/02/2012 from Barnard Impregilo Healy JV (BIH) on behalf of their subcontractor Condon Johnson & Associates (CJA) outlining their proposal to "Reduce the UMS construction duration." This letter was followed by further letter correspondence and meetings, and the parties eventually agreed to the following:

- Elimination of Surface Restoration Work: Eliminate street (PCC street base with 2" of AC wearing course) and sidewalk surface (3.5" PCC sidewalk along with associated curb, gutter and tactile warning strip quantities) restoration work requirements contained on Contract plan pages RP-112 and RP-113.
- Utility Protection Work: Monitoring of AT&T Vault #124 as required to detect and mitigate any possible settlement and resulting damage. Additionally, potholing/chipping/bundling of AT&T ductbanks within headwall areas to protect live utilities.
- Modified Full Closure of Stockton Street: Modify Contract traffic control plans and specifications so as to allow for the full closure on Stockton Street to all vehicular traffic. The modified traffic control plan along Stockton Street is attached for reference. Implementation of these changes will replace traffic control plans as indicated on Contract plan pages TR-011 through TR-012 and TR-015 through TR-016. This closure will remain in effect throughout the Contractor's excavation and ground support phase as well as during the jet grouting phase, *and headwall construction.*
- Modifications to Jet Grouting Procedures: Current Contract specifications stipulate that "jet grouting shall be installed after secant/tangent pile headwall is in place" (Section 31 62 13.15 3.05 A). This Contract Modification eliminates this Contract requirement thereby permitting installation of jet grouting prior to completion of headwalls. This Contract Modification also eliminates the Contract requirement that the spoils from the jet grouting procedure be disposed of offsite. In lieu of offsite dumping, the Contractor shall construct temporary spoil pits within the construction area.
- Contractor's Use of BART Annex: Permit the Contractor to use the BART Annex as a temporary construction office and/or material storage area.

#### Conditions of Change Associated with COR No. 21:

- ~~Any remaining CN 1252 work not completed within the modified time frame indicated herein shall be performed in a work area adjacent to, and possibly shared by, the 1253 UMS Station contractor.~~ *REFER TO ART. 5 OF GENERAL PROVISIONS*
- Stockton Street shall be completely closed beginning 7.30.2012 and remain closed through the completion of jet grouting and UMS headwall construction (exclusive of the moratorium period).
- A portion of Ellis Street shall be closed beginning 7.30.2012 and remain closed through the completion



of the related compensation grouting works (exclusive of the moratorium period). One 14 foot lane in the eastbound direction shall be open at all times for through traffic.

- Access for emergency vehicles on Stockton Street will be maintained at all times. Provide 14-foot emergency access for the San Francisco Fire Department.
- No restoration work will be required except that during the moratorium period, non-skid recessed steel plates will be used to cover the excavation area and will be properly inspected and maintained. If there is a lag between Contracts 1252 and 1253, street restoration will be required.
- Restriping of cross walks and relocation of pedestrian signals <sup>MAY</sup> will be required at O'Farrell Street and Geary Street. Traffic signs and devices will be restored after completion of the headwall.
- BIH will be allowed to construct trench(es) for disposal of jet grout spoils which will run lengthwise down Ellis and Stockton Street. The jet grout spoils will be removed and the trench will be backfilled with spoils from the Ellis Street Shaft excavation unless the spoils are classified at a higher (more hazardous) classification than the material that was removed to construct the trench.
- The annexed portion of the BART station shall be made available to BIH no later than ~~09.30.12~~ pending approval of the agreement between SFMTA and BART, for use as a storage and staging area for sensitive equipment and as a field office. BIH shall address the requirements of the BART Temporary Wall Permit, including but not limited to: providing pre- and post- construction surveys of the area; constructing a 2 hour fire rated wall with ½" fire treated plywood (painted finish) full height over wall assembly on the BART side (as detailed in the BART permit application) to prevent the public from entering the work site; physically sealing the area by the end of the second day (Day 2) after taking possession of the site, temporarily sealing any opening (such as with heavy duty plastic) until the wall is fully sealed by Day 2; and covering and protecting the existing escalators with plywood and heavy duty plastic as directed by the Engineer. The SFMTA will provide utilities for office lighting, power and fire sprinklers during the time period that the Contractor utilizes the annex area not to exceed 242 days after NTP for the 1253 UMS Contract. No utility service is provided for any construction activity. *permanent wall - separate mod*
- BIH will interface with CB2, The Jazz Café, The Apple Store, Ghirardelli, Ferrari and other businesses as required to coordinate deliveries on Ellis and Stockton Streets.
- Jet grout may be installed to encompass the entire secant footprint such that secants will achieve full contact with the jet grout. BIH is permitted to improve the ground between specified jet grout cut-off and the surface elevation only for those columns that encompass secant piles, and BIH is permitted to install jet grout prior to secant pile installation. The ground improvement shall not exceed 700 psi compressive strength inside the UMS station footprint. ~~BIH is responsible for cost or schedule consequences related to extra time, effort, and cost required to install initial ground support elements and excavate through the ground improved by jet grouting.~~ *STRIKE OR LIMIT TO IMPACT ON THIS PROJECT ONLY - NOT FUTURE CONTRACT*
- Any required traffic control in addition to what is currently required by the contract shall be reimbursed by the SFMTA.
- In order to protect AT&T and Qwest utilities within the jet grout footprint, special bundling and casing of existing conduits ~~will~~ <sup>MAY</sup> be required prior to jet grout activities. Casing through existing utility vaults to accommodate jet grouting without filling vaults with grout may be required.
- SFMTA authorizes BIH to perform preparatory and utility work necessary for the Union Square/Market Street Station (UMS).

