


Memorandum

CS Memorandum No. 1351

To: Distribution

From: Beverly Ward, CMB/Risk Management Assistant 

Date: February 01, 2013

Reference: Project No. M544.1, Contract No. CS-149
Task No. 1-8.02, Change Control

Subject: Configuration Management Board Meeting No. 112

Attached please find minutes for Configuration Management Board Meeting No. 112 held on January 30, 2013.

Attachments: CMB Meeting No. 112 Rev. 0 Minutes with attachments

Cc: David Kuehn, STV (w/attachments) david.kuehn@stvinc.com
Luis Zurinaga, SFCTA (w/attachments) luis.zurinaga@sfcta.org
Matt Lee, SFCTA (w/attachments) matt@sfcta.org
Shahnam Farhangi, SFMTA (w/attachments)
Roger Nguyen, SFMTA (w/attachments)
Arthur Wong, SFMTA (w/attachments)
Quon Chin, CSP (w/attachments)
Jane Wang, SFMTA (w/attachments)
Chuck Morganson, HNTB/B&C (w/attachments)
Aileen Read, CSDG (w/attachments)
CS File No. M544.1.5.0890

Distribution:

Brad Lebovitz, STV bradley.lebovitz@stvinc.com
John Funghi, SFMTA
Albert Hoe, SFMTA
Joon Park, SFMTA
Richard Redmond, CSP
Ross Edwards, CSP
Eric Stassevitch, CSP
Mark Latch, CSP
Mark Benson, CSP
Beverly Ward, CSP
Sarah Wilson, CSP
Mun Leong, CSP
Ken Barnhart, CSP

CMB Meeting Minutes #112

DATE: January 31, 2013

MEETING DATE: **January 30, 2013**

LOCATION: 821 Howard St, Main Conference Room

TIME: 3:00 PM

ATTENDEES: J Funghi (JF), A. Hoe (AH), J. Park (JP), R. Edwards (RE), R. Redmond (RR), M. Benson (MB), M. Latch (ML), E. Stassevitch (ES), B. Ward (BW), S. Wilson (SW), K. Barnhart (KB), M. Leong (ML), B. Lebovitz (BL)

COPIES TO: Attendees: S. Farhangi (SF), R. Nguyen (RN), A. Wong (AW), J. Wang (JW), Q. Chin (QC), C. Morganson (CM), A. Read (AR), L. Zurinaga (LZ), M. Lee (ML), 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 # 112 – Rev. No. 0

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

ITEM #	DISCUSSION	ACTION BY DUE DATE
1- 12/19/12	1251 – M. Acosta presented a Final Contract Value for CMods 1 through 12 and the remaining contract modification 13 thru 30 for a total value of \$21,107,191. A final Bid Item Analysis determined there are 40 each (\$299,008K) in unused bid items. The RE calculated the General Condition rate of 19.69% costs/credits from under/over usage. In addition the CMB directed the RE to use 15% General Conditions rate instead of the 19.69%. This item will be brought back to the CMB with the revised final contract cost. <i>01/02: The Construction Manager reported the SFMTA Contract Administrator did not agree with the over/under usage for General Condition's rate of 15% and is not prepared to sign off unless evidence of an actual analysis is presented. The CMB directed the RE to write a paragraph of introduction stating that a thorough analysis of CN1250 was done and as in CN1251 the same Contractor same staff and equipment were used and based on that a calculation rate of 18% was reach, so a rate of 15% for general condition over/under will be used in CN1251. Status: 01/30 This item was not discussed at this week's meeting</i>	MB 01/16/13
1- 01/23/13	1251 – M. Benson presented for information Form B Analysis - Final Form B. The Analysis is based on initial Form B estimate established in October 2012. The final Form B established in December 2012 shows the actual cost paid to the Contractor for the scope of Form B work. The differences shown between the Engineers estimate and the final in the Form B are due to an overestimate of the initial Form B amount. The CMB requested that the analysis be revised to show the delta difference in the executive summary, and using the final progress payment the amount paid to date (what we received). <i>01/23: A revised Form B analysis was presented along with a comparison sheet by bid item discipline of the Engineer Estimate, Award, Original, Final Form B and Close Out Modification. The</i>	KB 02/06/13

ITEM #	DISCUSSION	ACTION BY DUE DATE
	<p>Estimator contends that the original Form B calculation was incorrect. Confirmation of the estimators' calculation method was verified by the 1251 Utility Coordinator. The spreadsheet also includes as a separate line item for the contract modifications at 100% on the Final Form B. The CMB requested the Estimator take a look at adding to the Final Form B a percentage for 1) Pavement Restoration - Repaving the street for the Moratorium and putting the sidewalk back twice, 2) Structural – Walls built so we could build the joint trench, 3) Traffic Control, and 4 Archeologist to look at the joint trench. This item will be brought back to the CMB at a later date. Status: <i>01/30 A revised analysis was presented showing adjustments to each bid item incorporating the additional cost into the Final Form B columns. The methodology for distributing costs was questioned and direction was given to the Estimator to use a different methodology for assigning the allocated cost of items common to the work items and bring back to CMB for approval.</i></p>	
1-	<p>1252 – S. Wilson presented Evaluation of Merit of, COR 030 – LB – Class 1 Hazardous Material Haul off – Increase allowance amount for Excavation and disposal of the Hazardous Material spoils to allow payment to the Contractor. Site development of the Caltrans lease area and trenching to install the temporary electrical substation for TBM power generated spoils that were deemed hazardous. Following procedures outlined in contract the Contractor took spoils from the excavation work of the Caltrans yard, stockpiled the material, tested and pre classified it as required by the potential disposal facilities test levels. A total of 4,065.70 tons of hazardous materials (lead being the primary contaminant) was encountered and disposed of at Class 1 facilities. The CMB did not agree with merit requesting the RE look into how pre classified material was segregated and tested, if independent testing (validation) was performed on test indicating high level of contaminants and how decisions were made related to Contractor's means and methods versus contract work.</p>	
2-	<p>1252 – S. Wilson presented Evaluation of Merit of, COR 071 – LB – Ramp Excavation Wood Pile - Contractor encountered wood piles in the footprint of the Launch Box access ramp. The wood piles were not shown on the contract drawing or specifically identified in the Geotechnical Baseline Report (GBR). Contractor continues to excavate around the piles with the intent that once the ramp is at grade the Contractor intends to cut and dispose of the piles. The CMB did not agree with merit suggesting that impact has not been demonstrated and that the RE should negotiate with the Contractor requesting this item not be considered a change in lieu of another SFMTA concession.</p>	
3-	<p>1252 – S. Wilson presented PCC 07 - BART Annex Wall. This change directed by the owner is for installation of a temporary wall required to close off the BART entrance/exit near the Apple Store until the UMS construction is completed with the installation of a fully operable permanent roll-down fire door and grille door (see attached). The Cost Comparison sheet was reviewed. AGREE – CMB 0106 – Not To Exceed value of \$15,380.</p>	
4	<p>1252 – R. Redmond presented for information an issue escalation write up as discussed between the Contractor (BIH) and SFMTA regarding the unresolved issue of payment of indirect costs for Time related changes. Using COR 008 TIA of 7days related to (COR 001, 002 and 003) as an approach for setting precedence where time is involved the proposed Joint Resolution: SFMTA agrees to review and payment of "Time Related/variable Indirect Cost Only and OH cost as outline in the General Provision – Article 6.04B and 6.04C that are time related cost. BIH will revise their submittal of indirect costs to align with recent discussions at the RE level regarding acceptable categories of costs. The concept as laid out (see attached) will go forward provided the indirects can be substantiated. A review of the Contractor's revised categories will be reviewed by the SFMTA Contract Administrator prior to approval given to the Contractor. In addition the SFMTA's Contract Administrator suggested the language in the "Joint Resolution" section be revised to be more consistent "SFMTA agrees; SFMTA disagrees..." This item will be brought back to the CMB at a later date.</p>	



ITEM #	DISCUSSION	ACTION BY DUE DATE
5-	1252 – J. Funghi presented for discussion CN 1251 As built Structural Micropile Detail at 2 Stockton Street, which demonstrates the length of all the pin piles installed at 2 Stockton St. as 60ft long, rather than what is indicated in the CN1251 submittal. The issue raised concerns of the possibility that the micropiles may encroach on the tunnel. The CMB questioned who approved the 60ft length, who surveyed the offset and where is that data, also requesting a follow up action report of: 1) theoretical as built top of dirt elevation and 2) the actual data for top of rebar, to be provided Thursday morning 01/31.	ML/MB 01/31/13
6-	The Project Trend/Change Control Log version 01/30/13 was not viewed at this week's meeting. The log is updated to include most recent changes and trends for 1252. The log is attached for distribution with these meeting minutes.	

ACTION ITEMS

ITEM #	MTG DATE	MTG ACTION DATE	DESCRIPTION	BIC	DUE DATE	STATUS
5	08/08/12	08/29/12	1252 – PCC 1252-02 UMS Headwalls	MB	10/10/12	Open
1	11/07/12	11/07/12	1300 – WP 1254 – SF Planning Request	RE	11/28/12	Open
3	11/14/12	11/14/12	1252 – COR 033 – Retrieval Shaft – 20" Water Line	SW	11/21/12	Open
2	12/12/12	12/12/12	1252 – Validation 1300 docs include as built information regarding Asbestos Pipes	RE	01/09/13	Open
1	12/19/12	12/19/12	1251 – Revised final contract cost	MB	01/16/13	Open
1	01/23/13	01/23/13	1251 - Form B Comparison – Additional shared percentages	KB/MB	02/06/13	Open
1	01/30/13	01/30/13	1251 - Form B Allocated Methodology	KB	02/06/13	Open
5	01/30/13	01/30/13	1252 – Micropiles – As built condition explanation	ML	01/31/13	Open

Meeting adjourned at 6:15pm

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:   [initials of preparer & reviewer] Date: 01 FEB 13 [Date review completed]

Meeting Agenda

Project No. M544.1, Contract No. CS-149
 Program/Construction Management
 Configuration Management Board (CMB) Meeting No. 112
 January 30, 2013
 3:00pm – 5:00pm
 Central Subway Project Office
 821 Howard St. 2nd Floor
 Main Conference Room

Attendees:

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

1. **1251** – Form B – True Up – *Follow up*
2. **1252** – COR 030 — LB - Class 1 Hazardous Material Haul off – *Merit, Not to Exceed Amount*
 - COR 071 — LB - Ramp Excavation Wood Pile Obstruction, *Merit, ~~Not to Exceed Amount~~*
 - PCC 007 — BART Annex Wall (*Previously view at CMB Mtg. # 107*) - *Not to Exceed Amount*
 - COR 008 — Payment of Indirect costs for TIA submittals – *For Discussion*
3. **1300** – Nothing to Report
4. **Trend/Change Log** – 01/30/13
5. **Other Business** - *1251-Pin Piles at Stockton Street- CN1252 RFI 00179*

Meeting Attendance Sheet

Project No. M544.1, Contract No. 149
Program/Construction Management
Configuration Management Board Meeting No. 112
January 30, 2013
3:00 p.m. – 5:00 p.m.
 Central Subway Project Office
 821 Howard, 2nd Floor
 Main Conference Room

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

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS
Please enter initials if your name is listed below. Please enter name, affiliation, phone number and email address if your name is not listed below.				
Benson, Mark	CSP	(415) 701-4295	Mark.Benson@sfmta.com	<i>MCB</i>
Edwards, Ross	CSP	(415) 701-5296	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	<i>JS</i>
Haley, John	SFMTA		John.Haley@sfmta.com	
Hoe, Albert	SFMTA	(415) 701-4289	Albert.Hoe@sfmta.com	<i>AH</i>
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>WDL</i>
Lebovitz, Brad	STV/PMOC	(510) 464-8052	Bradley.lebovitz@stvinc.com	<i>BL</i>
Lee, Matt	SFCTA	(415) 522-4813	matt@sfcta.org	
Nguyen, Roger	SFMTA	(415) 701-4312	Roger.Nguyen@sfmta.com	

central subway

NAME	AFFILIATION	PHONE	E-MAIL (for minutes)	INITIALS
Park, Joon	SFMTA	(415) 701-4742	Joon.Park@sfmta.com	<i>JP</i>
Redmond, Richard	CSP	(415) 701-4288	Richard.Redmond@sfmta.com	<i>RR</i>
Stassevitch, Eric	CSP	(415) 701-4426	Eric.Stassevitch@sfmta.com	<i>ES</i>
Ward, Beverly	CSP	(415) 701-5291	Beverly.Ward@sfmta.com	<i>BW</i>
Wilson, Sarah	CSP	(415) 243-0950	Sarah.Wilson@sfmta.com	<i>SW</i>
Wong, Arthur	SFMTA	(415) 701-4305	Arthur.Wong@sfmta.com	
Zurinaga, Luis	SFCTA	(415) 716-6956	Luis.zurinaga@sfcta.org	
<i>LEONG, MUN</i>	<i>CSP</i> <i>SFMTA</i>	<i>(415) 531-9476</i>	<i>MUN.LEONG@SFMTA.COM</i>	<i>LM</i>
<i>Barnhart, Ken</i>	<i>PLL</i>	<i>7-5274</i>	<i>Kenneth.Barnhart@sfmta</i>	<i>KB</i>

SCHEDULE OF BID PRICES
 CONTRACT NO. 1251
 CENTRAL SUBWAY
 UNION SQUARE/MARKET STREET UTILITY RELOCATION

SCHEDULE OF BID PRICES

Name of Bidder: _____

San Francisco Transportation Agency - Third St. Light Rail Program Phase 2 - Central Subway Project

Contract 1251 - Union Square/Market Street Station Utility Relocation

Bid Item No.	Item Description	Total Amount (Engineer's Estimate)		Award (SPM)		Original Form B		Final Form B		Close Out Modification	
		Unit Price	Total Amount	Unit Price	Total Amount				Total Amount		Total Amount
BASE BID ITEMS											
GENERAL - GE											
GE-1	MOBILIZATION AND DEMOBILIZATION		\$550,000		2,500,000.00		373,436.00		1,039,682.81		2,500,000.00
GE-2	CURRENT SCHEDULES		\$14,482		20,000.00				8,317.46		20,000.00
GE-3	ALLOWANCE FOR REIMBURSABLE EXPENSES		\$50,000		50,000.00						40,601.94
GE-4	ALLOWANCE FOR DIFFERING SITE CONDITIONS		\$570,000		570,000.00						570,000.00
GE-5	TRENCH BOTTOM STABILIZATION	\$217	\$24,330	90.00	10,080.00						5,760.00
GE-6	838 MARKET STREET PLUMBING ALLOWANCE		\$90,000		90,000.00						0.00
	Total		\$1,298,811		\$3,240,080		\$373,436		\$1,048,000		\$3,136,362
SPECIAL PROVISIONS - SP											
SP-7A	CUSTOM BARRICADES	\$116	\$115,855	40.00	40,000.00						40,000.00
SP-7B	GRAPHIC PANELS	\$29	\$57,928	15.00	30,000.00						30,000.00
	Total		\$173,783		\$70,000		\$0		\$0		\$70,000
TEMPORARY TRAFFIC ROUTING - TR											
TR-1	TRAFFIC REGULATION		\$362,047		500,000.00		330,358.00		207,936.56		500,000.00
TR-2	TRAFFIC WATER FILLED BARRIER	\$1,448	\$72,409	300.00	15,000.00				6,238.10		15,000.00
TR-3	CHANGEABLE MESSAGE SIGNS	\$21,723	\$108,614	13,000.00	65,000.00		330,358.00		27,031.75		65,000.00
TR-4	CONSTRUCTION AREA AND SPECIAL TRAFFIC SIGNS	\$290	\$8,689	100.00	3,000.00				1,247.62		3,000.00
TR-5	TEMPORARY PAVEMENT MARKING, DELINEATION TAPE AND OVERLAY RAISED MARKERS AFTER FINAL PAVING		\$36,205		5,600.00		150,000.00		2,328.89		5,600.00
TR-6	TRAFFIC SUPERVISORS PROVIDED BY TRAFFIC SUB-CONTRACTOR	\$80	\$125,449	75.00	118,125.00				72,840.70		175,151.25
TR-7	ALLOWANCE FOR MANUAL TRAFFIC CONTROL		\$120,000		120,000.00				49,904.77		120,000.00
	Total		\$833,414		\$826,725		\$810,716		\$367,528		\$883,751
DEMOLITION - UD											
UD-1	RELOCATE THREE TREES IN PLANTER BOXES		\$3,085		2,000.00				2,000.00		2,000.00
UD-2	RELOCATE FOURTEEN TREES IN PLANTER BOXES		\$14,394		3,500.00				2,498.95		2,498.95
UD-3	HANDLING AND DISPOSAL OF STREET TREES		\$1,542		3,000.00				1,247.62		3,000.00
UD-4A	PARTIAL DEMOLITION OF PG&E VAULT 1857		\$12,858		7,000.00						0.00
UD-4B	PARTIAL DEMOLITION OF PG&E VAULT 5464		\$12,858		7,000.00						0.00
UD-5	HANDLING AND DISPOSAL OF CALIFORNIA CLASS 1 (NON-RCRA) HAZARDOUS WASTE	\$71	\$354,806	15.00	75,000.00						0.00
UD-6	TRANSPORTATION OF CALIFORNIA CLASS 1 (NON-RCRA) HAZARDOUS WASTE	\$51	\$253,433	17.00	85,000.00						0.00
UD-7	HANDLING AND DISPOSAL OF CALIFORNIA CLASS 2 (NON-HAZARDOUS) EXCAVATED MATERIAL	\$22	\$21,723	15.00	15,000.00				37,428.58		90,000.00
UD-8	TRANSPORTATION OF CALIFORNIA CLASS 2 (NON-HAZARDOUS) EXCAVATED MATERIAL	\$29	\$28,964	15.00	15,000.00				37,428.58		90,000.00
UD-9	ADDITIONAL EXPLORATORY HOLES	\$1,448	\$72,409	55.00	2,750.00						0.00
UD-10	PRE-EXCAVATION ENVIRONMENTAL SOIL PROFILING		\$36,205		14,000.00				5,822.22		14,000.00
UD-11	REMOVE AND REINSTALL STREETLIGHT POLE ON NEW FOUNDATION		\$5,758		6,000.00				6,000.00		6,000.00
UD-12	RELOCATE THREE FLOWER STANDS		\$21,723		13,500.00				13,500.00		13,500.00
UD-13	ALL DEMOLITION WORK WHICH IS OTHERWISE NOT PAID FOR		\$81,387		50,000.00				20,793.66		50,000.00
UD-14	ALLOWANCE OF UTILITY SERVICES FOR THREE FLOWER STANDS		\$20,000		20,000.00				8,140.68		19,574.91
	Total		\$941,145		\$318,750		\$0		\$134,860		\$290,574
STRUCTURAL DEMOLITION - SD											
SD-1	REMOVE ELEVATOR PIT AND HATCH	\$32,270	\$64,540	6,000.00	12,000.00				12,000.00		12,000.00
SD-2	REMOVE SEWER EJECTOR SUMP PIT	\$14,482	\$72,409	2,000.00	10,000.00				10,000.00		10,000.00
SD-3	REMOVE GAS VAULT AND HATCH		\$1,232		4,000.00				4,000.00		4,000.00
SD-4	REMOVE FUEL TANK AND FOUNDATION		\$108,614		15,000.00				15,000.00		15,000.00

SCHEDULE OF BID PRICES
 CONTRACT NO. 1251
 CENTRAL SUBWAY
 UNION SQUARE/MARKET STREET UTILITY RELOCATION

SCHEDULE OF BID PRICES

Name of Bidder: _____

Contract 1251 - Union Square/Market Street Station Utility Relocation

Bid Item No.	Item Description	Total Amount (Engineer's Estimate)		Award (SPM)		Original Form B		Final Form B		Close Out Modification	
		Unit Price	Total Amount	Unit Price	Total Amount				Total Amount		Total Amount
SD-5	REMOVE AT&T VAULT AND HATCH		\$6,162		4,000.00				4,000.00		4,000.00
SD-6	REMOVE INTERIOR BASEMENT WALLS	\$41	\$281,306	20.00	137,360.00				104,835.00		104,835.00
SD-7	REMOVE EXTERIOR BASEMENT WALLS	\$45	\$81,859	30.00	54,450.00				44,565.00		44,565.00
SD-8	REMOVE BASMENT SLAB ON GRADE	\$19	\$134,002	17.00	119,799.00				149,345.00		149,345.00
SD-9	REMOVE ELEVATED STRUCTURAL SLABS AND STRUCTURAL SIDEWALKS	\$19	\$331,933	10.00	174,550.00				147,320.00		147,320.00
SD-10	REMOVE RAISED CONCRETE PLATFORM		\$72,409		6,000.00				6,000.00		6,000.00
SD-11	ALLOWANCE FOR STRUCTURAL DEMOLITION ITEMS NOT SPECIFIED		\$100,000		100,000.00				34,822.47		83,733.40
	Total		\$1,254,468		\$637,159		\$0		\$531,887		\$580,798
	WATERPROOFING - WP										
WP-1	BUILDING WATERPROOFING		\$315,614		\$350,000		\$0		\$350,000		\$350,000
	JOINT TRENCH - JT										
JT-1	FURNISH AND INSTALL JT IN SUBSIDEWALK BASEMENT		\$727,694		225,000.00				225,000.00		225,000.00
JT-2	FURNISH AND INSTALL CDF BACKFILL IN SUBSIDEWALK BASEMENT	\$185	\$1,323,725	82.00	587,202.00						619,122.14
JT-3	FURNISH AND INSTALL SAND BACKFILL IN SUBSIDEWALK BASEMENT	\$77	\$35,152	50.00	22,850.00				10,900.00		10,900.00
	JOINT UTILITY TRENCH: DEPTH ≤ 5-FT										
JT-4	WIDTH ≤ 3-FEET	\$232	\$461,396	170.00	338,300.00				134,470.00		148,070.00
JT-5	WIDTH > 3-FEET	\$350	\$87,591	315.00	78,750.00		2,621,925.00		340,200.00		302,400.00
	JOINT UTILITY TRENCH: 5-FT < DEPTH ≤ 10-FT										
JT-6	WIDTH ≤ 3-FEET	\$452	\$82,243	234.00	42,588.00				66,924.00		84,240.00
JT-7	WIDTH > 3-FEET	\$574	\$591,301	241.00	248,471.00				396,445.00		423,919.00
	JOINT UTILITY TRENCH: DEPTH > 10-FT										
JT-8	ALL WIDTHS	\$927	\$237,336	248.00	63,488.00				74,896.00		77,376.00
	Total		\$3,546,438		\$1,606,649		\$2,621,925		\$1,248,835		\$1,891,027
	JOINT TRENCH UTILITY VAULTS										
9	JT-9	INTERCEPT UTILITY VAULTS TYPE PTS69 - 6 x 19 x 9	\$87,727	\$175,454	35,000.00	70,000.00			70,000.00		70,000.00
10	JT-10	INTERCEPT UTILITY VAULTS TYPE PTS69 - 6 x 14 x 9	\$71,080	\$71,080	30,000.00	30,000.00			30,000.00		30,000.00
11	JT-11	INTERCEPT UTILITY VAULTS TYPE PTS69 - 6 x 9 x 9	\$53,133	\$159,399	20,000.00	60,000.00			60,000.00		60,000.00
12	JT-12	UTILITY VAULTS T4	\$5,733	\$11,467	4,000.00	8,000.00					0.00
13	JT-13	PGE VAULT 10 x 10 x 10	\$149,347	\$149,347	25,000.00	25,000.00			25,000.00		25,000.00
14	JT-14	PGE VAULT 10 x 5.5 x 10	\$60,507	\$60,507	25,000.00	25,000.00			25,000.00		25,000.00
15	JT-15	PGE VAULT 8 x 12 x 10	\$79,075	\$79,075	25,000.00	25,000.00			50,000.00		50,000.00
16	JT-16	PGE VAULT 7 x 12 x 10	\$73,736	\$147,472	25,000.00	50,000.00			25,000.00		25,000.00
17	JT-17	PGE VAULT 7 x 10 x 10	\$65,736	\$65,736	25,000.00	25,000.00			25,000.00		25,000.00
18	JT-18	PGE VAULT 4.5 x 8.5 x 7.5	\$38,343	\$191,713	15,000.00	75,000.00			45,000.00		45,000.00
19	JT-19	UTILITY VAULT T3	\$3,229	\$9,688	3,000.00	9,000.00			3,000.00		3,000.00
20	JT-20	UTILITY VAULT TYPE 4 x 4 x 4	\$17,218	\$17,218	4,000.00	4,000.00					0.00
21	JT-21	UTILITY VAULT TYPE 3 x 5 x 4	\$13,880	\$83,278	5,000.00	30,000.00			30,000.00		30,000.00
22	JT-22	UTILITY VAULT TYPE I	\$1,938	\$1,938	325.00	325.00			2,600.00		2,600.00
23	JT-23	UTILITY VAULTS TYPE I-TR	\$1,938	\$13,564	325.00	2,275.00			325.00		325.00
24	JT-24	UTILITY VAULTS TYPE II	\$2,325	\$13,950	400.00	2,400.00			800.00		800.00
25	JT-25	UTILITY VAULTS TYPE II-TR	\$2,326	\$2,326	400.00	400.00					0.00
26	JT-26	UTILITY VAULTS TYPE III	\$2,325	\$9,300	600.00	2,400.00					0.00
27	JT-27	UTILITY VAULTS TYPE III-TR	\$2,326	\$2,326	600.00	600.00					0.00
28	JT-28	UTILITY VAULTS TYPE III-X	\$2,584	\$12,918	825.00	4,125.00			4,950.00		4,950.00
29	JT-29	UTILITY VAULTS TYPE III-X-TR	\$1,722	\$5,167	825.00	2,475.00			3,300.00		3,300.00
30	JT-30	UTILITY VAULTS TYPE IV-X	\$13,047	\$13,047	1,000.00	1,000.00			6,000.00		6,000.00
31	JT-31	UTILITY VAULTS TYPE IV-X-TR	\$13,047	\$26,093	1,000.00	2,000.00					0.00

SCHEDULE OF BID PRICES
 CONTRACT NO. 1251
 CENTRAL SUBWAY
 UNION SQUARE/MARKET STREET UTILITY RELOCATION

SCHEDULE OF BID PRICES

Name of Bidder: _____

Contract 1251 - Union Square/Market Street Station Utility Relocation		Total Amount (Engineer's Estimate)		Award (SPM)		Original Form B		Final Form B		Close Out Modification	
		Unit Price	Total Amount	Unit Price	Total Amount				Total Amount		Total Amount
32	JT-32	UTILITY VAULTS TYPE MUNI 38-687	\$37,562	\$112,686	12,000.00	36,000.00				24,000.00	24,000.00
33	JT-33	UTILITY VAULTS TYPE MUNI 38-687 INTERCEPT	\$37,562	\$37,562	18,000.00	18,000.00				18,000.00	18,000.00
34	JT-34	UTILITY VAULT TYPE Christy N9	\$1,744	\$17,439	325.00	3,250.00				2,925.00	2,925.00
		Total		\$1,489,750		\$511,250		\$948,072		\$450,900	\$450,900
		JOINT TRENCH UTILITY CONDUITS									
	JT-35	FURNISH AND INSTALL 2-INCH HDPE CONDUIT	\$8	\$9,027	10.00	10,960.00				26,870.00	26,870.00
	JT-36	FURNISH AND INSTALL 4-INCH HDPE CONDUIT	\$19	\$30,842	15.00	24,750.00				25,500.00	25,500.00
	JT-37	FURNISH AND INSTALL 5-INCH HDPE CONDUIT	\$28	\$126,851	18.00	82,548.00				52,272.00	52,272.00
	JT-38	FURNISH AND INSTALL 2-INCH PVC CONDUIT	\$28	\$165,231	6.00	35,076.00				31,836.00	31,836.00
	JT-39	FURNISH AND INSTALL 3-INCH PVC CONDUIT	\$10	\$10,496	6.00	6,474.00				5,970.00	5,970.00
	JT-40	FURNISH AND INSTALL 4-INCH PVC CONDUIT	\$22	\$922,564	8.20	337,052.80				366,294.00	366,294.00
	JT-41	FURNISH AND INSTALL 5-INCH PVC CONDUIT	\$39	\$38,296	16.00	15,760.00				1,776.00	1,776.00
	JT-42	FURNISH AND INSTALL 6-INCH PVC CONDUIT	\$45	\$910,771	11.00	224,818.00	3,125,362.00			169,312.00	169,312.00
	JT-43	FURNISH AND INSTALL 1-1/2-INCH QUADLOCK	\$54	\$377,091	19.00	133,912.00				135,052.00	135,052.00
	JT-44	FURNISH AND INSTALL 1-1/2-INCH GRS CONDUIT	\$16	\$24,611	16.00	24,176.00				13,808.00	13,808.00
	JT-45	FURNISH AND INSTALL 2-INCH GRS CONDUIT	\$30	\$67,736	20.00	45,720.00				7,620.00	7,620.00
	JT-46	FURNISH AND INSTALL 4-INCH GRS CONDUIT	\$63	\$20,945	33.00	10,890.00				10,890.00	10,890.00
	JT-47	FURNISH AND INSTALL 6-INCH GRS CONDUIT	\$163	\$32,583	49.00	9,800.00				33,516.00	33,516.00
	JT-48	FURNISH AND INSTALL 2-INCH GAS PE CONDUIT	\$23	\$20,398	20.00	18,020.00				4,040.00	4,040.00
	JT-49	FURNISH AND INSTALL 6-INCH GAS PE CONDUIT	\$92	\$86,859	55.00	51,755.00				33,165.00	33,165.00
		Total		\$2,844,301		\$1,031,712		\$3,125,362		\$917,921	\$917,921
		SEWER WORK -SW									
	SW-1	TRENCH AND EXCAVATION SUPPORT WORK		\$2,547,683		1,000,000.00					1,000,000.00
	SW-2	DEMOLITION, REMOVALS, AND ABANDONMENT WORK		\$258,625		100,000.00					100,000.00
	SW-3	12-INCH DIAMETER VCP SEWER ON CRUSHED ROCK BEDDING	\$125	\$19,493	170.00	26,520.00					16,490.00
	SW-4	8-INCH DIAMETER HDPE SEWER ENCASED IN CRUSHED ROCK	\$172	\$32,232	150.00	28,050.00					26,400.00
	SW-5	10-INCH DIAMETER HDPE SEWER ENCASED IN CRUSHED ROCK	\$190	\$30,370	180.00	28,800.00					27,000.00
	SW-6	14-INCH DIAMETER HDPE SEWER ENCASED IN CRUSHED ROCK	\$226	\$93,744	200.00	83,000.00					103,200.00
	SW-7	16-INCH DIAMETER HDPE SEWER ENCASED IN CRUSHED ROCK	\$220	\$20,015	225.00	20,475.00					21,375.00
	SW-8	18-INCH DIAMETER HDPE SEWER ENCASED IN CRUSHED ROCK	\$220	\$58,065	250.00	66,000.00					70,000.00
	SW-9	18-INCH DIAMETER FLUSH BELL RCP CLASS IV SEWER ON CRUSHED ROCK BEDDING INCLUDING CASING INSULATOR	\$235	\$9,419	275.00	11,000.00					9,900.00
	SW-10	CONCRETE MANHOLE FOR PIPE SIZE 12-INCH TO 24-INCH DIAMETER WITH NEW FRAME AND COVER (PER SFDPW STD. PLAN 87,181)	\$9,829	\$127,778	4,500.00	58,500.00					63,000.00
	SW-11	MODIFIED BOX MANHOLE FOR CONNECTION TO 3'X5' BRICK SEWER WITH NEW FRAME AND COVER (IN ACCORDANCE WITH SFDPW STD. PLAN 87,184)	\$9,829	\$58,975	20,000.00	120,000.00					120,000.00
	SW-12	SEWER MAIN CLEANOUT (IN ACCORDANCE WITH DETAIL ON DWG SW-2)	\$290	\$869	500.00	1,500.00					2,500.00
	SW-13	CONCRETE CATCH BASIN WITH NEW FRAME, GRATING, AND CAST IRON TRAP (IN ACCORDANCE WITH SFDPW STD. PLAN 87,188 AND AS SHOWN ON DWG SW-2)	\$2,906	\$26,154	5,000.00	45,000.00					25,000.00
	SW-14	10-INCH DIAMETER VCP CULVERT	\$120	\$15,335	150.00	19,200.00					7,200.00
	SW-15	10-INCH DIAMETER DIP CULVERT	\$95	\$15,552	180.00	29,520.00					21,600.00
	SW-16	CAST IRON WATER TRAP FOR CATCH BASIN INCLUDING CLEANOUT CAP (IN ACCORDANCE WITH SFDPW STD. PLAN 87,194)	\$246	\$1,231	300.00	1,500.00					1,500.00
	SW-17	TELEVISION INSPECTION OF 6, 8, 10, OR 12-INCH DIAMETER SIDE SEWER OR 10-INCH DIAMETER CULVERT	\$2,172	\$69,513	150.00	4,800.00					0.00
	SW-18	6 OR 8-INCH DIAMETER SIDE SEWER CONNECTION TO VCP	\$724	\$18,826	300.00	7,800.00					8,100.00
	SW-19	6 OR 8-INCH DIAMETER SIDE SEWER	\$125	\$44,303	125.00	44,375.00					40,250.00
	SW-20	SIDE SEWER AIR VENT ASSEMBLY	\$1,729	\$12,100	1,500.00	10,500.00					7,500.00

SCHEDULE OF BID PRICES
 CONTRACT NO. 1251
 CENTRAL SUBWAY
 UNION SQUARE/MARKET STREET UTILITY RELOCATION

SCHEDULE OF BID PRICES

Name of Bidder: _____

Contract 1251 - Union Square/Market Street Station Utility Relocation

Bid Item No.	Item Description	Total Amount (Engineer's Estimate)		Award (SPM)		Original Form B		Final Form B		Close Out Modification	
		Unit Price	Total Amount	Unit Price	Total Amount				Total Amount		Total Amount
SW-21	POST CONSTRUCTION TELEVISION INSPECTION OF NEWLY CONSTRUCTED MAIN SEWERS		\$55,495		20,000.00						20,000.00
SW-22	EXPLORATORY HOLES OR POTLHOLES (CONDITIONAL BID ITEM)	\$1,448	\$2,896	100.00	200.00						0.00
	Total		\$3,518,674		\$1,726,740		\$0		\$0		\$1,691,015
	WATER DISTRIBUTION WORK - WD										
WD-1	METER BOX REMOVAL	\$317	\$951	300.00	900.00						0.00
WD-2	WATER PIPE REMOVAL AND ABANDONMENT		\$375,492		50,000.00						50,000.00
WD-3A	INSTALLATION 6-INCH DIP WITH POLYETHYLENE ENCASEMENT	\$243	\$20,873	120.00	10,320.00						21,120.00
WD-3B	INSTALLATION 8-INCH DIP WITH POLYETHYLENE ENCASEMENT	\$459	\$663,159	150.00	216,600.00						195,450.00
WD-3C	INSTALLATION 12-INCH DIP WITH POLYETHYLENE ENCASEMENT	\$255	\$31,165	200.00	24,400.00						30,000.00
WD-4	INSTALLATION OF SCREW TAPS	\$2,612	\$26,118	200.00	2,000.00						1,600.00
WD-5A	INSTALLATION OF 1-INCH SERVICE PIPE	\$23	\$2,342	125.00	12,625.00						0.00
WD-5B	INSTALLATION OF 2-INCH SERVICE PIPE	\$23	\$1,793	150.00	11,850.00						0.00
WD-6A	INSTALLATION OF 4-INCH SERVICE PIPE	\$215	\$20,834	120.00	11,640.00						1,320.00
WD-6B	INSTALLATION OF 6-INCH SERVICE PIPE	\$451	\$41,899	150.00	13,950.00						4,500.00
WD-6C	INSTALLATION OF 8" SERVICE PIPE	\$1,754	\$52,605	170.00	5,100.00						1,700.00
WD-7	TRENCH EXCAVATION AND BACKFILL FOR PIPE INSTALLED BY SFWD	\$898	\$54,768	175.00	10,675.00						0.00
WD-8	INSTALLATION OF STRUCTURAL SUB-SIDEWALK BASEMENT AREA-WAY SETTING FOR LOW PRESSURE FIRE HYDRANTS	\$4,508	\$9,016	10,000.00	20,000.00						0.00
WD-9	INSTALLATION OF 8-INCH DUCTILE IRON STRUCTURALLY SUPPORTED PIPES WITH POLYETHYLENE ENCASEMENT	\$134	\$19,627	250.00	36,750.00						0.00
WD-10	ALLOWANCE FOR ADDITIONAL EXCAVATION AND BACKFILL		\$100,000		100,000.00						100,000.00
	Total		\$1,420,642		\$526,810		\$0		\$0		\$405,690
	AUXILLIARY WATER SUPPLY SYSTEM (AWSS) - AW										
AW-1	TRENCH SHORING AND BRACING OR EQUIVALENT METHOD CONFORMING TO APPLICABLE SAFETY ORDERS		\$269,947		100,000.00						100,000.00
AW-2	LOCATIONS 1A AND 1B-GEARY STREET - AWSS MAIN AND HYDRANT LATERAL WORK		\$337,497		400,000.00						384,757.14
AW-3	LOCATIONS 1A AND 1B-O'FARRELL STREET - AWSS MAIN AND HYDRANT LATERAL WORK		\$422,426		400,000.00						387,842.92
AW-4	LOCATION 2 - AWSS HYDRANT LATERAL WORK		\$50,773		100,000.00						76,945.46
AW-5	AWSS HYDRANT LATERAL OFFSET (DELETABLE BID ITEM)		\$28,448	1,250.00	6,250.00						7,500.00
AW-6	10-INCH DIAMETER AWSS PIPING REPLACEMENT-10 FOOT LAY LENGTH (DELETABLE BID ITEM)		\$1,599	1,000.00	2,000.00						0.00
AW-7	12-INCH DIAMETER AWSS PIPING REPLACEMENT-10 FOOT LAY LENGTH (DELETABLE BID ITEM)		\$4,614	1,200.00	4,800.00						0.00
	Total		\$1,115,305		\$1,013,050		\$0		\$0		\$957,046
	PAVEMENT RESTORATION - RP										
RP-1	ASPAHLT CONCRETE (TYPE A, 1/2-INCH MAXIMUM WITH MEDIUM GRADING)	\$204	\$91,876	175.00	78,750.00				82,176.50		82,176.50
RP-2	FULL DEPTH PLANING PER 2-INCH DEPTH OF CUT	\$7	\$221,337	2.00	62,000.00				58,046.00		58,046.00
RP-3	8-INCH THICK CONCRETE BASE	\$12	\$66,916	9.00	50,400.00				27,234.00		27,234.00
RP-4	8-INCH THICK CONCRETE PAVEMENT	\$14	\$27,164	10.00	20,000.00				5,460.00		5,460.00
RP-5	10-INCH THICK CONCRETE PAVEMENT	\$16	\$18,018	12.00	13,200.00				0.00		0.00
RP-6	6-INCH WIDE CONCRETE CURB	\$26	\$150,633	32.00	184,000.00				10,304.00		10,304.00
RP-7	2-FOOT WIDE CONCRETE GUTTER	\$37	\$20,848	35.00	19,600.00				14,140.00		14,140.00
RP-8	3-1/2-INCH THICK CONCRETE SIDEWALK	\$13	\$336,631	15.00	378,000.00				261,052.50		261,052.50
RP-9	CONCRETE CURB RAMP	\$1,662	\$41,540	2,500.00	62,500.00				42,500.00		42,500.00
RP-10	CAST-IN PLACE DETECTABLE SURFACE TILE	\$72	\$21,739	50.00	15,000.00				0.00		0.00
RP-11	ALLOWANCE FOR EXCAVATION PERMIT FEE ASSESSED BY BSM ACCORDING TO ARTICLE 2.4 OF THE PUBLIC WORKS CODE		\$10,000		10,000.00				0.00		0.00
	Total		\$1,006,703		\$893,450		\$0		\$500,913		\$500,913

SCHEDULE OF BID PRICES
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 UNION SQUARE/MARKET STREET UTILITY RELOCATION

SCHEDULE OF BID PRICES

Name of Bidder: _____

Contract 1251 - Union Square/Market Street Station Utility Relocation

Bid Item No.	Item Description	Total Amount (Engineer's Estimate)		Award (SPM)		Original Form B		Final Form B		Close Out Modification	
		Unit Price	Total Amount	Unit Price	Total Amount				Total Amount		Total Amount
TRAFFIC SIGNALS- ET											
ET-1	TRAFFIC SIGNALS		\$720		50,000.00				20,793.66		50,000.00
ET-2	TEMPORARY TROLLEY RE-ROUTE - TRAFFIC SIGNALS		\$136,739		83,000.00						83,000.00
	Total		\$137,459		\$133,000		\$0		\$20,794		\$133,000
STRUCTURAL - SR											
SR-1	CAST-IN-PLACE & PNEUMATICALLY PLACED CONCRETE AND ACCESSORIES (6,000 PSI)	\$896	\$682,117	600.00	456,600.00				391,200.00		391,200.00
SR-2	STEEL REINFORCEMENTS	\$4,293	\$437,931	2,700.00	275,400.00				330,912.00		330,912.00
SR-3	195 KIPS COMPRESSION MICROPILES	\$6,874	\$178,712	10,000.00	260,000.00				260,000.00		260,000.00
SR-4	240 KIPS COMPRESSION MICROPILES	\$23,074	\$346,117	4,400.00	66,000.00				66,000.00		66,000.00
SR-5	300 KIPS COMPRESSION MICROPILES	\$17,562	\$140,493	6,000.00	48,000.00				48,000.00		48,000.00
SR-6	150 KIPS TENSION MICROPILES	\$9,485	\$237,116	6,500.00	162,500.00				162,500.00		162,500.00
SR-7	90 KIPS TENSION MICROPILES	\$6,252	\$81,281	3,400.00	44,200.00				44,200.00		44,200.00
SR-8	115 KIPS TENSION MICROPILES	\$7,609	\$197,821	2,400.00	62,400.00				62,400.00		62,400.00
SR-9	SEGMENTAL UNDERPINNING	\$2,172	\$86,891	2,900.00	116,000.00				58,000.00		58,000.00
SR-10	260 KIPS COMPRESSION MICROPILES	\$15,409	\$123,268	6,000.00	48,000.00				48,000.00		48,000.00
	Total		\$2,511,748		\$1,539,100		\$0		\$1,471,212		\$1,471,212
MECHANICAL (PLUMBING) - MP											
MP-01	PLUMBING SYSTEM		\$139,391		\$200,000						\$200,000
ELECTRICAL LIGHTING - EL											
EL-1	TEMPORARY TROLLEY RE-ROUTE - STREET LIGHTING		\$119,620		60,000.00						60,000.00
EL-2	TEMPORARY TROLLEY RE-ROUTE - TROLLEY POLE GROUNDING		\$18,755		15,000.00						15,000.00
EL-3	STREET LIGHTING		\$59,040		75,000.00				31,190.48		75,000.00
	Total		\$197,416		\$150,000		\$0		\$31,190		\$150,000
TRACTION POWER - TP											
TP-1	TRACTION POWER SYSTEM		\$188,263		125,000.00						37,500.00
TP-2	HI-SPEED DC TRIP UNIT	\$9,075	\$36,302	7,800.00	31,200.00						31,200.00
	Total		\$224,565		\$156,200		\$0		\$0		\$68,700
OVERHEAD - OV											
OV-1	OVERHEAD SPECIAL WORK AT STOCKTON AND SUTTER STREETS		\$201,298		200,000.00						200,000.00
OV-2	OVERHEAD SPECIAL WORK AT SUTTER AND MASON STREETS		\$186,816		200,000.00						200,000.00
OV-3	OVERHEAD SPECIAL WORK AT MASON AND EDDY STREETS		\$175,231		50,000.00						50,000.00
OV-4	OVERHEAD SPECIAL WORK AT MARKET AND TURK STREETS		\$186,816		220,000.00						220,000.00
OV-5	OVERHEAD SPECIAL WORK AT MARKET AND FIFTH STREETS		\$186,816		50,000.00						50,000.00
OV-6	OVERHEAD SPECIAL WORK AT FIFTH AND HARRISON STREETS		\$176,679		80,000.00						80,000.00
OV-7	PROVIDE 2/0 TROLLEYWIRE	\$38	\$414,182	29.00	319,000.00						304,152.00
OV-8	PROVIDE TANGENT OR INVERTED SPAN	\$11,586	\$162,197	3,500.00	49,000.00						31,500.00
OV-9	PROVIDE BRACKET ARM AND SPAN	\$10,282	\$308,464	5,000.00	150,000.00						170,000.00
OV-10	PROVIDE DIFFERENTIAL DEAD-END	\$14,482	\$14,482	5,500.00	5,500.00						5,500.00
OV-11	PROVIDE SECTION INSULATOR	\$21,723	\$152,060	5,000.00	35,000.00						25,000.00
OV-12	PROVIDE TROLLEYWIRE CROSSOVER	\$14,482	\$57,928	25,000.00	100,000.00						100,000.00
OV-13	PROVIDE TYPE 761N TROLLEY POLE	\$72	\$2,245	3,400.00	105,400.00						119,000.00
OV-14	PROVIDE TYPE 765N TROLLEY POLE	\$17,089	\$85,443	3,400.00	17,000.00						17,000.00

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SCHEDULE OF BID PRICES

Name of Bidder: _____

Contract 1251 - Union Square/Market Street Station Utility Relocation

Bid Item No.	Item Description	Total Amount (Engineer's Estimate)		Award (SPM)		Original Form B		Final Form B		Close Out Modification	
		Unit Price	Total Amount	Unit Price	Total Amount				Total Amount		Total Amount
OV-15	PROVIDE TYPE 770 TROLLEY POLE	\$32,295	\$96,884	6,000.00	18,000.00						18,000.00
OV-16	PROVIDE TROLLEY POLE FOUNDATION FOR TYPE 761N POLE	\$8,399	\$235,186	4,200.00	117,600.00						134,400.00
OV-17	PROVIDE TROLLEY POLE FOUNDATION FOR TYPE 765N POLE	\$9,268	\$46,342	4,200.00	21,000.00						16,800.00
OV-18	PROVIDE TROLLEY POLE FOUNDATION FOR TYPE 770 POLE	\$12,020	\$36,060	5,500.00	16,500.00						16,500.00
OV-19	REMOVE AND SALVAGE OR DISPOSE OF EXISTING TROLLEY POLE AND DISPOSE OF FOUNDATION 3 FEET BELOW FINISH GRADE	\$5,069	\$15,206	800.00	2,400.00						2,400.00
OV-20	PROSPECT HOLE FOR DEPTH UP TO 3 FEET	\$1,448	\$23,171	450.00	7,200.00						4,050.00
OV-21	PROSPECT HOLE FOR DEPTH GREATER THAN 3 FEET	\$2,896	\$14,482	675.00	3,375.00						0.00
OV-22	PAINT TROLLEY POLE	\$2,896	\$8,689	800.00	2,400.00						0.00
	Total		\$2,786,677		\$1,769,375		\$0		\$0		\$1,764,302
STRUCTURAL OVERHEAD - SO											
SO-1	PROVIDE SUBSIDEWALK BASEMENT FOUNDATION	\$21,723	\$65,168	12,000.00	36,000.00						60,000.00
SO-2	PROVIDE EYEBOLT	\$6,372	\$101,952	2,000.00	32,000.00						22,000.00
SO-3	TESTING OF EXISTING EYEBOLTS	\$1,448	\$8,689	750.00	4,500.00						6,750.00
	Total		\$175,810		\$72,500		\$0		\$0		\$88,750
Subtotal Base Bid Item Work			\$25,932,113		\$16,772,550		\$7,879,511		\$7,074,042		\$16,001,961
OPTIONAL BID ITEM - OP											
SP-OP11	OPTION FOR UTILITY RELOCATION AND CLOSURE WALL FOR VACATING BASEMENT FOR 17-19 STOCKTON STREET		\$1,185,000		60,000.00						
Subtotal Optional Bid Item Work			\$1,185,000		\$60,000						
Contract Modifications										\$1,279,825.09	\$4,904,365.16
Allowances										\$1,575,902.00	
Site Management 5%										\$315,181.00	\$417,693.33
Escalation										\$322,432.00	
BID RECAPITULATION											
Reduction to meet Form B agreement amounts										(\$419,956.00)	
A	Subtotal Base Bid Item Work (from Page 4.7)		\$25,932,113		\$16,772,549.80						
B	Subtotal Optional Bid Item Work (from above)		\$1,185,000		\$60,000.00						
Grand Total			\$27,117,113		\$16,832,549.80		\$9,673,070.00		\$8,771,559.99		\$20,906,326.27
Anticipated reimbursement (City Portion Removed)								\$7,378,641.00		\$7,095,112.61	

JOINT TRENCH CONSTRUCTION COST AGREEMENT
Central Subway Contract 1251

Trenching, Backfill, Pavement Demo/Restoration																			
Trench Section	Type	QTY	Unit Price [\$/UNIT]	Total	PG&E Electric		PG&E Gas		AT&T		Qwest		TCG		UCCO		CITY		
					%	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL	
1	JT-5	67 LF	\$315.00	\$21,105.00		\$0.00		\$0.00	100%	\$21,105.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
2	JT-4	20 LF	\$170.00	\$3,400.00		\$0.00		\$0.00	100%	\$3,400.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
3	JT-5	122 LF	\$315.00	\$38,430.00		\$0.00		\$0.00	100%	\$38,430.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
4	JT-4	10 LF	\$170.00	\$1,700.00		\$0.00		\$0.00	100%	\$1,700.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
5	JT-4	107 LF	\$170.00	\$18,190.00	100%	\$18,190.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
6	JT-5	87 LF	\$315.00	\$27,405.00	100%	\$27,405.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
7	JT-4	20 LF	\$170.00	\$3,400.00		\$0.00		\$0.00	100%	\$3,400.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
8	JT-4	20 LF	\$170.00	\$3,400.00		\$0.00		\$0.00	100%	\$3,400.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
9	JT-5	110 LF	\$315.00	\$34,650.00		\$0.00		\$0.00	100%	\$34,650.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
10	JT-5	25 LF	\$315.00	\$7,875.00		\$0.00		\$0.00	58%	\$4,566.50		\$0.00		\$0.00		\$0.00	42%	\$3,308.50	100%
11	JT-8	70 LF	\$248.00	\$17,360.00	91%	\$15,853.13		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	9%	\$1,506.87	100%
12	JT-6	26 LF	\$234.00	\$6,084.00	100%	\$6,084.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
13	JT-7	30 LF	\$241.00	\$7,230.00		\$0.00		\$0.00	100%	\$7,230.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
14	JT-6	26 LF	\$234.00	\$6,084.00		\$0.00		\$0.00	100%	\$6,084.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
15	JT-4	44 LF	\$170.00	\$7,480.00		\$0.00		\$0.00		\$0.00	38%	\$2,818.23	22%	\$1,625.90	22%	\$1,625.90	19%	\$1,409.96	100%
16	JT-7	26 LF	\$241.00	\$6,266.00	92%	\$5,755.16		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	8%	\$510.84	100%
17	JT-8	37 LF	\$248.00	\$9,176.00	17%	\$1,586.36	42%	\$3,857.69	24%	\$2,216.66	5%	\$441.63	3%	\$254.79	3%	\$254.79	6%	\$564.09	100%
18	JT-8	15 LF	\$248.00	\$3,720.00	28%	\$1,033.22	55%	\$2,027.75		\$0.00	6%	\$232.14	4%	\$133.93	4%	\$133.93	4%	\$159.04	100%
19	JT-8	20 LF	\$248.00	\$4,960.00	47%	\$2,325.62		\$0.00	20%	\$989.74		\$0.00		\$0.00		\$0.00	33%	\$1,644.65	100%
20	JT-4	15 LF	\$170.00	\$2,550.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	100%	\$2,550.00	100%
21	JT-4	75 LF	\$170.00	\$12,750.00	100%	\$12,750.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
22	JT-7	42 LF	\$241.00	\$10,122.00		\$0.00		\$0.00	60%	\$6,096.19		\$0.00		\$0.00		\$0.00	40%	\$4,025.81	100%
23	JT-7	12 LF	\$241.00	\$2,892.00	28%	\$814.80		\$0.00	43%	\$1,251.04		\$0.00		\$0.00		\$0.00	29%	\$826.16	100%
24	JT-4	18 LF	\$170.00	\$3,060.00	100%	\$3,060.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
25	JT-7	16 LF	\$241.00	\$3,856.00		\$0.00		\$0.00	100%	\$3,856.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
26	JT-7	40 LF	\$241.00	\$9,640.00	100%	\$9,640.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
27	JT-8	90 LF	\$248.00	\$22,320.00	17%	\$3,858.70	42%	\$9,383.56	24%	\$5,391.87	5%	\$1,074.24	3%	\$619.76	3%	\$619.76	6%	\$1,372.11	100%
28	JT-7	14 LF	\$241.00	\$3,374.00	17%	\$583.30	42%	\$1,418.46	24%	\$815.06	5%	\$162.39	3%	\$93.69	3%	\$93.69	6%	\$207.42	100%
29	JT-7	16 LF	\$241.00	\$3,856.00	18%	\$710.00	45%	\$1,726.57	19%	\$741.23	5%	\$197.66	3%	\$114.03	3%	\$114.03	7%	\$252.47	100%
30	JT-7	105 LF	\$241.00	\$25,305.00	16%	\$3,927.63	43%	\$10,865.75	25%	\$6,243.55	5%	\$1,243.93	3%	\$717.65	3%	\$717.65	6%	\$1,588.85	100%
31	JT-7	95 LF	\$241.00	\$22,895.00		\$0.00		\$0.00	64%	\$14,731.42		\$0.00		\$0.00		\$0.00	36%	\$8,163.58	100%
32	JT-7	90 LF	\$241.00	\$21,690.00		\$0.00		\$0.00	54%	\$11,802.89		\$0.00		\$0.00		\$0.00	46%	\$9,887.11	100%
33	JT-7	40 LF	\$241.00	\$9,640.00		\$0.00		\$0.00	62%	\$5,969.56		\$0.00		\$0.00		\$0.00	38%	\$3,670.44	100%
34	JT-7	30 LF	\$241.00	\$7,230.00		\$0.00		\$0.00	100%	\$7,230.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
35	JT-7	30 LF	\$241.00	\$7,230.00	100%	\$7,230.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	100%
36	JT-7	33 LF	\$241.00	\$7,953.00	40%	\$3,151.56	40%	\$3,196.87	12%	\$955.88		\$0.00		\$0.00		\$0.00	8%	\$648.69	100%
37	JT-7	77 LF	\$241.00	\$18,557.00	44%	\$8,226.09	35%	\$6,511.98	10%	\$1,947.11		\$0.00		\$0.00		\$0.00	10%	\$1,871.82	100%
38	JT-7	25 LF	\$241.00	\$6,025.00	48%	\$2,891.27	38%	\$2,288.80	7%	\$394.83		\$0.00		\$0.00		\$0.00	7%	\$450.10	100%
39	JT-7	8 LF	\$241.00	\$1,928.00	39%	\$746.06	41%	\$790.24	12%	\$236.29		\$0.00		\$0.00		\$0.00	8%	\$155.40	100%
40	JT-7	28 LF	\$241.00	\$6,748.00	17%	\$1,117.06	46%	\$3,090.35	20%	\$1,326.70	5%	\$353.79	3%	\$204.11	3%	\$204.11	7%	\$451.89	100%
41	JT-7	112 LF	\$241.00	\$26,992.00	18%	\$4,970.00	45%	\$12,086.02	19%	\$5,188.59	5%	\$1,383.62	3%	\$798.24	3%	\$798.24	7%	\$1,767.28	100%
42	JT-7	45 LF	\$241.00	\$10,845.00	15%	\$1,615.58		\$0.00	52%	\$5,686.76		\$0.00		\$0.00		\$0.00	33%	\$3,542.66	100%
43	JT-6	33 LF	\$234.00	\$7,722.00	89%	\$6,902.24		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	11%	\$819.76	100%
44	JT-7	40 LF	\$241.00	\$9,640.00	18%	\$1,717.39	34%	\$3,243.68	27%	\$2,636.85		\$0.00		\$0.00		\$0.00	21%	\$2,042.08	100%
45	JT-7	56 LF	\$241.00	\$13,496.00	15%	\$2,085.28	43%	\$5,768.89	25%	\$3,314.85	5%	\$660.43	3%	\$381.02	3%	\$381.02	7%	\$904.52	100%
46	JT-8	30 LF	\$248.00	\$7,440.00	16%	\$1,196.49	44%	\$3,310.07	19%	\$1,421.03	9%	\$639.46	5%	\$378.94	5%	\$378.94	2%	\$115.06	100%
47	JT-7	130 LF	\$241.00	\$31,330.00	17%	\$5,186.37	46%	\$14,348.03	20%	\$6,159.68	5%	\$1,642.58	3%	\$947.64	3%	\$947.64	7%	\$2,098.04	100%
48	JT-7	30 LF	\$241.00	\$7,230.00	16%	\$1,156.71	44%	\$3,200.02	22%	\$1,606.27	5%	\$366.34	3%	\$211.35	3%	\$211.35	7%	\$477.96	100%
49	JT-7	4 LF	\$241.00	\$964.00	41%	\$396.48	42%	\$402.18	12%	\$120.25		\$0.00		\$0.00		\$0.00	5%	\$45.09	100%
50	JT-7	7 LF	\$241.00	\$1,687.00	42%	\$706.20	42%	\$716.35	7%	\$123.57		\$0.00		\$0.00		\$0.00	8%	\$140.87	100%
51	JT-7	7 LF	\$241.00	\$1,687.00	47%	\$797.37	41%	\$692.52	7%	\$119.46		\$0.00		\$0.00		\$0.00	5%	\$77.65	100%
52	JT-7	30 LF	\$241.00	\$7,230.00	41%	\$2,950.74	43%	\$3,125.47	7%	\$539.15		\$0.00		\$0.00		\$0.00	9%	\$614.63	100%
53	JT-7	30 LF	\$241.00	\$7,230.00	72%	\$5,197.64		\$0.00	13%	\$949.70		\$0.00		\$0.00		\$0.00	15%	\$1,082.66	100%
54	JT-7	56 LF	\$241.00	\$13,496.00	83%	\$11,169.43		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	17%	\$2,326.57	100%
55	JT-5	45 LF	\$315.00	\$14,175.00	100%	\$14,175.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	100%

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56	JT-6	11 LF	\$234.00	\$2,574.00	46%	\$1,189.04	\$0.00	44%	\$1,133.15	\$0.00	\$0.00	\$0.00	10%	\$251.81	100%				
57	JT-6	15 LF	\$234.00	\$3,510.00	51%	\$1,797.24	\$0.00	49%	\$1,712.76	\$0.00	\$0.00	\$0.00		\$0.00	100%				
58	JT-6	30 LF	\$234.00	\$7,020.00	44%	\$3,080.56	\$0.00	42%	\$2,935.76	\$0.00	\$0.00	\$0.00	14%	\$1,003.68	100%				
59	JT-6	40 LF	\$234.00	\$9,360.00	80%	\$7,521.95	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	20%	\$1,838.05	100%				
60	JT-4	39 LF	\$170.00	\$6,630.00		\$0.00	100%	\$6,630.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00	100%				
61	JT-5	20 LF	\$315.00	\$6,300.00	100%	\$6,300.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00	100%				
62	JT-5	10 LF	\$315.00	\$3,150.00		\$0.00		\$0.00	\$0.00	41%	\$1,278.44	23%	\$737.56	23%	\$737.56	13%	\$396.44	100%	
63	JT-7	50 LF	\$241.00	\$12,050.00		\$0.00		\$0.00	100%	\$12,050.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
64	JT-5	143 LF	\$315.00	\$45,045.00		\$0.00		\$0.00	100%	\$45,045.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
65	JT-4	25 LF	\$170.00	\$4,250.00		\$0.00		\$0.00	54%	\$2,288.92	\$0.00	\$0.00		\$0.00	46%	\$1,961.08	100%		
66	JT-4	23 LF	\$170.00	\$3,910.00		\$0.00		\$0.00		\$0.00	\$0.00	\$0.00		\$0.00	100%	\$3,910.00	100%		
67	JT-4	82 LF	\$170.00	\$13,940.00		\$0.00	100%	\$13,940.00	\$0.00		\$0.00	\$0.00		\$0.00		\$0.00	100%		
68	JT-5	28 LF	\$315.00	\$8,820.00		\$0.00		\$0.00	78%	\$6,895.64	\$0.00	\$0.00		\$0.00	22%	\$1,924.36	100%		
69	JT-4	35 LF	\$170.00	\$5,950.00		\$0.00	90%	\$5,350.11	\$0.00		\$0.00	\$0.00		\$0.00	10%	\$599.89	100%		
70	JT-5	5 LF	\$315.00	\$1,575.00		\$0.00		\$0.00	78%	\$1,231.36	\$0.00	\$0.00		\$0.00	22%	\$343.64	100%		
71	JT-7	90 LF	\$241.00	\$21,690.00	43%	\$9,284.12	\$0.00	41%	\$8,847.72	\$0.00	\$0.00	\$0.00	16%	\$3,558.15	100%				
72	JT-7	25 LF	\$241.00	\$6,025.00	85%	\$5,143.09	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	15%	\$881.91	100%				
73	JT-7	15 LF	\$241.00	\$3,615.00	85%	\$3,085.85	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	15%	\$529.15	100%				
74	JT-5	150 LF	\$315.00	\$47,250.00		\$0.00		\$0.00	100%	\$47,250.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
75	JT-4	25 LF	\$170.00	\$4,250.00		\$0.00		\$0.00		\$0.00	\$0.00	\$0.00		\$0.00	100%	\$4,250.00	100%		
76	JT-7	28 LF	\$241.00	\$6,748.00	100%	\$6,748.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
77	JT-6	25 LF	\$234.00	\$5,850.00	100%	\$5,850.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
78	JT-7	7 LF	\$241.00	\$1,687.00		\$0.00		\$0.00	100%	\$1,687.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
79	JT-6	25 LF	\$234.00	\$5,850.00	100%	\$5,850.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
80	JT-5	23 LF	\$315.00	\$7,245.00		\$0.00		\$0.00		\$0.00	\$0.00	\$0.00		\$0.00	100%	\$7,245.00	100%		
81	JT-4	19 LF	\$170.00	\$3,230.00		\$0.00		\$0.00		\$0.00	38%	\$1,216.96	22%	\$702.09	22%	\$702.09	19%	\$608.85	100%
82	JT-7	7 LF	\$241.00	\$1,687.00	89%	\$1,507.91	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00	11%	\$179.09	100%		
83	JT-6	30 LF	\$234.00	\$7,020.00	100%	\$7,020.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
84	JT-4	67 LF	\$170.00	\$11,390.00		\$0.00	100%	\$11,390.00	\$0.00		\$0.00	\$0.00		\$0.00		\$0.00	100%		
85	JT-5	35 LF	\$315.00	\$11,025.00	89%	\$9,854.60	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00	11%	\$1,170.40	100%		
86	JT-7	7 LF	\$241.00	\$1,687.00		\$0.00		\$0.00	100%	\$1,687.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
87	JT-7	27 LF	\$241.00	\$6,507.00	100%	\$6,507.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
88	JT-6	15 LF	\$234.00	\$3,510.00	100%	\$3,510.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
89	JT-7	35 LF	\$241.00	\$8,435.00		\$0.00		\$0.00		\$0.00	42%	\$3,566.42	25%	\$2,113.43	25%	\$2,113.43	8%	\$641.71	100%
90	JT-6	10 LF	\$234.00	\$2,340.00		\$0.00		\$0.00	100%	\$2,340.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
91	JT-8	40 LF	\$248.00	\$9,920.00	100%	\$9,920.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
92	JT-5	12 LF	\$315.00	\$3,780.00		\$0.00		\$0.00		\$0.00		100%	\$3,780.00		\$0.00		\$0.00	100%	
93	JT-5	12 LF	\$315.00	\$3,780.00		\$0.00		\$0.00		\$0.00			77%	\$2,899.58	23%	\$880.42	100%		
94	JT-5	12 LF	\$315.00	\$3,780.00		\$0.00		\$0.00	100%	\$3,780.00								100%	
95	JT-7	50 LF	\$241.00	\$12,050.00	61%	\$7,370.57	\$0.00		\$0.00	18%	\$2,213.12	11%	\$1,311.48	6%	\$756.62	3%	\$398.21	100%	
96	JT-4	15 LF	\$170.00	\$2,550.00		\$0.00		\$0.00		\$0.00					100%	\$2,550.00	100%		
97	JT-4	57 LF	\$170.00	\$9,690.00		\$0.00		\$0.00		\$0.00					100%	\$9,690.00	100%		
98	JT-4	40 LF	\$170.00	\$6,800.00		\$0.00		\$0.00		\$0.00					100%	\$6,800.00	100%		
99	JT-5	40 LF	\$315.00	\$12,600.00		\$0.00		\$0.00		\$0.00					100%	\$12,600.00	100%		
100	JT-5	40 LF	\$315.00	\$12,600.00		\$0.00		\$0.00		\$0.00					100%	\$12,600.00	100%		
101	JT-5	28 LF	\$315.00	\$8,820.00		\$0.00		\$0.00		\$0.00					100%	\$8,820.00	100%		
102	JT-5	66 LF	\$315.00	\$20,790.00		\$0.00		\$0.00		\$0.00					100%	\$20,790.00	100%		
103	JT-4	35 LF	\$170.00	\$5,950.00		\$0.00		\$0.00		\$0.00					100%	\$5,950.00	100%		
104	JT-1	10 LF	\$26,470.59	\$26,470.59		\$0.00		\$0.00	100%	\$26,470.59						\$0.00	100%		
105	JT-1	50 LF	\$132,352.94	\$132,352.94	50%	\$66,176.47		\$66,176.47	50%	\$66,176.47						\$0.00	100%		
106	JT-1	20 LF	\$52,941.18	\$52,941.18	50%	\$26,470.59		\$26,470.59	50%	\$26,470.59						\$0.00	100%		
107	JT-1	5 LF	\$13,235.29	\$13,235.29		\$0.00		\$0.00		\$0.00					100%	\$13,235.29	100%		
N/A	JT-3	218 CY	\$50.00	\$10,900.00		\$0.00	100%	\$10,900.00		\$0.00	\$0.00	\$0.00		\$0.00		\$0.00	100%		
Total				\$1,248,835.00		\$391,348.89		\$140,261.37		\$478,249.63		\$23,271.39		\$15,125.61		\$13,690.34		\$186,887.77	

Vaults and Pull boxes																		
Vault Size	Type	QTY	Unit Price [\$/F]	Total	PG&E Electric TOTAL	PG&E Gas TOTAL	AT&T TOTAL	Qwest TOTAL	TCG TOTAL	UCCO TOTAL	CITY TOTAL	% TOTAL						
Christy N9	JT-34	3	\$325.00	\$975.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$975.00	100%			
Christy N9	JT-34	4	\$325.00	\$1,300.00	0%	\$0.00	100%	\$1,300.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
Christy N9	JT-34	2	\$325.00	\$650.00	100%	\$650.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
6x19x9	JT-9	2	\$35,000.00	\$70,000.00	0%	\$0.00	100%	\$70,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
6x14x9	JT-10	1	\$30,000.00	\$30,000.00	0%	\$0.00	100%	\$30,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
6x9x9	JT-11	3	\$20,000.00	\$60,000.00	0%	\$0.00	100%	\$60,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
10x10x10	JT-13	1	\$25,000.00	\$25,000.00	100%	\$25,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
10x5.5x10	JT-14	1	\$25,000.00	\$25,000.00	100%	\$25,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
8x12x10	JT-15	2	\$25,000.00	\$50,000.00	100%	\$50,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
7x12x10	JT-16	1	\$25,000.00	\$25,000.00	100%	\$25,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
7x10x10	JT-17	1	\$25,000.00	\$25,000.00	100%	\$25,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
4.5x8.5x7.5	JT-18	3	\$15,000.00	\$45,000.00	100%	\$45,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
T3	JT-19	1	\$3,000.00	\$3,000.00	100%	\$3,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%			
3x5x4	JT-21	2	\$5,000.00	\$10,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$10,000.00	0%	\$0.00	100%			
3x5x4	JT-21	2	\$5,000.00	\$10,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$10,000.00	0%	\$0.00	100%			
3x5x4	JT-21	2	\$5,000.00	\$10,000.00	0%	\$0.00	0%	\$0.00	100%	\$10,000.00	0%	\$0.00	0%	\$0.00	100%			
IV-X	JT-30	6	\$1,000.00	\$6,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$6,000.00	100%			
III-X	JT-28	6	\$825.00	\$4,950.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$4,950.00	100%			
III-X-TR	JT-29	4	\$825.00	\$3,300.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$3,300.00	100%			
I	JT-22	8	\$325.00	\$2,600.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$2,600.00	100%			
I-TR	JT-23	1	\$325.00	\$325.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$325.00	100%			
II	JT-24	2	\$400.00	\$800.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$800.00	100%			
Muni	JT-32	2	\$12,000.00	\$24,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$24,000.00	100%			
Muni	JT-33	1	\$18,000.00	\$18,000.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	0%	\$0.00	100%	\$18,000.00	100%			
	SD-3	1	\$4,000.00	\$4,000.00			100%	\$4,000.00		\$0.00					100%			
	SD-5	1	\$4,000.00	\$4,000.00			0%	\$0.00	100%	\$4,000.00					100%			
Total				\$458,900.00	\$198,650.00	\$4,000.00	\$165,300.00	\$10,000.00	\$10,000.00	\$10,000.00	\$60,950.00							

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Conduit and other materials														
Material	Type	QTY	Unit Price [\$/F]	Total	PG&E Electric %	PG&E Gas %	AT&T %	Qwest %	TCG %	UCCO %	CITY %	% TOTAL	% TOTAL	
5" HDPE	MRY	2724 LF	\$18.00	\$49,032.00	0%	\$0.00	0%	\$0.00				100%	\$49,032.00	100%
2" HDPE	MRY	1372 LF	\$10.00	\$13,720.00	0%	\$0.00	0%	\$0.00				100%	\$13,720.00	100%
5" HDPE	MRY	180 LF	\$18.00	\$3,240.00	0%	\$0.00	0%	\$0.00				100%	\$3,240.00	100%
2" HDPE	MRY	60 LF	\$10.00	\$600.00	0%	\$0.00	0%	\$0.00				100%	\$600.00	100%
1-1/2" GRS	SFPUC SL	863 LF	\$16.00	\$13,808.00	0%	\$0.00	0%	\$0.00				100%	\$13,808.00	100%
4" HDPE	SFDT	1700 LF	\$15.00	\$25,500.00	0%	\$0.00	0%	\$0.00				100%	\$25,500.00	100%
2" PVC	SFDPT	4332 LF	\$6.00	\$25,992.00	0%	\$0.00	0%	\$0.00				100%	\$25,992.00	100%
6" PVC	PG&E	708 LF	\$11.00	\$7,788.00	100%	\$7,788.00	0%	\$0.00					\$0.00	100%
6" PVC	PG&E	680 LF	\$11.00	\$7,480.00	100%	\$7,480.00	0%	\$0.00					\$0.00	100%
6" PVC	PG&E	14004 LF	\$11.00	\$154,044.00	100%	\$154,044.00	0%	\$0.00					\$0.00	100%
5" PVC	PG&E	111 LF	\$16.00	\$1,776.00	100%	\$1,776.00	0%	\$0.00					\$0.00	100%
4" PVC	PG&E	2776 LF	\$8.20	\$22,763.20	100%	\$22,763.20	0%	\$0.00					\$0.00	100%
4" PVC	PG&E	123 LF	\$8.20	\$1,008.60	100%	\$1,008.60	0%	\$0.00					\$0.00	100%
4" PVC	AT&T	2880 LF	\$8.20	\$23,616.00	0%	\$0.00	100%	\$23,616.00					\$0.00	100%
4" PVC	AT&T	13076 LF	\$8.20	\$107,223.20	0%	\$0.00	100%	\$107,223.20					\$0.00	100%
4" PVC	AT&T	720 LF	\$8.20	\$5,904.00	0%	\$0.00	100%	\$5,904.00					\$0.00	100%
4" PVC	AT&T	13993 LF	\$8.20	\$114,742.60	0%	\$0.00	100%	\$114,742.60					\$0.00	100%
4" PVC	AT&T	5140 LF	\$8.20	\$42,148.00	0%	\$0.00	100%	\$42,148.00					\$0.00	100%
4" PVC	AT&T	4396 LF	\$8.20	\$36,047.20	0%	\$0.00	100%	\$36,047.20					\$0.00	100%
4" PVC	AT&T	0 LF	\$8.20	\$0.00	0%	\$0.00	100%	\$0.00					\$0.00	100%
1-1/2" QLOCK	QWEST	3452 LF	\$19.00	\$65,588.00	0%	\$0.00	0%	\$0.00	100%	\$65,588.00			\$0.00	100%
1-1/2" QLOCK	TCG	1842 LF	\$19.00	\$34,998.00	0%	\$0.00	0%	\$0.00	100%	\$34,998.00			\$0.00	100%
2" HDPE	MRY	360 LF	\$10.00	\$3,600.00	0%	\$0.00	0%	\$0.00				100%	\$3,600.00	100%
5" PVC	PG&E	0 LF	\$16.00	\$0.00	100%	\$0.00	0%	\$0.00					\$0.00	100%
1-1/2" QLOCK	UCCO	1814 LF	\$19.00	\$34,466.00	0%	\$0.00	0%	\$0.00		100%	\$34,466.00		\$0.00	100%
4" PVC	AT&T	726 LF	\$8.20	\$5,953.20	0%	\$0.00	100%	\$5,953.20					\$0.00	100%
4" PVC	AT&T	840 LF	\$8.20	\$6,888.00	0%	\$0.00	100%	\$6,888.00					\$0.00	100%
2" HDPE	SFDT	895 LF	\$10.00	\$8,950.00	0%	\$0.00	0%	\$0.00				100%	\$8,950.00	100%
3" PVC	MTA	432 LF	\$6.00	\$2,592.00	0%	\$0.00	0%	\$0.00				100%	\$2,592.00	100%
6" PVC	PG&E	0 LF	\$11.00	\$0.00	100%	\$0.00	0%	\$0.00					\$0.00	100%
4" PVC	PG&E	0 LF	\$8.20	\$0.00	100%	\$0.00	0%	\$0.00					\$0.00	100%
4" HDPE	MRY	0 LF	\$15.00	\$0.00	0%	\$0.00	0%	\$0.00				100%	\$0.00	100%
2" PVC	AT&T	235 LF	\$6.00	\$1,410.00	0%	\$0.00	100%	\$1,410.00					\$0.00	100%
3" PVC	PG&E	563 LF	\$6.00	\$3,378.00	100%	\$3,378.00	0%	\$0.00					\$0.00	100%
2" HDPE	MRY	0 LF	\$10.00	\$0.00	0%	\$0.00	0%	\$0.00				100%	\$0.00	100%
6" GRS	PG&E	684 LF	\$49.00	\$33,516.00	100%	\$33,516.00	0%	\$0.00					\$0.00	100%
3" GRS	PG&E	40 LF	\$33.00	\$1,320.00	100%	\$1,320.00	0%	\$0.00					\$0.00	100%
2" GRS	SFDT	22 LF	\$20.00	\$440.00	0%	\$0.00	0%	\$0.00				100%	\$440.00	100%
2" PVC	PG&E	718 LF	\$6.00	\$4,308.00	100%	\$4,308.00	0%	\$0.00					\$0.00	100%
2" GRS	MRY	356 LF	\$20.00	\$7,120.00	0%	\$0.00	0%	\$0.00				100%	\$7,120.00	100%
2" PVC	MTA	21 LF	\$6.00	\$126.00	0%	\$0.00	0%	\$0.00				100%	\$126.00	100%
2" GRS	MTA	3 LF	\$20.00	\$60.00	0%	\$0.00	0%	\$0.00				100%	\$60.00	100%
4" GRS	PG&E	170 LF	\$33.00	\$5,610.00	100%	\$5,610.00	0%	\$0.00					\$0.00	100%
4" GRS	AT&T	120 LF	\$33.00	\$3,960.00	0%	\$0.00	100%	\$3,960.00					\$0.00	100%
2-INCH GAS	PG&E G	202 LF	\$20.00	\$4,040.00	0%	\$0.00	100%	\$4,040.00					\$0.00	100%
6-INCH GAS	PG&E G	603 LF	\$55.00	\$33,165.00	0%	\$0.00	100%	\$33,165.00					\$0.00	100%
Total				\$917,921.00		\$242,991.80		\$347,892.20		\$65,588.00		\$34,998.00	\$34,466.00	\$154,780.00

Additional work																	
Change ID	Total	%	PG&E Electric TOTAL	%	PG&E Gas TOTAL	%	AT&T TOTAL	%	Qwest TOTAL	%	TCG TOTAL	%	UCCO TOTAL	%	CITY TOTAL	% TOTAL	
FA 2386	\$6,354.28								47%	\$2,990.25	24%	\$1,495.12	21%	\$1,308.23	9%	\$560.67	100%
FA 2396	\$6,454.78								47%	\$3,037.54	24%	\$1,518.77	21%	\$1,328.93	9%	\$569.54	100%
FA 2397	\$4,966.45								47%	\$2,337.15	24%	\$1,168.58	21%	\$1,022.50	9%	\$438.22	100%
FA 2515	\$271.09								100%	\$271.09							100%
FA 2523	\$1,338.03								100%	\$1,338.03							100%
PEC QWT	\$12,533.42								100%	\$12,533.42							100%
FA 2529	\$414.22										100%	\$414.22					100%
FA 2530	\$643.55										100%	\$643.55					100%
PEC TCG	\$5,236.55										100%	\$5,236.55					100%
																	0%
PGE Trend 001	\$66,084.09	100%	\$66,084.09														100%
PGE Trend 005	\$204,609.63				100%	\$204,609.63											100%
PGE Trend 007	\$46,366.21	100%	\$46,366.21														100%
PGE Trend 008	\$17,193.17	100%	\$17,193.17														100%
PGE Trend 009	\$98,439.15				100%	\$98,439.15											100%
PGE Trend 010	\$80,000.00	100%	\$80,000.00														100%
PGE Trend 011	\$61,544.14	100%	\$61,544.14														100%
PGE Trend 022	\$7,424.14	100%	\$7,424.14														100%
PGE Trend 023	\$23,633.17	100%	\$23,633.17														100%
PGE Trend 025	\$6,465.79	100%	\$6,465.79														100%
PGE Trend 026	\$55,231.06				100%	\$55,231.06											100%
PGE Trend 027	\$4,562.17				100%	\$4,562.17											100%
PGE Trend 028	\$44,530.20	100%	\$44,530.20														100%
PGE Trend 031	\$43,881.81	100%	\$43,881.81														100%
PGE Trend 032	(\$30,706.00)	100%	(\$30,706.00)														100%
																	0%
SFMTA CM #7	\$56,000.00						100%	\$56,000.00									100%
SFMTA CM #11	\$188,000.00						100%	\$188,000.00									100%
SFMTA CM #14	\$100,228.23						100%	\$100,228.23									100%
GE-4	\$69,708.10						100%	\$69,708.10									100%
Trend 43	\$52,606.96						100%	\$52,606.96									100%
Trend 72	\$15,020.04						100%	\$15,020.04									100%
Trend 80	\$54,604.26						100%	\$54,604.26									100%
DAMAGED Cond.	(\$23,813.60)						100%	(\$23,813.60)									100%
																	0%
Total	\$1,279,825.09		\$366,416.72		\$362,842.01		\$512,353.99		\$22,507.49		\$10,476.79		\$3,659.66		\$1,568.43		

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Percentage breakdown																	
Note: Total excludes additional work																	
				13.2%	\$832,990.69	2.9%	\$181,466.37	15.7%	\$991,441.83	1.6%	\$98,859.39	1.0%	\$60,123.61	0.9%	\$58,156.34	6.4%	\$402,617.77

Ancillary Work																	
	Type	Price	%	PG&E Electric TOTAL	%	PG&E Gas TOTAL	%	AT&T TOTAL	%	Qwest TOTAL	%	TCG TOTAL	%	UCCO TOTAL	%	CITY TOTAL	% TOTAL
GE-1	MOBILIZATION AND DEMOBILIZATION	\$2,500,000.00	13.19%	\$329,839.90	2.87%	\$71,855.36	15.70%	\$392,581.90	1.57%	\$39,145.42	0.95%	\$23,807.19	0.92%	\$23,028.21	6.38%	\$159,424.83	42%
GE-2	CURRENT SCHEDULES	\$20,000.00	13.19%	\$2,638.72	2.87%	\$574.84	15.70%	\$3,140.66	1.57%	\$313.16	0.95%	\$190.46	0.92%	\$184.23	6.38%	\$1,275.40	42%
TR-1	TRAFFIC REGULATION	\$500,000.00	13.19%	\$65,967.98	2.87%	\$14,371.07	15.70%	\$78,516.38	1.57%	\$7,829.08	0.95%	\$4,761.44	0.92%	\$4,605.64	6.38%	\$31,884.97	42%
TR-2	TRAFFIC WATER FILLED BARRIER	\$15,000.00	13.19%	\$1,979.04	2.87%	\$431.13	15.70%	\$2,355.49	1.57%	\$234.87	0.95%	\$142.84	0.92%	\$138.17	6.38%	\$956.55	42%
TR-3	CHANGEABLE MESSAGE SIGNS	\$65,000.00	13.19%	\$8,575.84	2.87%	\$1,868.24	15.70%	\$10,207.13	1.57%	\$1,017.78	0.95%	\$618.99	0.92%	\$598.73	6.38%	\$4,145.05	42%
TR-4	CONSTRUCTION AREA AND SPECIAL TRAFFIC SIGNS	\$3,000.00	13.19%	\$395.81	2.87%	\$86.23	15.70%	\$471.10	1.57%	\$46.97	0.95%	\$28.57	0.92%	\$27.63	6.38%	\$191.31	42%
TR-5	TEMPORARY PAVEMENT MARKING, DELINEATION TAPE AND OVERLAY RAISED MARKERS AFTER FINAL PAVING TRAFFIC SUPERVISORS PROVIDED BY TRAFFIC SUB-CONTRACTOR	\$5,600.00	13.19%	\$738.84	2.87%	\$160.96	15.70%	\$879.38	1.57%	\$87.69	0.95%	\$53.33	0.92%	\$51.58	6.38%	\$357.11	42%
TR-6	ALLOWANCE FOR MANUAL TRAFFIC CONTROL	\$175,151.25	13.19%	\$23,108.75	2.87%	\$5,034.22	15.70%	\$27,504.48	1.57%	\$2,742.55	0.95%	\$1,667.94	0.92%	\$1,613.37	6.38%	\$11,169.38	42%
TR-7	RELOCATE THREE TREES IN PLANTER BOXES	\$120,000.00	13.19%	\$15,832.32	2.87%	\$3,449.06	15.70%	\$18,843.93	1.57%	\$1,878.98	0.95%	\$1,142.75	0.92%	\$1,105.35	6.38%	\$7,652.39	42%
UD-1	RELOCATE FOURTEEN TREES IN PLANTER BOXES	\$2,000.00	11.11%	\$222.22	11.11%	\$222.22	11.11%	\$222.22	11.11%	\$222.22	11.11%	\$222.22	11.11%	\$222.22	33.33%	\$666.67	100%
UD-2	HANDLING AND DISPOSAL OF STREET TREES	\$2,498.95	11.11%	\$277.66	11.11%	\$277.66	11.11%	\$277.66	11.11%	\$277.66	11.11%	\$277.66	11.11%	\$277.66	33.33%	\$832.98	100%
UD-3	HANDLING AND DISPOSAL OF CALIFORNIA CLASS 2 (NON-HAZARDOUS) EXCAVATED MATERIAL	\$3,000.00	13.19%	\$395.81	2.87%	\$86.23	15.70%	\$471.10	1.57%	\$46.97	0.95%	\$28.57	0.92%	\$27.63	6.38%	\$191.31	42%
UD-7	TRANSPORTATION OF CALIFORNIA CLASS 2 (NON-HAZARDOUS) EXCAVATED MATERIAL	\$90,000.00	13.19%	\$11,874.24	2.87%	\$2,586.79	15.70%	\$14,132.95	1.57%	\$1,409.24	0.95%	\$857.06	0.92%	\$829.02	6.38%	\$5,739.29	42%
UD-8	PRE-EXCAVATION ENVIRONMENTAL SOIL PROFILING	\$90,000.00	13.19%	\$11,874.24	2.87%	\$2,586.79	15.70%	\$14,132.95	1.57%	\$1,409.24	0.95%	\$857.06	0.92%	\$829.02	6.38%	\$5,739.29	42%
UD-10	REMOVE AND REINSTALL STREETLIGHT POLE ON NEW FOUNDATION	\$14,000.00	13.19%	\$1,847.10	2.87%	\$402.39	15.70%	\$2,198.46	1.57%	\$219.21	0.95%	\$133.32	0.92%	\$128.96	6.38%	\$892.78	42%
UD-11	RELOCATE THREE FLOWER STANDS	\$6,000.00	11.11%	\$666.67	11.11%	\$666.67	11.11%	\$666.67	11.11%	\$666.67	11.11%	\$666.67	11.11%	\$666.67	33.33%	\$2,000.00	100%
UD-12	ALL DEMOLITION WORK WHICH IS OTHERWISE NOT PAID FOR	\$13,500.00	11.11%	\$1,500.00	11.11%	\$1,500.00	11.11%	\$1,500.00	11.11%	\$1,500.00	11.11%	\$1,500.00	11.11%	\$1,500.00	33.33%	\$4,500.00	100%
UD-13	ALLOWANCE OF UTILITY SERVICES FOR THREE FLOWER STANDS	\$50,000.00	13.19%	\$6,596.80	2.87%	\$1,437.11	15.70%	\$7,851.64	1.57%	\$782.91	0.95%	\$476.14	0.92%	\$460.56	6.38%	\$3,188.50	42%
UD-14	REMOVE ELEVATOR PIT AND HATCH	\$19,574.91	13.19%	\$2,582.63	2.87%	\$562.62	15.70%	\$3,073.90	1.57%	\$306.51	0.95%	\$186.41	0.92%	\$180.31	6.38%	\$1,248.29	42%
SD-1	REMOVE SEWER EJECTOR SUMP PIT	\$12,000.00	11.11%	\$1,333.33	11.11%	\$1,333.33	11.11%	\$1,333.33	11.11%	\$1,333.33	11.11%	\$1,333.33	11.11%	\$1,333.33	33.33%	\$4,000.00	100%
SD-2	REMOVE FUEL TANK AND FOUNDATION	\$10,000.00	11.11%	\$1,111.11	11.11%	\$1,111.11	11.11%	\$1,111.11	11.11%	\$1,111.11	11.11%	\$1,111.11	11.11%	\$1,111.11	33.33%	\$3,333.33	100%
SD-4	REMOVE INTERIOR BASEMENT WALLS	\$15,000.00	11.11%	\$1,666.67	11.11%	\$1,666.67	11.11%	\$1,666.67	11.11%	\$1,666.67	11.11%	\$1,666.67	11.11%	\$1,666.67	33.33%	\$5,000.00	100%
SD-6	REMOVE EXTERIOR BASEMENT WALLS	\$104,835.00	11.11%	\$11,648.33	11.11%	\$11,648.33	11.11%	\$11,648.33	11.11%	\$11,648.33	11.11%	\$11,648.33	11.11%	\$11,648.33	33.33%	\$34,945.00	100%
SD-7	REMOVE BASMENT SLAB ON GRADE	\$44,565.00	11.11%	\$4,951.67	11.11%	\$4,951.67	11.11%	\$4,951.67	11.11%	\$4,951.67	11.11%	\$4,951.67	11.11%	\$4,951.67	33.33%	\$14,855.00	100%
SD-8	REMOVE ELEVATED STRUCTURAL SLABS AND STRUCTURAL SIDEWALKS	\$149,345.00	11.11%	\$16,593.89	11.11%	\$16,593.89	11.11%	\$16,593.89	11.11%	\$16,593.89	11.11%	\$16,593.89	11.11%	\$16,593.89	33.33%	\$49,781.67	100%
SD-9	REMOVE RAISED CONCRETE PLATFORM	\$147,320.00	11.11%	\$16,368.89	11.11%	\$16,368.89	11.11%	\$16,368.89	11.11%	\$16,368.89	11.11%	\$16,368.89	11.11%	\$16,368.89	33.33%	\$49,106.67	100%
SD-10	ALLOWANCE FOR STRUCTURAL DEMOLITION ITEMS NOT SPECIFIED	\$6,000.00	11.11%	\$666.67	11.11%	\$666.67	11.11%	\$666.67	11.11%	\$666.67	11.11%	\$666.67	11.11%	\$666.67	33.33%	\$2,000.00	100%
SD-11	BUILDING WATERPROOFING	\$83,733.40	13.19%	\$11,047.45	2.87%	\$2,406.68	15.70%	\$13,148.89	1.57%	\$1,311.11	0.95%	\$797.38	0.92%	\$771.29	6.38%	\$5,339.67	42%
WP-1	ASPAHLT CONCRETE (TYPE A, 1/2-INCH MAXIMUM WITH MEDIUM GRADING)	\$350,000.00	11.11%	\$38,888.89	11.11%	\$38,888.89	11.11%	\$38,888.89	11.11%	\$38,888.89	11.11%	\$38,888.89	11.11%	\$38,888.89	33.33%	\$116,666.67	100%
RP-1	FULL DEPTH PLANING PER 2-INCH DEPTH OF CUT	\$82,176.50	11.11%	\$9,130.72	11.11%	\$9,130.72	11.11%	\$9,130.72	11.11%	\$9,130.72	11.11%	\$9,130.72	11.11%	\$9,130.72	33.33%	\$27,392.17	100%
RP-2	8-INCH THICK CONCRETE BASE	\$58,046.00	11.11%	\$6,449.56	11.11%	\$6,449.56	11.11%	\$6,449.56	11.11%	\$6,449.56	11.11%	\$6,449.56	11.11%	\$6,449.56	33.33%	\$19,348.67	100%
RP-3	8-INCH THICK CONCRETE PAVEMENT	\$27,234.00	11.11%	\$3,026.00	11.11%	\$3,026.00	11.11%	\$3,026.00	11.11%	\$3,026.00	11.11%	\$3,026.00	11.11%	\$3,026.00	33.33%	\$9,078.00	100%
RP-4	6-INCH WIDE CONCRETE CURB	\$5,460.00	11.11%	\$606.67	11.11%	\$606.67	11.11%	\$606.67	11.11%	\$606.67	11.11%	\$606.67	11.11%	\$606.67	33.33%	\$1,820.00	100%
RP-6	2-FOOT WIDE CONCRETE GUTTER	\$10,304.00	11.11%	\$1,144.89	11.11%	\$1,144.89	11.11%	\$1,144.89	11.11%	\$1,144.89	11.11%	\$1,144.89	11.11%	\$1,144.89	33.33%	\$3,434.67	100%
RP-7	3-1/2-INCH THICK CONCRETE SIDEWALK	\$14,140.00	11.11%	\$1,571.11	11.11%	\$1,571.11	11.11%	\$1,571.11	11.11%	\$1,571.11	11.11%	\$1,571.11	11.11%	\$1,571.11	33.33%	\$4,713.33	100%
RP-8	CONCRETE CURB RAMP	\$261,052.50	11.11%	\$29,005.83	11.11%	\$29,005.83	11.11%	\$29,005.83	11.11%	\$29,005.83	11.11%	\$29,005.83	11.11%	\$29,005.83	33.33%	\$87,017.50	100%
RP-9	CAST-IN-PLACE & PNEUMATICALLY PLACED CONCRETE	\$42,500.00	11.11%	\$4,722.22	11.11%	\$4,722.22	11.11%	\$4,722.22	11.11%	\$4,722.22	11.11%	\$4,722.22	11.11%	\$4,722.22	33.33%	\$14,166.67	100%
ET-1	STREET LIGHTING	\$50,000.00	13.19%	\$6,596.80	2.87%	\$1,437.11	15.70%	\$7,851.64	1.57%	\$782.91	0.95%	\$476.14	0.92%	\$460.56	6.38%	\$3,188.50	42%
SR-1	STEEL REINFORCEMENTS	\$391,200.00	11.11%	\$43,466.67	11.11%	\$43,466.67	11.11%	\$43,466.67	11.11%	\$43,466.67	11.11%	\$43,466.67	11.11%	\$43,466.67	33.33%	\$130,400.00	100%
SR-2	195 KIPS COMPRESSION MICROPILES	\$330,912.00	11.11%	\$36,768.00	11.11%	\$36,768.00	11.11%	\$36,768.00	11.11%	\$36,768.00	11.11%	\$36,768.00	11.11%	\$36,768.00	33.33%	\$110,304.00	100%
SR-3	240 KIPS COMPRESSION MICROPILES	\$260,000.00	11.11%	\$28,888.89	11.11%	\$28,888.89	11.11%	\$28,888.89	11.11%	\$28,888.89	11.11%	\$28,888.89	11.11%	\$28,888.89	33.33%	\$86,666.67	100%
SR-4	300 KIPS COMPRESSION MICROPILES	\$66,000.00	11.11%	\$7,333.33	11.11%	\$7,333.33	11.11%	\$7,333.33	11.11%	\$7,333.33	11.11%	\$7,333.33	11.11%	\$7,333.33	33.33%	\$22,000.00	100%
SR-5	150 KIPS TENSION MICROPILES	\$48,000.00	11.11%	\$5,333.33	11.11%	\$5,333.33	11.11%	\$5,333.33	11.11%	\$5,333.33	11.11%	\$5,333.33	11.11%	\$5,333.33	33.33%	\$16,000.00	100%
SR-6	90 KIPS TENSION MICROPILES	\$162,500.00	11.11%	\$18,055.56	11.11%	\$18,055.56	11.11%	\$18,055.56	11.11%	\$18,055.56	11.11%	\$18,055.56	11.11%	\$18,055.56	33.33%	\$54,166.67	100%
SR-7	115 KIPS TENSION MICROPILES	\$44,200.00	11.11%	\$4,911.11	11.11%	\$4,911.11	11.11%	\$4,911.11	11.11%	\$4,911.11	11.11%	\$4,911.11	11.11%	\$4,911.11	33.33%	\$14,733.33	100%
SR-8	SEGMENTAL UNDERPINNING	\$62,400.00	11.11%	\$6,933.33	11.11%	\$6,933.33	11.11%	\$6,933.33	11.11%	\$6,933.33	11.11%	\$6,933.33	11.11%	\$6,933.33	33.33%	\$20,800.00	100%
SR-9	260 KIPS COMPRESSION MICROPILES	\$58,000.00	11.11%	\$6,444.44	11.11%	\$6,444.44	11.11%	\$6,444.44	11.11%	\$6,444.44	11.11%	\$6,444.44	11.11%	\$6,444.44	33.33%	\$19,333.33	100%
SR-10	STREET LIGHTING	\$48,000.00	11.11%	\$5,333.33	11.11%	\$5,333.33	11.11%	\$5,333.33	11.11%	\$5,333.33	11.11%	\$5,333.33	11.11%	\$5,333.33	33.33%	\$16,000.00	100%
EL-3	Total	\$75,000.00	13.19%	\$9,895.20	2.87%	\$2,155.66	15.70%	\$11,777.46	1.57%	\$1,174.36	0.95%	\$714.22	0.92%	\$690.85	6.38%	\$4,782.75	42%
				\$826,808.44		\$426,513.49		\$924,160.43		\$375,759.96		\$351,960.80		\$350,752.11		\$1,192,430.35	

Summary									
		PG&E Electric TOTAL	PG&E Gas TOTAL	AT&T TOTAL	Qwest TOTAL	TCG TOTAL	UCCO TOTAL	CITY TOTAL	% TOTAL
		%	%	%	%	%	%	%	%
Trenching, Backfill, Pavement Demo/Restoration	\$1,248,835.00	\$391,348.89	\$140,261.37	\$478,249.63	\$23,271.39	\$15,125.61	\$13,690.34	\$186,887.77	
Vaults and Pull boxes	\$458,900.00	\$198,650.00	\$4,000.00	\$165,300.00	\$10,000.00	\$10,000.00	\$10,000.00	\$60,950.00	
Conduit and other materials	\$917,921.00	\$242,991.80	\$37,205.00	\$347,892.20	\$65,588.00	\$34,998.00	\$34,466.00	\$154,780.00	
Additional work	\$1,279,825.09	\$366,416.72	\$362,842.01	\$512,353.99	\$22,507.49	\$10,476.79	\$3,659.66	\$1,568.43	
Ancillary Work	\$4,448,385.57	\$826,808.44	\$426,513.49	\$924,160.43	\$375,759.96	\$351,960.80	\$350,752.11	\$1,192,430.35	
Site Management - 5%	\$417,693.33	\$101,310.79	\$48,541.09	\$121,397.81	\$24,856.34	\$21,128.06	\$20,628.41	\$79,830.83	
Grand Total		\$2,127,526.64	\$1,019,362.95	\$2,549,354.05	\$521,983.18	\$443,689.26	\$433,196.52	\$1,676,447.38	

Initial Invoice	\$1,438,119.50	\$431,478.00	\$1,508,764.00	\$264,262.00	\$97,724.00	\$81,104.00
Interim Invoice	\$1,438,119.50	\$431,478.00				
CN 1250 overpayment	\$204,901.48					
Remaining Amount	(\$953,613.84)	\$156,406.95	\$1,040,590.05	\$257,721.18	\$345,965.26	\$352,092.52

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT

COR 030

Recommendation: Confirm justification of Merit for COR 030, Phase 1 Costs – Hazardous Waste Allowance. There is no time extension requested or recommended for this work.

Facts: Spoils from excavations in the Caltrans yard (bounded by Fourth Street, Fifth Street, Harrison Street, and Bryant Street) have been rejected by Class 2 facilities. Excavation and disposal of the spoils was required in order for BIH to install the temporary electrical substation required for TBM power and site power, install site utilities, install best management practices for stormwater pollution prevention, and construct jet grout spoils pits. The Contractor tested the material in accordance with the requirements of potential disposal facilities, which is required by the contract. A total of 4,065.70 tons of hazardous material has been encountered and disposed of at Class 1 facilities.

The test levels and test frequencies are required by contract to be performed per the requirements of the Contractor's disposal facility. SFDPW-SAR (Site Assessment and Remediation) provided guidance to the Contractor regarding sampling and testing protocols, and stockpiles from different areas were kept separate in the Materials Classification Area (MCA) and labeled during the classification process in accordance with the contract. Potential disposal sites provided required test levels. The Contractor retained a third party testing agency to perform sampling and testing of soils at locations within the Caltrans yard where they anticipated making excavations.

The Contractor took the following steps to control cost:

- Reused excavated materials as backfill as much as possible.
- Sampled the soil at depths of 2-feet, 4-feet, 6-feet, and 8-feet in an attempt to isolate an elevation below which clean fill could be found.
- Provided test results consistent with Class 2 to facilities for possible acceptance.

Soils in the launch box ramp and in the northeast portion of the site tested as Class 3 or Class 2 (nonhazardous). Soils in the MCA tested as either Class 2 or Class 1 but were rejected by the Class 2 disposal facilities:

- "All material represented by samples 11/8/12-01, 02, 03 cannot be accepted by BSP. The level of contamination and proximity of material to this contamination represents a condition whereby BSP cannot accept the material." See Figure 8 of COR package.
- "... we will not be able to accept any soil from the area represented by samples 11/8/12 – 01, 02 and 03 at our bay area landfills. Based on the sample results and the proximity of the two types of wastes we do not think that we can be guaranteed of only receiving the non-hazardous soils. The excavation area is too

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small to be able to separate the non-hazardous soil from the California hazardous soil.” See Figure 10 of COR package.

The contaminant that was found and caused the Class 1 characterizations was lead.

The Contractor elected to utilize Waste Solutions Group as a disposal company to transfer, transport and dispose of the Class 1 hazardous material due to the fact that Baylands Soil Processing and Republic Services landfills would not accept the excavated materials.

Supplemental information: The Contractor also retained an industrial hygienist following the receipt of the analytical results for the soil to determine whether special personal protective equipment would be required to protect workers against airborne contaminants. The industrial hygienist determined no additional equipment to be required. The cost for the industrial hygienist is incidental to the work and is not being reimbursed under this allowance.

Justification: The Contractor followed the proper procedures and protocols and legally disposed of the excavated materials. The soil in the Caltrans yard is simply too contaminated to be accepted at Class 2 facilities and therefore must be transported and disposed of as Class 1 hazardous waste. The City Attorney is currently investigating whether the provisions of the lease of the Caltrans Yard provide for reimbursement of cost for disposal of hazardous waste.

The cost is allowed to be paid by bid Item ES-8 – Additional Costs of Hazardous Waste Allowance. As set forth in Specification Section 01 20 00, Price and Payment Procedures, “Estimates for progress payment purposes will be based on the following:

1. The additional cost is defined as $(A+B) - (C+D)$ where:
 - a. A is the cost to haul material found to contain hazardous material from the Materials Classification Area (MCA) to a landfill certified to receive such material.
 - b. B is the dump fee charged for material found to contain hazardous materials.
 - c. C is the cost to haul uncontaminated material from the MCA to the Contractor’s regular dump site.
 - d. D is any fee for uncontaminated material charged by the Contractor’s regular disposal site.”

$$(A+B) - (C+D): (\$387,633.11 + \$0) - (\$83,500 + \$0) = \$304,133.11$$

Note: Cost of Dump Fees (B) is included in the cost of (A) incurred for Waste Solutions Group to haul and dispose of the hazardous materials. (C) is the number of loads used multiplied by \$500/load as quoted by Economy Trucking to haul and dispose of the non-

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hazardous materials (See Figure 15 of the COR package). Cost of Dump Fees (D) is included in the cost of (C).

The additional costs for this change are \$304,133.11. In order to keep from exceeding the ES-8 bid item amount of \$200,000 Phase 1 additional costs for encountering hazardous materials were made equal to \$195,000.00 (\$198,276.00 with Contractor Payment & Performance Bonds & Builder's Risk Insurance). Phase 2 additional costs for encountering hazardous materials are equal to the balance of the additional costs or \$109,133.11 (\$304,133.11 - \$195,000) and will be included in COR 054.

Additional costs for encountering hazardous materials during excavation for the tunnel muck staging area inside the Caltrans yard will be submitted under a future COR (Phase 3) and is estimated to total \$150,000. Excavation for the staging area has not occurred yet.

No separate payment is to be made for handling, segregating, temporary stockpiling and storage, implementation of best management practices related to temporary stockpiling and storage, or sampling and testing.

The Launch box and Moscone Station locations have been similarly pre-classified and have been classified as Class 3 so they are not expected to generate additional cost. The UMS Station/Ellis Shaft, Retrieval Shaft, and Tunnel Spoils have not been pre-classified, but based on the investigation conducted for the UMS station contract and the Geotechnical Baseline Report for this contract the excavation of the top ten feet of UMS station may generate additional cost but the other locations are not expected to generate additional cost.

Change Type: Bid Item ES-8 - Additional Costs of Hazardous Waste Allowance.

By: _____ Date _____
Sarah Wilson
Resident Engineer

_____ Date _____
Configuration Management Board
Approval

headwalls and adjacent ground modification at the Union Square/Market Street Station.

- b. The cost of the headwalls at the Moscone station is paid for under other bid items.
- c. Estimates for progress payment purposes will be made based on the Contractor's approved schedule of values.

7. Bid Item ES-7—Construction of Headwalls at Moscone Station

- a. The lump sum price for this bid item shall include full payment for the cost of work and materials necessary for construction of slurry wall headwalls and adjacent ground modification at the Moscone Station.
- b. The cost of the headwalls at the Union Square/Market Street station is paid for under other bid items.
- c. Estimates for progress payment purposes will be made based on the Contractor's approved schedule of values.

8. Bid Item ES-8—Additional Costs of Hazardous Waste Allowance

- a. The lump sum allowance for this bid item will be applied to payment of demonstrated additional costs of excavating, handling and disposing of excavated material found to contain hazardous material to a permitted landfill over that which can be disposed of at an unregulated dump site.
- b. Estimates for progress payment purposes will be based on the following:
 - 1) The additional cost is defined as $(A + B) - (C + D)$ where:
 - a) A is the cost to haul material found to contain hazardous material from the Materials Classification Area (MCA) to a landfill certified to receive such material.
 - b) B is the dump fee charged for material found to contain hazardous materials.
 - c) C is the cost to haul uncontaminated material from the MCA to the Contractor's regular dump site.
 - d) D is any fee for uncontaminated material charged by the Contractor's regular disposal site.
 - 2) Payment will not be made for:
 - a) Hauling and disposing of contaminated materials so contaminated for reasons within the control or through the action of the Contractor.
 - b) Handling and segregating excavated material until sampling and testing have been performed, and the results of testing are known.

- c) Hauling and disposing of materials that can be legally disposed of at an unregulated dump site.
- 3) The amount paid under this item shall exclude markups of any kind.

C. Structural Items—ST

1. **Bid Item ST-1—Construction of Fourth Street Portal Structure**

- a. The lump sum price for this bid item shall include full payment for the cost of work and materials necessary for the construction of the Fourth Street Portal Structure .
- b. The cost of the TBM Launch Box is paid for under other bid items.
- c. Estimates for progress payment purposes will be made based on the Contractor's approved schedule of values.

2. **Bid Item ST-2—Construction of Tunnels**

- a. The lump sum price for this bid item shall include full payment for the cost of work and materials necessary for construction of tunnels.
- b. The cost of ground treatment and building protection measures is paid for under other bid items.
- c. Estimates for progress payment purposes will be made based on the Contractor's approved schedule of values.

3. **Bid Item ST-3—Construction of Cross Passages**

- a. The lump sum price for this bid item shall include full payment for the cost of work and materials necessary to construct cross passages.
- b. The cost of ground treatment and building protection measures is paid for under other bid items.
- c. Estimates for progress payment purposes will be made based on the Contractor's approved schedule of values.

4. **Bid Item ST-4—Construction of Base Bid Permanent Retrieval Shaft**

- a. The lump sum price for this bid item shall include full payment for the cost of work and materials necessary to construct the Base Bid Permanent Retrieval Shaft on Columbus Street.
- b. The cost of designing, furnishing, installing, and maintaining sheeting, shoring, and bracing of trenches and open excavations five feet or deeper is paid for under other bid items. The cost of ground treatment and building protection measures is paid for under other bid items.
- c. Estimates for progress payment purposes will be made based on the Contractor's approved schedule of values.

5. **Bid Item ST-OP 1—Construction of Retrieval Shaft Option**

Table 3-22 Results of Chemical Analyses for Soil Samples

Boring Designation	Companion Geotechnical Boring	Location	Sample ID	Sample Depth (feet bgs)	Metals (mg/kg)											Polynuclear Aromatic Hydrocarbons (µg/L)										Volatile Organic Compounds (µg/L)		TPH (mg/kg)		pH						
					Arsenic	Barium	Cadmium	Total Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Vanadium	Zinc	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Benzo(g,h,i) perylene	Chrysene	Fluoranthene	Ideno (1,2,3-c,d) pyrene	Phenanthrene	Pyrene	Carbon Disulfide		cis 1,2-Dichloroethylene	TPHd	TPHmo			
EB-01	CS-1	Stockton Street near Washington Street	EB01S8.5	8.5	8.4	81	1.3	40	7.5	14	86	0.1		32	31	45	0.01												9.1	58	11.0					
			EB01S20	20	2.2	51	1.2	65	9	6.4	1.6			43	49	21																		8.1		
			EB01S40	40	3.2	44	1.1	52	6.8	7.4	2.7			23	49	20																				7.7
			EB01S55	55	1.9	63	1.2	50	13	7.1	2.9			29	45	23																			7.4	
EB-02	CS-2a	Chinatown Station (CTS)	EB02S7	7	2	37	0.7	32	4.7	4.9	1.6			33	24	16																			7.2	
			EB02S20	20	2.3	53	1.6	85	9.7	13	3.9			30	59	26																			7.4	
			EB02S54	54	5.7	170	1.5	27	9.7	57	9.7			39	22	200																			8.0	
			EB02S70	70	7.2	190	1.6	27	12	85	12	0.5		39	26	130																			7.8	
EB-03	CS-6	Union Square/ Market Street Station (UMS)	EB03S8.5	9	2.6	10		23	4.1	34	1.3			18	18	33																			8.4	
			EB03S40	40	1.9	33	0.9	59	9.6	5.7	1.5			37	42	20																			7.5	
			EB03S70.5	71		23	0.7	45	8.3	4	1.3			40	34	17																			8.7	
			EB03S90.5	91	1.2	28	0.7	41	6.9	6.7	2			36	29	22																			8.3	
EB-04	-	Fourth Street near Mission Street	EB04S80.5	80.5	1.1	22	0.6	41	6.1	8.8	1.3			32	26	22													4.1					8.6		
			EB04S85.5	85.5	1.1	22	0.7	44	6.5	5.3	1.4			33	28	19													1.9					9.0		
			EB04S90.5	91	1.7	40	0.9	32	5.9	18	3.3			30	26	30																			9.9	
			EB04S95.5	96	1	32	1.2	35	7.1	18	5			36	27	36																			9.9	
EB-05	CS-7	Moscone Station (MOS)	EB05S7	7	2.2	13	0.7	33	4.5	3.2	3			18	28	14																			6.3	
			EB05S28	28	3.5	15	0.8	44	5.7	4.1	1.1		1.4	22	45	17											6.2								7.2	
			EB05S40	40	2	29	0.9	55	7.1	5.9	1.8			46	37	19												17							7.7	
			EB05S60	60	2.1	28	0.9	45	8.2	4.9	1.5			49	31	18																			8.0	
EB-06	CS-8	TBM Launch Box / Portal	EB06S6	6	3.3	52	0.8	35	6.2	18	55	0.5		22	28	38	0.01	0.01	0.03	0.03	0.04	0.01	0.03	0.03	0.04	0.03	0.03	0.39			13		8.5			
			EB06S35	35	1.1	47	0.7	54	6.9	13	2.1			32	27	23																			9.2	
			EB06S44	44	1.6	23	0.8	43	7.7	8.5	1.5			37	34	23																			8.7	
			EB06S58	58	2.3	60	1.2	41	5.5	33	5.7			32	22	57																			8.0	
EB-07	CS-9	Fourth Street near Bryant Street	EB07S6.5	7	2.1	8.9		22	3.7	2.4	1.2			17	17	11																			7.7	
			EB07S15	15	2.4	14	0.7	27	4.1	3.9	1.6			20	20	39																			8.2	
			EB07S24	24	1.1	45	0.8	41	6.8	5.5	1.3			47	28	18																			7.8	
			EB07S30	30	2.4	31	1	79	11	14	3.1	0.1	1.8	40	47	22																			7.8	

TPH = Total Petroleum Hydrocarbons

Jack Sucilsky

From: Vik Sehdev <vsehdev@bihjv.com>
Sent: Thursday, December 06, 2012 2:52 PM
To: Jack Sucilsky
Subject: FW: Test results in the back of the yard

Cheers,



From: William Gilmartin [mailto:bgilmartin.iv@provenmanagement.com]
Sent: Thursday, December 06, 2012 2:54 PM
To: Vik Sehdev
Subject: RE: Test results in the back of the yard

Vik,

All material represented by samples 11/8/12-01, 02, 03 cannot be accepted by BSP. The level of contamination and proximity of material to this contamination represents a condition whereby BSP cannot accept the material.

Thanks,

Bill Gilmartin | ProVen Management, Inc
T 415-421-9500 | F 415-421-9600 | M 650-773-5144
712 Sansome San Francisco, CA 94111

<http://www.provenmanagement.com>

bgilmartin.iv@provenmanagement.com

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Creative Construction Solutions
Heavy Civil . Infrastructure . Transportation . Industrial

From: Vik Sehdev [mailto:vsehdev@bihjv.com]
Sent: Thursday, December 06, 2012 11:05 AM
To: William Gilmartin
Subject: Test results in the back of the yard



December 27, 2012

Vik Sehdev
Barnard/Impregilo/Healy

Re: Central Subway Soil Disposal.

Dear Vik,

As per our phone conversation in November we will not be able to accept any soil from the area represented by samples 11/8/12 – 01, 02 and 03 at our bay area landfills. Based on the sample results and the proximity of the two types of wastes we will do not think that we can be guaranteed of only receiving the non hazardous soils. The excavation area is too small to be able to separate the non-hazardous soil from the California hazardous soil.

Thank you for the opportunity to assist you on this project. I encourage you to contact me at (925) 202-3344, if I can offer additional assistance or further clarification.

Sincerely,

A handwritten signature in blue ink that reads "Ted De Wilde".

Ted De Wilde
Account Manager



Got Dirt?

Got Dirt?

To: Barnard Impregilo Healy
 Attention: Vik Sehdev
 From: Preet Johal
 Email: preet@economytrucking.net
 Cell: 510-689-7875
 Website: Economytrucking.net

P.O. BOX 525, UNION CITY, CA 94548
 Phone. 510 733-9100 / Fax. 510 733-9600
 CA# 0293659

DATE: October 9, 2012

1 pg. total (Hourly Rates included below)

SBE, DBE, MBE, WBE, UDBE

EXPIRATION DATE:30 DAYS

PROJECT & LOCATION:

Central Subway Tunneling Project, San Francisco

The actual number of loads, tons, and/or hours will determine the final dollar amount.

QTY	MATERIAL	DESCRIPTION	TRUCK	PRICE	UNIT
TBD	Clean Dirt	Haul and Dispose -Toll included		\$500.00	Load
All other trucking will be charged hourly					
TYPE OF TRUCK		WEEKDAY	SATURDAY	SUNDAY	
SUPER DUMPS		\$95.00	\$97.00	\$102.00	
TRANSFERS		\$88.00	\$93.00	\$98.00	
3 AXLE TEN-WHEELER		\$80.00	\$85.00	\$90.00	
HIGHSIDES		\$95.00	\$100.00	\$105.00	
5 AXLE SEMI BOTTOMS & DOUBLES		\$88.00	\$93.00	\$98.00	
5 AXLE SEMI END DUMPS		\$88.00	\$93.00	\$98.00	
FLATBEDS		\$95.00	\$100.00	\$105.00	

Terms and Conditions:

Complete Analytical and Geotechnical reports must be provided by contractor and approved by landfill prior to soil removal. All soil testing must meet the landfill's requirements. All delivered materials are subject to the contractor's approval and must be approved prior to hauling. Tonnage and load prices are only valid with standby times (\$1.50 per minute beyond 10 minutes per truck at both loading and receiving sites) paid in full; otherwise, hourly rates will be charged for all trucks. Tonnage and load rates applies to a minimum of eight hour work day. Night Work will be the same charge as weekdays. Six hour minimum per day per truck applies to all jobs. Bridge Tolls will be billed separate for all hourly trucking, if applicable. All prices are subject to a 5% increase each year, except dirt haul prices and dumpsite, which are subject to change anytime due to weather and/or any other factor beyond our control. Prevailing wage/Certified Payroll jobs will be billed only hourly and twenty percent extra, over and above the prices listed in this quote. Material prices and dump fees exclude fuel surcharges and environmental fees imposed by quarries and landfills. All extra fees imposed by quarries and or landfills will be billed separately if applicable. An extra cleaning time of one hour will be charged per truck and per shift for Rubber, Wet CTB and OGAC, if necessary. Fuel Surcharges: The above rates are based on the current fuel prices (see above date.) These rates will increase by 3.5% for every 0.50 increase in fuel. Accounts overdue beyond 30 days of billing will be charged at an interest rate of 24% per annum. Customer is also liable for an additional 25% of unpaid balance plus accidental collection costs, including attorney fees. Customer agrees not to hire any other company to haul dirt to the same dumpsite that is provided or proposed by Economy Trucking Services, Inc. or otherwise we have the right to collect any/all profits entitled to trucking & dirt hauling. This quote is good for 30 days from the above bid date.

Please sign and fax back to secure pricing.

To accept this quotation, sign: _____

Print Name/Company/Title: _____

SFMTA Contract No. 1252

Contractor: Barnard Impregilo Healy JV (BIH)

EVALUATION OF MERIT

COR 071

Recommendation: Accept justification of Merit for COR 071, Launch Box Ramp Excavation Wood Pile Obstruction. There is no time extension requested or recommended for this work.

Facts: On 01/24/13, the Contractor encountered wood piles in the footprint of the Launch Box access ramp (Drawing No. CS 1252 – 003). The wood piles were not shown on contract drawing CS-114 Rev. 1 or within the Geotechnical Baseline Report (GBR). The Contractor had to excavate around the wood piles. Once the excavation at the ramp is at grade, the Contractor will cut and dispose of the piles.

Justification: Drawing CS-114, Rev. 1 and the GBR do not indicate the presence of the wood piles within the excavation limits. BIH is installing a ramp where the drawings indicate a shaft; nevertheless, the wood piles are within the original excavation limits.

SFMTA inspectors have observed that excavation around the wood piles has caused additional work. There will also be additional work and disposal fees associated with the removal of the piles. RE has evaluated the conditions outlined in Article 3.04 and found that: conditions differ materially and conditions caused the scope of work to increase.

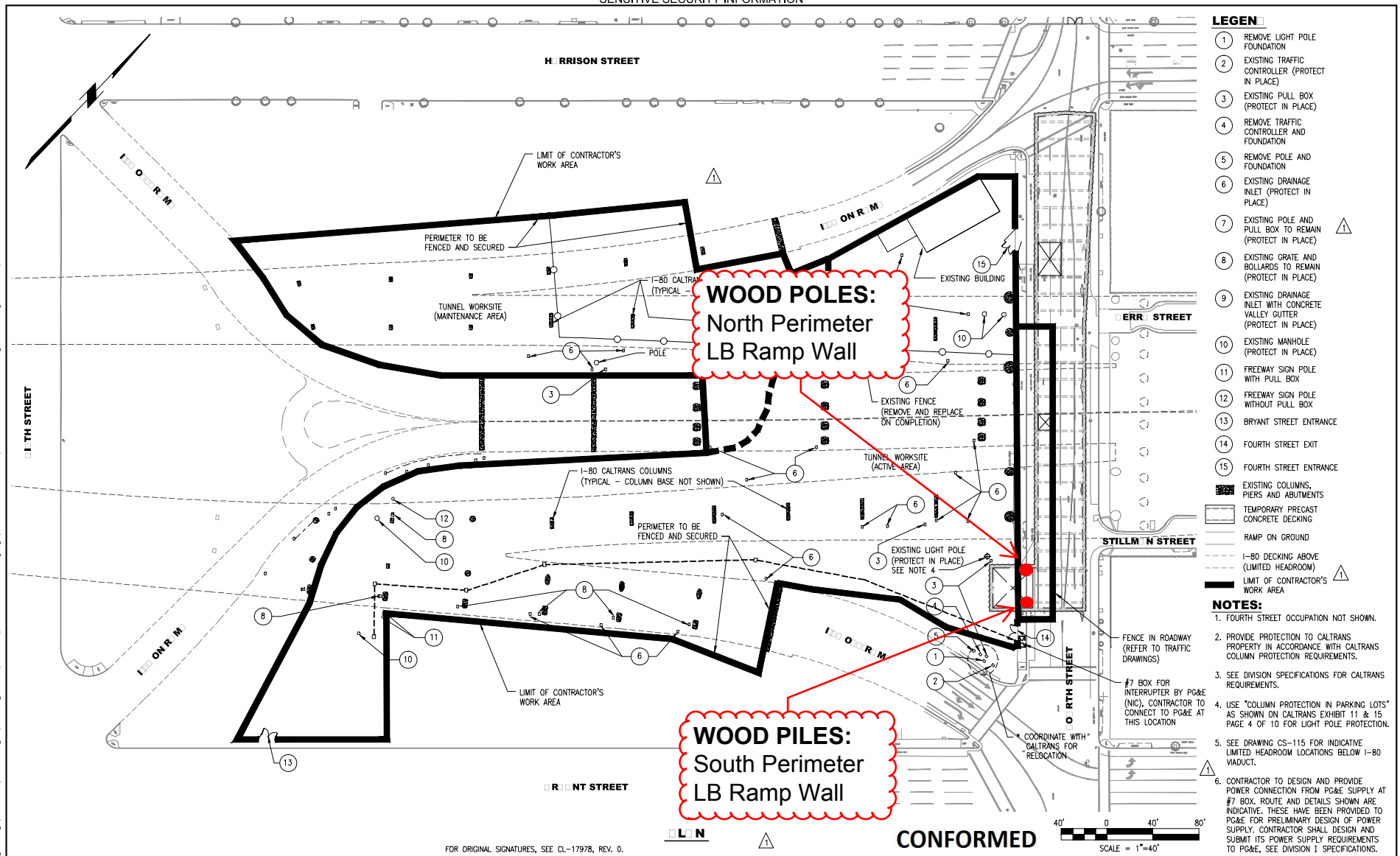
Change Type: (2) Unforeseen Condition

By: _____ Date _____
Sarah Wilson
Resident Engineer

_____ Date _____
Configuration Management Board
Approval

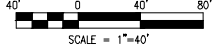
COR NO. 071: LB - Ramp Excavation Wood Piles Obstruction

SENSITIVE SECURITY INFORMATION



- LEGEND**
- 1 REMOVE LIGHT POLE FOUNDATION
 - 2 EXISTING TRAFFIC CONTROLLER (PROTECT IN PLACE)
 - 3 EXISTING PULL BOX (PROTECT IN PLACE)
 - 4 REMOVE TRAFFIC CONTROLLER AND FOUNDATION
 - 5 REMOVE POLE AND FOUNDATION
 - 6 EXISTING DRAINAGE INLET (PROTECT IN PLACE)
 - 7 EXISTING POLE AND PULL BOX TO REMAIN (PROTECT IN PLACE)
 - 8 EXISTING GRATE AND BOLLARDS TO REMAIN (PROTECT IN PLACE)
 - 9 EXISTING DRAINAGE INLET WITH CONCRETE VALLEY GUTTER (PROTECT IN PLACE)
 - 10 EXISTING MANHOLE (PROTECT IN PLACE)
 - 11 FREEWAY SIGN POLE WITH PULL BOX
 - 12 FREEWAY SIGN POLE WITHOUT PULL BOX
 - 13 BRYANT STREET ENTRANCE
 - 14 FOURTH STREET EXIT
 - 15 FOURTH STREET ENTRANCE
- EXISTING COLUMNS, PIERS AND ABUTMENTS
 TEMPORARY PRECAST CONCRETE DECKING
 RAMP ON GROUND
 I-80 DECKING ABOVE (LIMITED HEADROOM)
- NOTES:**
1. FOURTH STREET OCCUPATION NOT SHOWN.
 2. PROVIDE PROTECTION TO CALTRANS PROPERTY IN ACCORDANCE WITH CALTRANS COLUMN PROTECTION REQUIREMENTS.
 3. SEE DIVISION SPECIFICATIONS FOR CALTRANS REQUIREMENTS.
 4. USE "COLUMN PROTECTION IN PARKING LOTS" AS SHOWN ON CALTRANS EXHIBIT 11 & 15 PAGE 4 OF 10 FOR LIGHT POLE PROTECTION.
 5. SEE DRAWING CS-115 FOR INDICATIVE LIMITED HEADROOM LOCATIONS BELOW I-80 VIADUCT.
 6. CONTRACTOR TO DESIGN AND PROVIDE POWER CONNECTION FROM PG&E SUPPLY AT #7 BOX. ROUTE AND DETAILS SHOWN ARE INDICATIVE. THESE HAVE BEEN PROVIDED TO PG&E FOR PRELIMINARY DESIGN OF POWER SUPPLY. CONTRACTOR SHALL DESIGN AND SUBMIT ITS POWER SUPPLY REQUIREMENTS TO PG&E, SEE DIVISION 1 SPECIFICATIONS.

CONFORMED



DATE	DESCRIPTION	REV.	BY	CHECKED	APPROVED
05/13/2011	ISSUED FOR ADDENDUM 6	1	MR	MEF	RE
01/21/2011	ISSUED FOR BID	0			

FOR ORIGINAL SIGNATURES, SEE CL-17978, REV. 0.

PB TELAMON
PB
 TRIMERIC S INC

DESIGNED BY: L. ARISTEY
 DRAWN BY: M. WANSINGAN
 CHECKED BY: M. HUBSON
 REVIEWED BY: K. JOHNSON
 PREPARED BY: M. FOWLER
 APPROVED BY: R. EDWARDS
 DATE: 01/21/2011

REV. 0
 SEALED BY
 M. FOWLER

CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED:
 CARTER R. ROHAN
 EXECUTIVE DIRECTOR/CEO

THIRD STREET LIGHT RAIL PROGRAM
 PHASE 2 - CENTRAL SUBWAY TUNNELS

CONSTRUCTION STAGING
 TBM LAUNCH BOX
 TUNNEL WORKSITE

CONTRACT NO. 1252
 CIVIL CONTROL NO. CL-17978
 DRAWING NO. CS-114
 SHEET NO. 1

WARNING: THIS RECORD CONTAINS SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED UNDER 49 CFR PARTS 15 AND 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSON WITHOUT A "NEED TO KNOW", AS DEFINED IN 49 CFR PARTS 15 AND 1520, EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OF THE TRANSPORTATION SECURITY ADMINISTRATION OR THE SECRETARY OF TRANSPORTATION. UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION.

Drawing No.
 CS 1252 - 003
 COR 071



WOOD PILES:
NORTH PERIMETER
WALL LAUNCH BOX
RAMP

WOOD PILES:
SOUTH PERIMETER
WALL OF LAUNCH
BOX RAMP





LB63

WOOD PILES:
SOUTH PERIMETER WALL
OF LAUNCH BOX RAMP

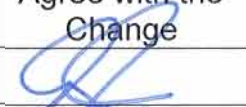


GENERAL	
Proposed Change Sponsor: <u>S. Wilson</u>	Received by CMB: <u>01/30/2013</u> (Date)
Affected Disciplines: <u>Structural</u>	
Impacts of Change <u>BART Annex Wall</u>	
Proposed Contract Change (PCC 07) Amount Not To Exceed \$15,380.00	

Contract(s) Directly Affected by this Proposed Change:

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

CONFIGURATION MANAGEMENT BOARD APPROVALS

Signatures

	Agree with the Change	Disagree with the Change	Date
Senior Program Manager:			<u>1-30-13</u>
Deputy Program Manager:			<u>1/30/2013</u>
PM Project Services:			
PM Project Development/Delivery:			<u>1/30/2013</u>
SFMTA O & M Manager:			
SFMTA Safety and Security			
SFCTA PMO			

Comments

PCC 007

No.	Activity Name	Days (C)	Days (EE)	Contractor (C)	Engineer's Estimate (EE)	Delta (EE-C)	Comparison*	Negotiation Position*
Labor	1 Construct BART Annex Wall	5	4	\$ 11,809.44	\$ 3,995.55	\$ (7,813.89)	The Engineer's Estimate used 1 Prevailing Wage Laborer and 1 Prevailing Wage Carpenter. The contractor used 3 substantially above prevailing wage Carpenters and 1 above prevailing wage Operator (OE only in for 8hrs vs. 40hrs for the rest of the crew. This is the same for the welding equipment. Assume the OE is the person performing welding for NTE amount). Contractor used 5 days duration due to work hour restrictions (9am - 3:30pm).	FICA SS 6.2% - FICA Medicare 1.45% - FUTA 0% - SUTA 0% - SF Payroll 1.5% - WC 12% No adjustment for labor burdens as the WC 12% is much higher than BIH's requested rate. If burdens were adjusted to current program standards of 1.45 - .12 - 1.2 - 1.5 - 4.03 respectively then a reduction of \$178.96 to the EE would be in order.
	Equipment	1 Construct BART Annex Wall	5	4	\$ 1,989.36	\$ -	\$ (1,989.36)	The contractor included a pickup truck at a cost of \$1,549.12. The Contractor also included a welder and generator at a cost of \$777.09. The welder and generator are included in the Engineer's Estimate Subcontractor cost.
							Contractor's Estimate sales tax fluctuates from 8.67% - 9.5%. The Engineer's Estimate sales tax is 8.5%. Sales tax changed 01/01/13 to 8.75%. The protection of escalators material cost is included in the contractors estimate at \$576.19. The Contractors unit pricing clearly uses plug numbers that are high.	DOM corrected the QTO to +- 35' therefor the Engineer's Estimate quantities are conservative.
	Material			\$ 4,265.03	\$ 2,188.54	\$ (2,076.49)		
	Markup LM&E - 15%			\$ 2,709.57	\$ 927.61	\$ (1,781.96)		
	2nd Tier Subs			\$ 700.00	\$ 250.00	\$ (450.00)	The Engineer's Estimate assumes that welding would be subcontractor work vs. the Contractors Estimate assumption that the pre-construction survey would be completed by a subcontractor. Assume Sub. B/I included in amount shown on "2nd Tier Subs" line	Discussed the pre-construction survey with the DOM and no survey crew is necessary to complete the work.
	Markup - 5%			\$ 35.00	\$ 12.50	\$ (22.50)		
	Bond/Insurance 1.68%			\$ 361.34	\$ 123.89	\$ (237.45)		
	Total			\$ 21,869.75	\$ 7,498.10	\$ (14,371.65)		Half of labor difference is effected by not only burdens but durations as well (4 days vs. 5 days) Half of the marked up difference shown above is \$4,568.47. If this amount gets included in the NTE amount then the \$876.01, \$648.87, \$2743.48 labor hours shown below should be removed.
RE Recommended NTE Amount:				\$ 15,380.00		7498.10 (EE) + 4,597.37 (Add. 1 day for Construction due to 6 hour work restriction + Add. 1 ea. Carpenter) + 576.19 (Escalator Protection Materials) + 1,549.12 (Pickup Truck) + 648.87 (OE/Welder 8hrs) + 777.09 (Generator 40hrs / Welding Equip 8hrs) - 266.91 (EE Sub Welder)		

*All amounts referenced in the "Comparison" or "Negotiation Position" columns are fully marked up for easy addition or subtraction to the bottom line

San Francisco MTA

821 Howard St.
2nd Floor
San Francisco, CA 94103

Phone: 415-701-5276
Fax: 415-701-5222

TRANSMITTAL
No. 00067

PROJECT: 1252 TBM, Launch Box and Tunnel

DATE: 12/21/2012

TO: Barnard Impregilo Healy J.V.
420 4th Street
San Francisco, CA 94107

REF: PCC #07 - BART Annex Wall

ATTN: Ben Campbell

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

CC:

Signed: 

Sarah Wilson

PROPOSED CONTRACT CHANGE

Contract No. 1252 Tunnels
 PCC No. 1252-07
 PCC Title BART Annex Wall

Date 12/20/2012

Description of PCC:

Summary of Changes:

BIH shall address the requirements of the BART Temporary Wall Permit, including but not limited to:

- Providing pre-construction surveys of the area;
- Constructing a 2-hour fire rated temporary wall consisting of 5/8" sheet rock (both sides) and covered with 1/2" fire treated plywood on the SFMTA side, fire taped finished and painted white on the Powell Street Station side and fire taped on the SFMTA side (as detailed in the BART permit application and in Exhibit A) to provide fire separation between Powell Street Station and the future UMS Station and to prevent the public from entering the work site. A six-inch rubber/resilient base to trim shall be installed where the wall meets the floor;
- Work on the Powell Street Station side must be done during the hours of 9am-3:30pm. Use the Stockton/Ellis/Market Street entrance for any necessary access to the Powell Street BART Station unless otherwise directed by BART. BART must be given a minimum of 3-week advance notice on the Temp Wall installation date;
- Physically sealing the annex area by the end of the day of taking possession of the UMS Entry Area to prevent cross-entry from either side of the wall, no use of UMS Entry Area on the second day after taking possession of the UMS Entry Area, and completing the Wall by the end of the seventh day after taking possession of the UMS Entry Area (e.g., if SFMTA takes possession of the UMS Entry Area on Day 1, Contractor will physically seal the UMS Entry Area on Day 1, complete installation of the Wall sheet rock and plywood on Day 2, stay out of the UMS Entry Area on Day 3, and complete all Wall work by end of Day 7;
- Covering and protecting the existing escalators with plywood and heavy duty plastic as directed by the Engineer;
- Installing signage (as detailed in the Bart permit, Exhibit B). SFMTA will provide the signs; and
- Work shall comply with the requirements set forth in Permit No. M-08.1-014 – Draft Permit to Enter Work, e.g., coordination with Titan advertisement company, USA clearance if necessary.

Supplementary Conditions:

- No utility service is provided for any construction activity;
- SFMTA has forwarded to BART the certificates of insurance for Contract 1252;
- SFMTA will secure permit for the installation of the wall.

Spec Ref.	CN 1252 Tunnels CN 1252 SP-7 Contractor Provided Insurance
Drawing Nos.	Exhibit A - Temporary Wall Installation Drawings

Exhibit B - Signage Details	
Attachments	Exhibit C - BART General Terms and Conditions Relating to Utility Permits Exhibit D - Permit No. M-08.1-014 - Draft Permit to Enter Work
The Contractor's proposal in price and time is required on the following proposed contract change to the subject contract in accordance with the General Provisions Section 88.B within 14 days after receipt of a PCC.	

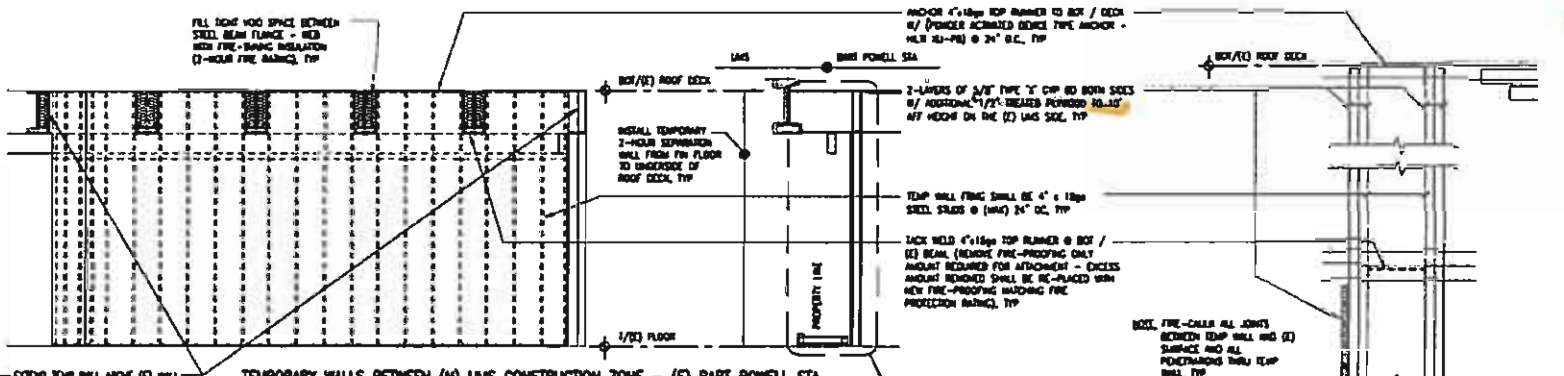
Recommended by: 
Sarah Wilson, Resident Engineer
SFMTA Representative

Date 12/20/12

Concur in Principle: 
Mark Benson, Construction Manager
SFMTA Representative

Date 12/20/12

EXHIBIT "A"



TEMPORARY WALLS BETWEEN (H) UMS CONSTRUCTION ZONE - (E) BART POWELL STA

2 ELEVATION SCALE: NO SCALE

3 SECTION SCALE: NO SCALE

TEMPORARY WALL ADJOINING (E) EAST WALL

4 WALL DETAIL SCALE: NO SCALE



DASHED LINE DENOTE TEMPORARY WALL WHERE ADJOINING (E) BART CONCOURSE WALL (PROTECT WALL FINISH IN PLACE ON BART SIDE), TYP

VIEW TOWARD WHERE ADJOINING (E) WEST WALL

- (E) CHAIR TIE (1/2" BELOW (E) STEEL BEAMS) TO REINFORC FRAM TEMPORARY WALL AROUND CHAIR TIE (PROTECT IN PLACE), TYP
- (E) STOP LIGHT FIXTURES TO REMAIN (ON BART SIDE), TYP
- (E) ROOF STEEL CHAIR & SUPPORT BEAMS TO REMAIN, TYP

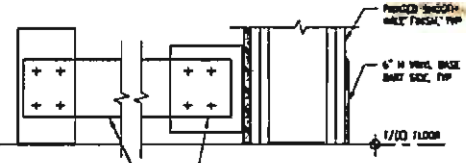


VIEW TOWARD WHERE ADJOINING (E) EAST WALL

- INSTALL TEMPORARY 2-HOUR SEPARATION WALL BETWEEN (E) BART CONCOURSE AND UMS CONSTRUCTION ZONE / TEMP WALL SHALL BE CONSTRUCTED PER IA 26.3 (SECTION 26.3) HOLD WALL 2'-0" AWAY FROM (E) STOP LIGHT FIXTURES (IF EXIST LOCATIONS), TYP

TEMPORARY WALL ADJOINING (E) EAST WALL

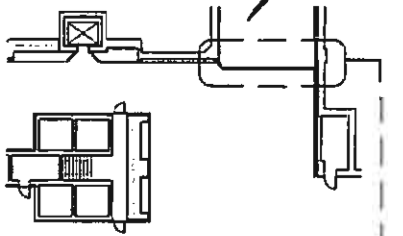
6 WALL DETAIL SCALE: NO SCALE



5 WALL DETAIL SCALE: NO SCALE

- DASHED LINE DENOTE TEMPORARY WALL WHERE ADJOINING (E) BART CONCOURSE WALL & (E) ROOF DECK (PROTECT WALL FINISH IN PLACE ON BART SIDE), TYP

- ATTACHED TO (E) WALL w/ CONSTRUCTION ADHESIVE, TYP
- EXTEND TEMP WALL ABOVE (E) WALL FINISH TO FACE OF (E) CONCRETE WALL ATTACH w/ CONSTRUCTION ADHESIVE



TEMPORARY WALLS BETWEEN (H) UMS CONSTRUCTION ZONE - (E) BART POWELL STA

1 ENLARGED PLAN SCALE: NO SCALE

NOTE: CONSTRUCTION ADHESIVE WILL BE REMOVED WITHOUT DAMAGE TO THE T&E WALL

RECEIVED

NOV - 1 2012

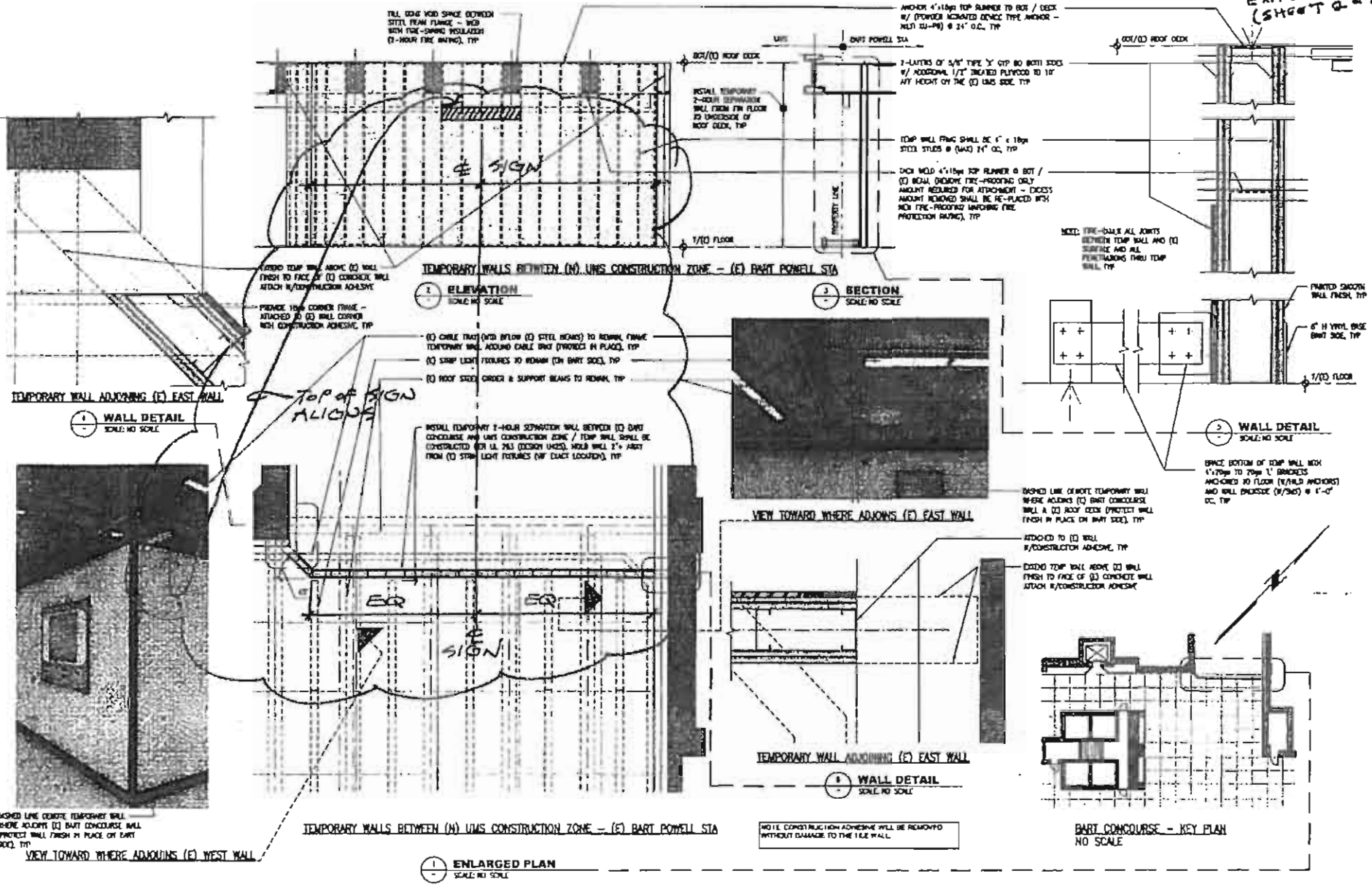
RIGHT OF WAY

EXHIBIT "B"
(SHEET 1 of 2)



PowellTemp001 74" x 14"

EXHIBIT "B"
(SHEET 2 of 2)



FILL GAPS VOID SPACE BETWEEN
STEEL FRAM FLANGES - WED
WITH FIRE-RATED INSULATION
(1-HOUR FIRE RATING), TYP

ANCHOR 4" DIA TOP RUNNER TO BOI / DECK
w/ (FOUR) ANCHORED DECK TYPE ANCHOR -
MUST BE 24" O.C. TYP

2-LAYERS OF 5/8" TYPE 'X' GIP ON BOTH SIDES
w/ ADDITIONAL 1/2" TREATED PLYWOOD TO 10"
HTY HEIGHT ON THE (E) WMS SIDE, TYP

TEMP WALL FRMG SHALL BE 6" x 18"
STEEL STUDS @ (24") 14" O.C. TYP

DOOR WELD 4" DIA TOP RUNNER @ BOI /
(E) WMS (DESIGNED FOR FIRE-PROOFING ONLY - EXCESS
AMOUNT REQUIRED FOR ATTACHMENT - EXCESS
AMOUNT REMOVED SHALL BE RE-PLACED WITH
NON-FIRE-PROOFING UNLESS FIRE
PROTECTION RATING), TYP

NOTE: FIRE-RATE ALL JOINTS
BETWEEN TEMP WALL AND (E)
SURFACE AND ALL
PENETRATIONS THRU TEMP
WALL, TYP

FINISH TEMP WALL ABOVE (E) WALL
FINISH TO FACE OF (E) CONCRETE WALL
w/ CONSTRUCTION ADHESIVE

PROVIDE 1/4" CORNER FRAM -
ATTACHED TO (E) WALL CORNER
w/ CONSTRUCTION ADHESIVE, TYP

TEMPORARY WALLS BETWEEN (N) UMS CONSTRUCTION ZONE - (E) BART POWELL STA

1 ELEVATION
SCALE: NO SCALE

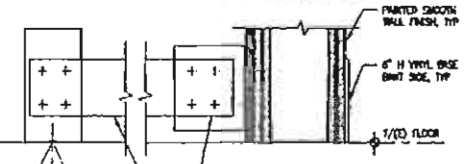
2 SECTION
SCALE: NO SCALE

- (E) CHAIN TRAY (AND BELOW (E) STEEL HOLES) TO REINFORC FRAM
TEMPORARY WALL - ACCORDING CHAIN TRAY (PROVIDE IN PLACE), TYP
- (E) STAMP LIGHT FIXTURES TO REINFORC (ON BART SIDE), TYP
- (E) ROOF SIDE ORDER & SUPPORT BEAMS TO REINFORC, TYP

INSTALL TEMPORARY 2-HOUR SEPARATION WALL BETWEEN (E) BART
CONCOURSE AND UMS CONSTRUCTION ZONE / TEMP WALL SHALL BE
CONSTRUCTED PER U.S. 263 (DESIGN USES). WALL SHALL BE 2" AWAY
FROM (E) STAMP LIGHT FIXTURES (W/ EXACT LOCATION), TYP



VIEW TOWARD WHERE ADJOINS (E) EAST WALL



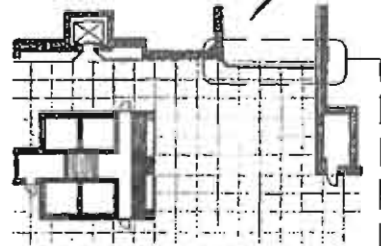
3 WALL DETAIL
SCALE: NO SCALE

SPACE BOTTOM OF TEMP WALL WITH
1" TO 2" TO 2" U-BRACKETS
ANCHORED TO FLOOR (w/ 1/2" DIA ANCHORS)
AND WALL FINISH (w/ 3/4" DIA) @ 1'-0"
O.C. TYP

FINISH LINE OF TEMPORARY WALL
WHERE ADJOINS (E) BART CONCOURSE
WALL & (E) ROOF DECK FINISH WALL
FINISH IN PLACE ON BART SIDE, TYP

ATTACHED TO (E) WALL
w/ CONSTRUCTION ADHESIVE, TYP

EXISTING TEMP WALL ABOVE (E) WALL
FINISH TO FACE OF (E) CONCRETE WALL
ATTACH w/ CONSTRUCTION ADHESIVE



BART CONCOURSE - KEY PLAN
NO SCALE

TEMPORARY WALL ADJOINING (E) EAST WALL
1 WALL DETAIL
SCALE: NO SCALE



FINISH LINE OF TEMPORARY WALL
WHERE ADJOINS (E) BART CONCOURSE WALL
FINISH TO FACE OF (E) CONCRETE WALL
ATTACH w/ CONSTRUCTION ADHESIVE, TYP

VIEW TOWARD WHERE ADJOINS (E) WEST WALL

TEMPORARY WALLS BETWEEN (N) UMS CONSTRUCTION ZONE - (E) BART POWELL STA

1 ENLARGED PLAN
SCALE: NO SCALE

TEMPORARY WALL ADJOINING (E) EAST WALL

3 WALL DETAIL
SCALE: NO SCALE

NOTE: CONSTRUCTION ADHESIVE SHALL BE REMOVED
WITHOUT DAMAGE TO THE TILE WALL



SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

GENERAL TERMS AND CONDITIONS RELATING TO UTILITY PERMITS

EXHIBIT "C"

All Utility Permits issued by the San Francisco Bay Area Rapid Transit District to privately and publicly owned utilities relating to poles, wires, cables and other overhead structures, pipes, conduits, manholes and other miscellaneous underground facilities, railroad crossings, storm drains, flood control and minor work are subject to the following General Terms and Conditions contained herein as well as the specific conditions set forth on the face of the Permit.

1. DEFINITION:

Each Utility Permit (hereinafter referred to as "Permit") is issued by the San Francisco Bay Area Rapid Transit District (hereinafter referred to as BART) by the Manager of Real Estate Services.

Applicant (hereinafter referred to as "Permittee") understands and agrees that except as otherwise provided, all Permits issued by BART are subject to the terms and conditions contained herein.

2. REVOCABILITY AND MODIFICATION:

Any Permits issued hereunder are revocable upon thirty (30) days written notice by BART, and the terms and conditions thereof shall be subject to modification by BART at any time. Any Permit is revocable immediately in the event of any use other than that authorized by the Permit, or upon failure of the Permittee to conform to any of the terms and conditions of the Permit.

3. NEW WORK PERFORMED ON EXISTING PERMIT:

No new work can be initiated by a Permittee based upon a prior Permit unless that Permit specifically sets forth the nature and method of such future work at the time of the original approval and if the prior Permit has not expired.

If occupation of BART right-of-way is under easement or previous agreement with BART, new installations and work must be applied for to provide BART with notice and record of new work, and for inspection and approval by BART relating to construction and safety procedures. All prior rights shall be fully protected in such cases.

4. ACCEPTANCE OF PROVISIONS:

It is understood and agreed by Permittee that doing any work under a Permit shall constitute an acceptance of the terms and conditions contained herein except as otherwise specifically provided in the Permit.

5. NO PRECEDENT ESTABLISHED:

It is understood and agreed by Permittee that approval of a particular action under a Right of Entry or Permit shall not establish a precedent for similar future requests by Permittee.

6. NOTICE PRIOR TO STARTING WORK:

Before starting work on which full inspection is required in the Permit, the Permittee shall notify BART's Special Services Section in writing fourteen days in advance of the day work is to begin. Five days notice shall be given on Permits where partial inspection is specified.

7. PERMIT AT SITE OF WORK:

The Permit or a copy thereof shall be available at the site of the work and must be shown to any representative of BART on demand.

8. PERMITS FROM OTHER AGENCIES:

The party or parties to whom a Permit is issued shall, whenever the same is required by law, secure the written order or consent to any work under a Permit from the Public Utilities Commission of the State of California or any other public agency having jurisdiction and any Permit shall not be valid until such order or consent is obtained.

9. PROTECTION OF TRAFFIC WHEN APPLICABLE:

Adequate provisions shall be made for the protection of the traveling public when construction affects cross streets along BART right-of-way. Warning signs, lights, safety devices and other measures required for the public safety shall conform to requirements of the Vehicle Code.

10. RAIL CLEARANCE AT OR NEAR GRADE:

No construction material shall be stored, nor equipment parked within 10 feet, measured at right angles, from the outer edge of the BART aerial structure or BART right-of-way fence, whichever is greater. Construction equipment operating adjacent to BART tracks or facilities shall be so situated and restrained so as not to fall in a manner that would potentially damage BART facilities or to interfere with BART's operating envelope. Any activity within 10 feet, measured at right angles, of BART's aerial structure or rail shall be conducted during non-revenue service hours and shall be subject to Track Allocation clearance.

11. LIMIT OF EXCAVATION AT OR NEAR GRADE:

No excavation is to be made closer than 10 feet, measured at right angles, from the edge of rail except as specified in the Permit. Depth of excavation shall be subject to inspection and approval by BART's Special Services Section.

12. STANDARDS OF CONSTRUCTION:

All work performed within BART right-of-way shall conform to Civil and Structural Design Criteria, latest revision, by this reference made a part hereof.

13. APPROVAL BY BART:

All work shall be subject to inspection and approval by BART. The type of inspection will be specified in each Permit.

14. CLEAN UP OF RIGHT-OF-WAY:

Upon completion of the work, the right-of-way shall be left in the same condition as existed before work started.

15. MAINTENANCE:

Permittee agrees, by acceptance of a Permit, to exercise reasonable care to properly maintain any installation placed in BART right-of-way and to exercise reasonable care in preventing damage to any portion of right-of-way or to BART's facilities as a result of work done under a Permit.

16. RESTORATION:

Within 30 days of the expiration or earlier termination of a Permit, Permittee shall, at its sole expense, restore to its former condition any portion of the right-of-way or of any BART facility which has been disturbed by Permittee, except as provided otherwise in the Permit. Restoration shall include, but not be limited to, removal of improvements, equipment, materials, debris, and the like, and repair of any damage. If Permittee fails to restore BART property as required herein, BART may perform such restoration at Permittee's sole expense.

17. CARE OF DRAINAGE:

If the work contemplated in any Permit interferes with established drainage, provision shall be made by Permittee to re-establish equal drainage conditions as may be directed by BART, at Permittee's sole expense.

18. SUBMISSION OF PLANS:

For installation of all underground facilities and surface work, Permittee shall submit for approval a plan showing location and details with its application. Three sets of as-built plans shall be filed with BART upon completion and approval of work. Any substantial change from plans submitted with the application must be approved by BART prior to commencement of work.

19. EXPENSE OF INSPECTION, PREPARATION, AND ADMINISTRATION:

On installations made under request of Permittee which require the presence of any employee of BART as inspector, the cost of such inspection during the work shall be paid by Permittee upon presentation of bills therefor. In addition, Permittee agrees to promptly pay BART for costs involved in the preparation, administration and processing of the Permit and its provisions upon presentation of bills therefor per the fee schedule in Resolution No. 4515, adopted by the District's Board of Directors.

20. LIABILITY FOR DAMAGES:

Permittee agrees to assume responsibility and liability for all damage, loss or injury of any kind or nature whatever to persons or property, caused by or resulting from or in connection with work done by Permittee under a Permit or which may arise out of failure on Permittee's part to perform their obligations under any Permit. In the event any claim of such liability is made against BART, or any department, officer, or employee thereof, Permittee shall defend, indemnify and hold them, and each of them harmless from such claim, and pay and satisfy any resulting judgments. At its sole discretion, BART may require that Permittee obtain a bond and/or insurance in connection with the Permit.

21. FUTURE MOVING OF INSTALLATIONS:

It is understood by Permittee that whenever BART construction, re-construction or maintenance work on BART right-of-way may be required, and upon request by BART, the Permittee's installation shall be immediately moved by and at the sole expense of Permittee except as otherwise provided for by a specific Permit provision.

22. ROUTINE MAINTENANCE OF PERMITTEE'S FACILITIES:

Permittee may perform routine work maintenance on Permittee's facilities in accordance with the Terms and Conditions set forth in the Permit. It will be necessary to provide fourteen days' prior written notice, unless otherwise stated, to BART's Construction Liaison prior to commencing any work within the property boundaries of BART. In emergencies, the Permittee shall notify BART's Construction Liaison by telephone and then follow up by confirming letter relating to the emergency and the disposition of the emergency.

23. PIPES, CONDUITS AND MISCELLANEOUS FACILITIES:

BART's Civil and Structural Design Criteria, latest revision, sets forth specification for installation and maintenance of all underground facilities within BART right-of-way. In addition to BART criteria, all installation and maintenance procedures by Permittee shall be in accordance with the applicable orders of the Public Utilities Commission of the State of California. When abandonment of facilities is contemplated, Permittee shall notify BART.

24. POLES, WIRES, CABLES AND OVERHEAD STRUCTURES:

Poles shall be located as specifically directed in the Permit. In addition to BART's Civil Structural Design Criteria, latest revision, all clearances and types of construction shall be in accordance with the applicable orders of the

Public Utilities Commission of the State of California. Whenever it is necessary to secure permission from abutting property owners, such authority must be secured by Permittee prior to commencing work. Where removal of old poles, guys and stubs is necessary, the entire length of the abandoned pole, guy or stub shall be removed from the ground and the hole backfilled and thoroughly tamped.

25. CLEARANCE OF TREES:

All new pole line construction must allow sufficient vertical clearance for trees 40 feet in height. At locations where growing trees are in place, or Permittee's facilities are already in place, normal construction standards may be followed at the option of Permittee with the ultimate provision to clear a 40-foot tree. Protected cable, tree wire, or plastic tree wire guards may be used on telephone lines through trees provided neither the tree nor its appearance will be damaged. No guy wires are to be attached to trees or BART structures.

26. TRIMMING OF TREES:

Trimming of trees will be permitted only where specifically stated in a Permit. Except when specifically authorized in the Permit, removal of trees will generally be prohibited since all trees within BART right-of-way have been placed as landscaping. Permittee shall be required to conduct tree trimming at no cost to BART. In general, only light trimming of branches two inches or less in diameter will be permitted. The shapeliness of the trees must be preserved. If the permit requires inspection by BART during progress of the work, the cost of inspection shall be borne by the Permittee.

27. SERVICE CONNECTIONS:

These terms and conditions do not authorize installation of utility service connections within BART right-of-way regardless of location of Permittee's facilities. All such service connections or excavations to abandon services must be covered by individual Permits.

GT&CUTIL.PER.doc (Exhibit C).doc

**BERNARD IMPREGLIO
HEALY JOINT VENTURE
420 4th Street
San Francisco, CA 94107**

PERMIT NO. M-08.1-014-SF

PERMIT TO ENTER (WORK)

Subject to the following covenants, terms, conditions and restrictions, the San Francisco Bay Area Rapid Transit District (hereinafter "District" or "BART") hereby grants permission to Bernard Impreglio Healy Joint Venture (hereinafter "Permittee") (collectively, the "Parties") to construct, maintain and use an interior grade, 2-hour fire rated temporary wall, to be located approximately 18-inches within BART property from the existing Powell Street Station wall and will extend to the underside of the roof deck. Said wall shall close off Entrance "R" to the Powell Street BART Station. Permittee shall use and maintain a temporary work area which shall extend five (5) feet from the temporary wall. (hereinafter the "Work") upon that portion of BART property at the Powell Street BART Station in the City and County of San Francisco, (hereinafter "Premises"), shown on Exhibit "A" (SFMTA drawing received by BART on November 1, 2012) attached hereto and incorporated herein by this reference.

1. Subject to Section 17 below, the term of this Permit shall commence on the date the City and County of San Francisco takes title to BART Parcel No. O-S335 (County Assessor's Parcel No. 0327-024) (the "Commencement Date"), and end five (5) years from the Commencement Date (Temporary Work Area to end 7 calendar days following Commencement Date) provided, however, that at any time during the term, the Permit may be terminated by either party upon thirty (90) days prior written notice to the other party. Said notice shall be sent certified mail, return receipt requested, to:

**Bernard Impreglio Healy Joint Venture
420 4th Street
San Francisco, CA 94107
Attn: Ben Campbell**

or

Real Estate and Property Development Department
San Francisco Bay Area Rapid Transit District
300 Lakeside Drive, 22nd Floor
Oakland, California 94612
Attention: Jeffrey P. Ordway, Manager

The notice period shall begin to run upon receipt of said notice.

2. The fee for this Permit shall be calculated pursuant to the attached Fee Schedule in effect when staff time is expended, pursuant to the policy adopted by the BART Board of Directors in Resolution No. 4989. An application fee pursuant to such Fee Schedule shall be paid prior to issuance of this Permit. Fees to reimburse BART for plan review and inspection will be billed to Permittee upon completion of the Work and shall be paid to BART within thirty (30) days of the invoice date. A 10% late fee will be assessed on the balance if payment is not received within said 30 days of the invoice date. The late fee will be increased to 20% on the original balance if payment is not received within 60 days of the invoice date. BART reserves all rights to pursue all appropriate remedies to collect outstanding payments and penalties that have not been paid by Permittee within 90 days of the invoice date.

3. Permittee's right to use this area shall be non-exclusive and non-transferable, except as noted in paragraph 4.l below, and shall be for the sole purpose of performing the Work. In no event shall BART's property be deemed to be a public right-of-way. Overnight parking is prohibited on BART's property.

4. Conditions of Use:

4.a This Permit is issued with the understanding that the nature of the work to be conducted within Entrance R during the term of this Permit will be limited to construction staging, storage and office space, and no heavy equipment will be used within Entrance R and no structural changes will be made to Entrance R during the term of this Permit. Should the work to be conducted within Entrance R change, prior to commencement of such work this Permit shall be amended to reflect any modifications to the design of the wall or other conditions of this Permit deemed necessary by BART.

4.b Permittee shall confirm the Commencement Date with Jeff Ordway (510-464-6114) in BART's Real Estate and Property Development Department prior to conducting any activities under this Permit. Permittee shall not conduct any work

under this Permit until BART confirms the Commencement Date to Permittee in writing.

4.c Construction and finishing of the wall shall take approximately 5 but no greater than 7 calendar days. During the installation of the wall and any associated work conducted within the Powell Street Station. Permittee's work shall not impede patron access.

4.d Permittee shall install a 2-hour fire rated temporary wall with steel studs (Max. 24" O. C.). Wall shall be constructed of 5/8" sheet rock (both sides) and covered with 1/2" fire treated plywood on the SFMTA side, fire taped finished and painted white on the Powell Street Station side and fire taped on the SFMTA side. No doors are allowed in the wall. Existing wall tiles and floor finish shall be protected against any damage.

4.e Permittee shall complete a substantial portion of the wall on the Commencement Date sufficient to prevent access to Entrance "R" by BART or MUNI Patrons.

4.f Permittee shall install a temporary directional sign as shown on Exhibit "B" attached hereto and incorporated herein by reference. Permittee shall comply with the following: (1) Material - 18 ga. Aluminum; (2) Deburr and break sharp edges; (3) .50" radius at 4 corners; (4) Green color to match Pantone 3415C. Sign to be installed at the location shown on Exhibit "B."

4.g Permittee shall install a six-inch rubber/resilient base to trim where the wall meets the floor.

4.h Permittee accepts the Premises as-is and acknowledges that there may be hazardous materials on the site, including but not limited to asbestos.

4.i Permittee shall take all necessary steps per current OSHA code to prevent any exposure to hazardous materials to Permittee's workers, BART personnel, and BART or MUNI patrons.

4.j Permittee shall maintain the wall in the as constructed condition, except that BART agrees to maintain the cosmetic condition of the wall where it faces the Powell Street Station.

4.k Permittee's wall shall provide BART/MUNI patrons protection from fire, flood, water intrusion, and undue noise at all times. Permittee shall ensure the wall has adequate lateral support at all times. At no time shall sharp metal objects be exposed on the wall.

4.l Permittee must remove the wall upon termination of this Permit. Prior to termination, this Permit may be assigned to the City of San Francisco or the San

Francisco Municipal Transportation Agency upon proper notice to BART and the term may be extended as may be mutually agreeable between BART and the subsequent Permittee. Notice shall be provided by subsequent Permittee to the Manager of the Real Estate and Property Development Department, 300 Lakeside Drive, 22nd Floor, Oakland, CA 94612, at least thirty (30) days in advance of said termination.

4.m Permittee work hours are subject to BART approval.

4.n Permittee shall use the Stockton/Ellis/Market Street entrance for any necessary access to the Powell Street BART Station unless otherwise directed by BART.

4.o Permittee shall leave the temporary work area in a clean, safe and secure condition at the end of each work shift.

4.p After the temporary wall is installed, Permittee shall center the Titan advertising diorama on the space remaining on the existing wall. Titan will re-space any static advertising frames as necessary. Permittee shall be responsible for repairing or replacing any advertising units or Titan equipment damaged during the course of Permittee's work.

4.q Demolition and removal of the temporary wall is subject to a separate amendment. On the removal of Temporary Wall, the existing BART wall surface and floor finish shall be restored to the original condition and the ceiling shall be reinstalled to match the ceiling at the time of Temporary Wall removal.

4.r Permittee shall have Underground Service Alert and an independent utility locator service mark out the excavation locations prior to digging.

4.s BART shall not be responsible for any impact to the Permittee's work due to BART operations.

4.t Any change in the scope of this permit shall be subject to a separate amendment.

5. The cost of repair and any and all losses caused by Permittee's damage to any BART property or facility, or resultant loss of service, shall be at the sole expense of Permittee. Any damage to BART property or facilities shall be repaired or remedied by Permittee or BART, at BART's discretion, and at Permittee's sole cost and expense. Permittee agrees to reimburse BART promptly for any such damage.

6. Permittee shall have the duty and hereby agrees to exercise reasonable care to properly maintain BART's property pursuant to this Permit, including but not limited to, removing debris dumped or placed on the Premises during the term of this Permit, from any source, and to exercise reasonable care inspecting for and preventing any damage to any portion of BART's property.

7. Permittee acknowledges that said Work constitutes an encroachment upon BART's property and agrees to perform said Work in accordance with and subject

to the provisions of this Permit, applicable provisions of the "General Terms and Conditions Relating to Utility Permits," attached hereto as Exhibit "C" and incorporated herein by reference, and all applicable state and local laws. Where there is a conflict between the provisions of this Permit and the "General Terms and Conditions Relating to Utility Permits," this Permit shall prevail.

8. Permittee agrees to notify BART's Construction Liaison in the Construction Services Division, John Fu at (510) 464-6439, at least 14 calendar days prior to any use of the Premises. Should Permittee require any utility hook-ups, Permittee must obtain any and all necessary permits and pay all fees in connection therewith. Permittee shall not perform any work on BART property until all necessary permits, licenses and environmental clearances have been obtained.

9. Permittee shall not (a) use, generate, or store, or allow its employees, contractors or agents to use, generate, or store any Hazardous Materials on the Premises, except for those materials required to perform the Work permitted under this Permit and in compliance with all federal, state and local laws and regulations for the protection of the environment, human health and safety, as now in effect or hereafter amended (hereinafter "Environmental Laws"); or (b) release or dispose of, or allow its employees, contractors or agents to release or dispose of, any Hazardous Materials on the Premises. "Hazardous Materials" are those materials now or hereafter (a) defined as hazardous substances or hazardous wastes pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. section 9601 et seq.) or the Resource Conservation and Recovery Act (42 U.S.C section 6901 et seq.); (b) listed in the Hazardous Substances List, Title 8, California Code of Regulations, G.I.S.O. Section 337-339, or those which meet the toxicity, reactivity, corrosivity or flammability criteria of the above Code; (c) characterized, regulated or subject to permitting or warning requirements as hazardous or toxic materials, substances, chemicals, pollutants, contaminants or wastes, or as materials for which removal, remediation or disposal is required, under any Environmental Laws; or (d) otherwise posing a present or potential hazard to human health, welfare or the environment.

10. BART shall at all times have the right to go upon and inspect the Premises and the operations conducted thereon to assure compliance with any of the requirements in this Permit. This inspection may include, but is not limited to, taking samples of substances and materials present for testing.

11. Permittee shall be responsible for and bear the entire cost of removal and disposal, in compliance with Environmental Laws, for all Hazardous Materials and non-hazardous wastes introduced to the Premises during Permittee's use and possession of the Premises. Permittee shall also be responsible for any remediation on or off the Premises necessitated by such Hazardous Materials or non-hazardous wastes. As used herein, "remediation" includes any investigation or post-cleanup monitoring that may be necessary in compliance with Environmental Laws. For purposes of disposal, Permittee shall be the generator of any such Hazardous Materials and shall provide a generator identification number on manifests for such disposal as required by Environmental Laws.

12. To the extent that any New Environmental Condition is caused by, or any Pre-existing Environmental Condition is contributed to or exacerbated by, Permittee's acts or omissions (including those of its employees, contractors and agents) during its use and possession of the Premises, Permittee shall, at BART's discretion, either (a) perform remediation of such New Environmental Condition or Pre-Existing Environmental Condition, at Permittee's cost and expense, in compliance with Environmental Laws and subject to the approval of a governmental agency with jurisdiction; or (b) indemnify BART against all costs incurred by BART in performing remediation of such New Environmental Condition or Pre-Existing Environmental Condition. A "New Environmental

Condition" is defined as the release or threatened release of Hazardous Materials on, about, under or emanating from the Premises as of the commencement date of this Permit. A "Pre-Existing Environmental Condition" is defined as the release or threatened release of Hazardous Materials on, about, under or emanating from the Premises prior to the commencement date of this Permit.

13. Permittee agrees to assume responsibility and liability for, and defend, indemnify and hold harmless BART, its directors, officers, agents and employees from all claims, demands suits, losses, damages, injury, and liability, direct or indirect (including any and all costs, fees and expenses in connection therewith) arising from the introduction on the Premises of any Hazardous Materials or non-hazardous wastes by Permittee (including its employees, consultants, subcontractors and agents) or, and to the extent that, from any New Environmental Condition caused by, or any Pre-existing Environmental Condition is contributed to or exacerbated by, the acts or omissions of Permittee (including those of its employees, consultants, subcontractors and agents) during its use and possession of the Premises.

14. Permittee agrees to assume responsibility and liability for, and defend, indemnify and hold harmless BART, its directors, officers, agents and employees from all claims, demands, suits, losses, damages, injury, and liability, direct or indirect (including any and all costs, fees and expenses in connection therewith), caused by acts or omissions of Permittee, its employees, contractors and agents in connection with the Work done pursuant to this Permit, except to the extent such losses are caused by the gross negligence or willful misconduct of BART. Permittee agrees at its own cost, expense and risk to defend any and all actions, suits, or other legal proceedings brought or instituted against BART, its directors, officers, agents and employees arising from the acts or omissions of Permittee, its employees, contractors and agents in connection with the Work done pursuant to this Permit, and to pay and satisfy any resulting judgments, settlements or other expenses associated therewith.

15. To the extent that a governmental agency with jurisdiction requires remediation of any Pre-Existing Environmental Condition that is discovered as a result of Permittee's activities pursuant to this Permit, and is not contributed to or exacerbated by the acts or omissions of Permittee, its employees, contractors or agents, Permittee shall, at BART's discretion, either (a) perform remediation of such Pre-Existing Environmental Condition, at Permittee's cost and expense, in compliance with Environmental Laws and subject to the approval of a governmental agency with jurisdiction; or (b) indemnify BART against all costs incurred by BART in performing remediation of such Pre-Existing Environmental Condition. Provided however, that in no event shall Permittee be responsible for remediation or indemnification with respect to the discovery of a Pre-Existing Environmental Condition that occurs outside the permitted work area or any other area where Permittee, its employees, contractors or agents are actually conducting work.

16. Permittee agrees that no easement, lease or other property right is acquired by Permittee through this Permit.

17. Upon any use of BART property by Permittee other than that authorized by this Permit, or upon failure of the Permittee to conform to any of the terms and conditions of this Permit, BART may terminate this Permit immediately.

18. Permittee shall provide insurance in accordance with the provisions of Appendix E of the Cooperative Agreement between the City and BART, attached hereto as Exhibit "D" and incorporated herein by reference.

SAN FRANCISCO BAY AREA

RAPID TRANSIT DISTRICT

By _____
Jeffrey P. Ordway, Manager
Real Estate and Property Development Department

Date _____

ACCEPTED

**BERNARD IMPREGLIO
HEALY JOINT VENTURE**

By _____

Date _____

Title _____

M-08.1-014-SF.pls.doc

Meeting was held Jan 8, 2013 between Redmond / Schall

- Held a discussion with Sarah Wilson / Ben Campbell / Mark Benson as to their findings and yet unresolved issue of payment of Indirect costs for TIA submittals
- A copy in .pdf is enclosed of Sarah Wilson / Ben Campbell / Mark Benson report

Redmond

- General Provision - Article 6.04B states that markup paid for change orders shall be full compensation and no separate payment of OH costs should be paid.
- General Provision – Article 7.02 was silent on how to compensate the contractor for a compensable time extension. Therefore, Article 6.04B applies as a mechanism for compensation.
- Overhead and profit markups for all direct and indirect costs regarding change orders are outlined in General Provision - Articles 6.04B and 6.04C.
- Understands the spec references Compensable Time extensions and Non Compensable Time extensions, but since the spec is silent on how to pay for it, Redmond defaults to the only allowed payment option , Article 6.04B and 6.04C

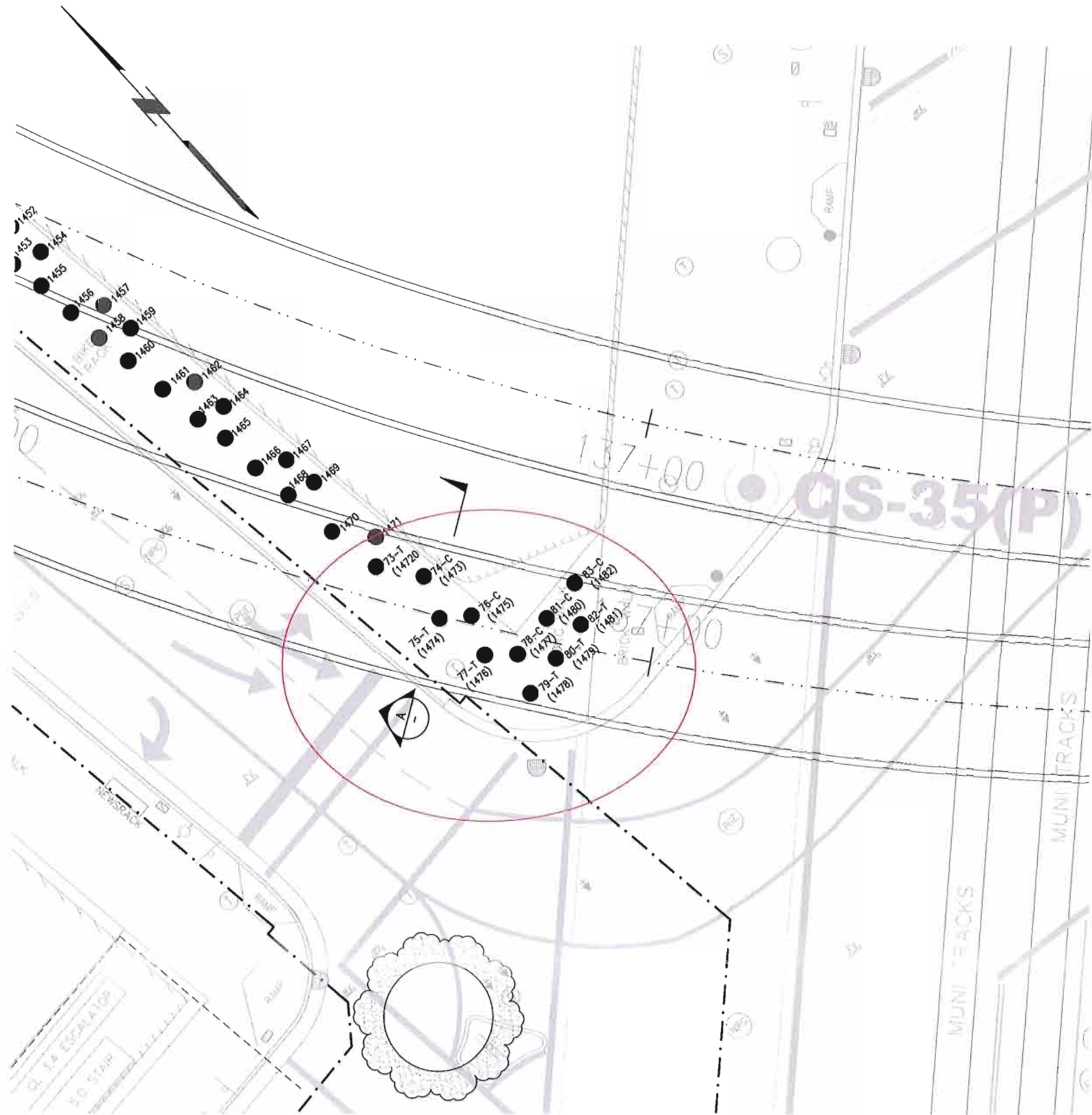
Schall

- Identifies that the specs differentiate between compensable and non compensable time extensions, if one was to only use the Article 6.04 B and 6.04C clause, there would be no difference between compensable and non compensable
- Article 7.02 is silent on how to pay for compensable time extensions, believes that a compensable time extension is due regardless of whether the spec describes details for compensation.
- Article 6.04B does not state that “Time” is to be paid for or included in the markup for overhead and profit

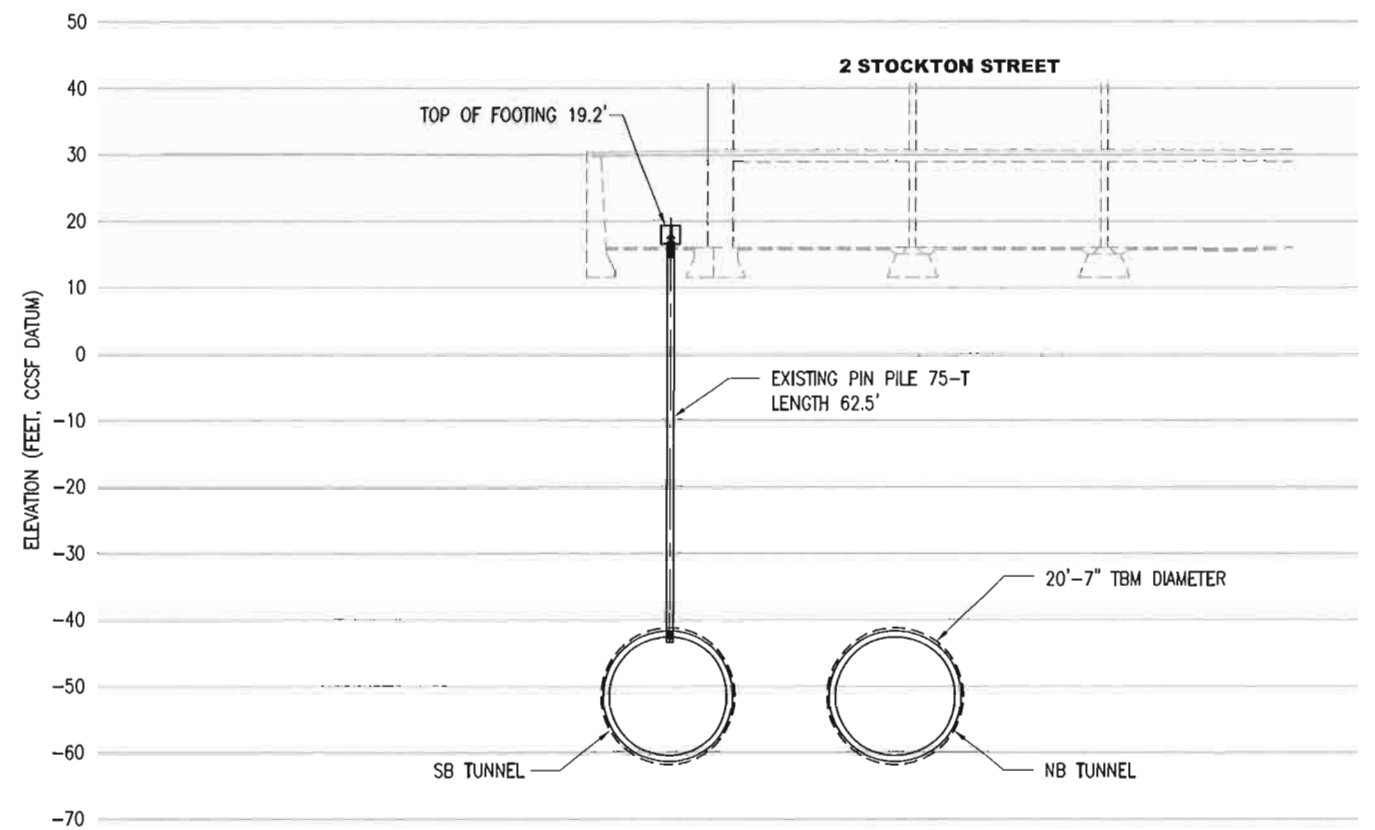
Suggested Joint Resolution

- SFMTA agrees and BIH would be open to a review and payment of “-Time Related / Variable Indirect Costs Only ”, those overhead items depicted in Article 6.04 that are time related costs. These include, but not limited to, Project Field Management Staff, Project Engineering Staff, time related expendables (field expense – office supplies, utilities, sanitary facilities, etc.)
- In general, SFMTA would not be open to pro-rating “ Fixed Indirect Overhead Costs ”, those costs such as but not limited to Contractor (~~owned – purchased vs rent~~) ~~assets, equipment, materials,~~ Home Office Engineering Staff, Attorneys or Business Functions or other Consultants, unless BIH can demonstrate these costs should be paid.-

- BIH will provide a listing of Time Related / Variable Indirects for review with sufficient backup information that supports its costs, such as but not limited to Certified payrolls, operating expense, copies of leases or rental paid invoices

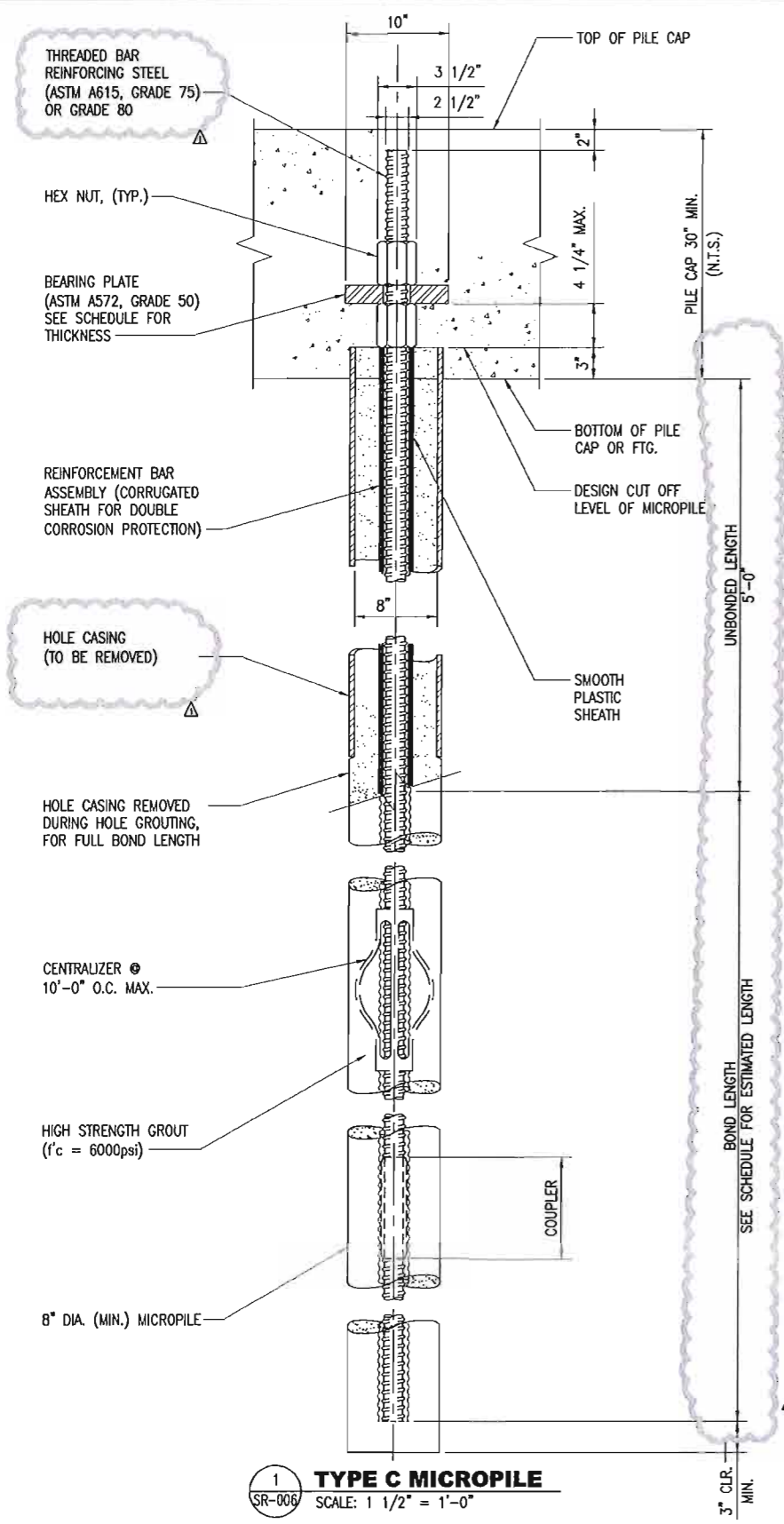


PLAN

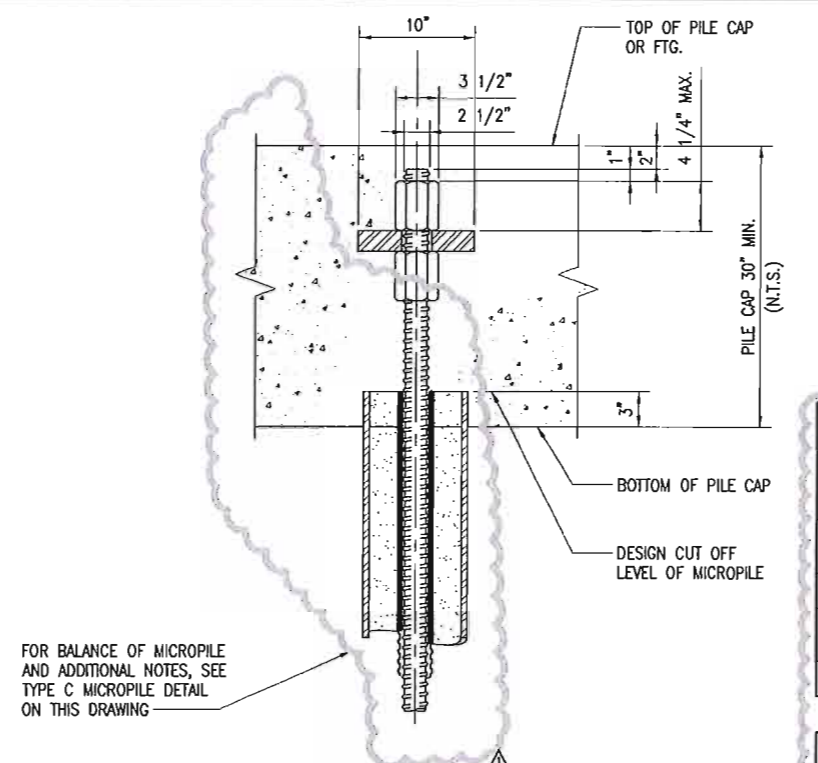


A SECTION
BP-122

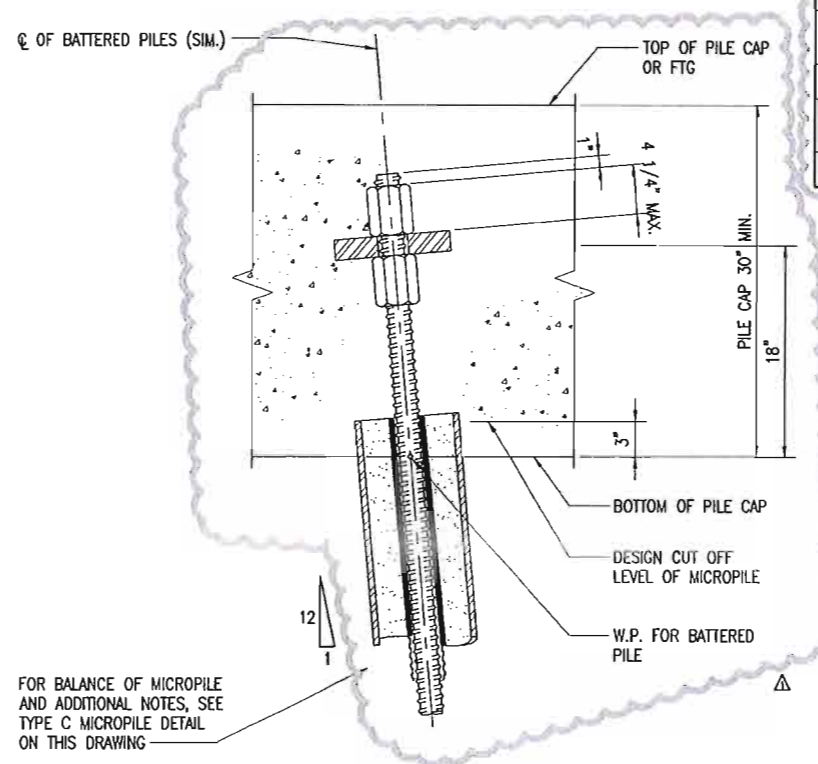
S:\vgnas003\muni\sfgov.org\m544.1\FinalDesign\Drawing-821\3-Structural\Sheet Files CP02\M54422SR006_R01.dwg FBayani Fri Oct 08,2010 - 4:37 pm SR-006



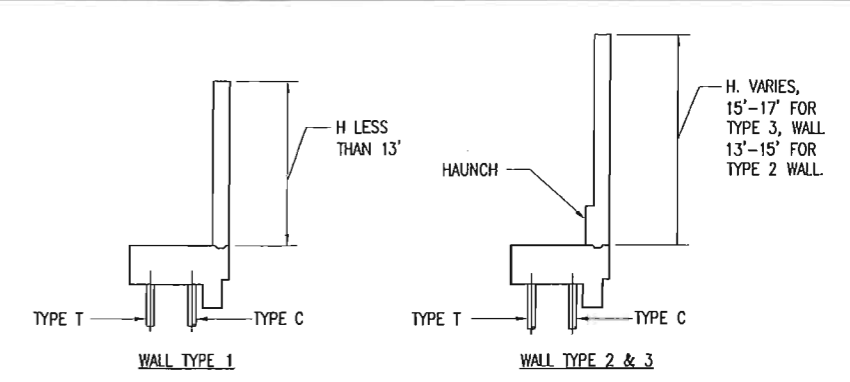
1 TYPE C MICROPILE
SR-006 SCALE: 1 1/2" = 1'-0"



2 TYPICAL TYPE T MICROPILE
SR-006 SCALE: 1 1/2" = 1'-0"



3 TYPE T BATTERED 1:12 MICROPILE
SR-006 SCALE: 1 1/2" = 1'-0"



	WALL TYPE 1		WALL TYPE 2		WALL TYPE 3	
	TYPE C PILES	TYPE T PILES	TYPE C PILES	TYPE T PILES	TYPE C PILES	TYPE T PILES
ESTIMATED BOND LENGTH	48 FT	30 FT	48 FT	18 FT	60 FT	30 FT
BEARING PLATE	2"x10"x10"	1-3/4"x10"x10"	2"x10"x10"	1-3/4"x10"x10"	2 1/2"x10"x10"	1-3/4"x10"x10"
PILE DESIGN LOAD	240 KIPS	150 KIPS	240 KIPS	90 KIPS	300 KIPS	150 KIPS
MAX LENGTH	60 FT	60 FT	60 FT	60 FT	-	-

	WALL TYPE 1	
	TYPE C PILES	TYPE T PILES
ESTIMATED BOND LENGTH	39 FT	23 FT
BEARING PLATE	2"x10"x10"	1-3/4"x10"x10"
PILE DESIGN LOAD	195 KIPS	115 KIPS
MAX LENGTH	45 FT	-

	TYPE C PILES	TYPE T PILES
	ESTIMATED BOND LENGTH	52 FT
BEARING PLATE	2"x10"x10"	1-3/4"x10"x10"
PILE DESIGN LOAD	260 KIPS	150 KIPS

- FOR MORE DETAILED REQUIREMENTS, SEE THE CONTRACT SPECIFICATIONS.
- FINAL BOND LENGTHS SHALL BE ESTABLISHED BY FIELD TESTING
 - THE TEST LOAD SHALL BE 133 PERCENT OF THE DESIGN LOAD
 - PERFORMANCE TESTS, CREEP TESTS AND PROOF TESTS SHALL BE PER SPECIFICATIONS
- SEE DETAIL **1** FOR TYPICAL TYPE C PILE DETAILS, AND DETAIL **2** FOR TYPICAL TYPE T PILE DETAILS.
- FOR 48 STOCKTON SEE **3** FOR TYPE T (BATTERED) PILE DETAILS AND DETAIL **1** FOR TYPE C DETAILS.

3 MICROPILE SCHEDULE
SR-006 SCALE: NTS

BUILDING ADDRESS	MICROPILE SCHEDULE
# 2 STOCKTON	USE SCHEDULE A
# 17-19 STOCKTON	USE SCHEDULE B
# 48 STOCKTON	USE SCHEDULE B

FOR ORIGINAL SIGNATURES, SEE CL-17856 REV. 0.

DATE	DESCRIPTION	REV. NO.	BY	CHECKED	APPROVED
10/08/2010	REVISED DETAILS - ADDENDUM 1	1	AL	MEF	JHE
07/08/2010	ISSUED FOR BID	0			

PB TELAMON

STRUCTUS, INC.
STRUCTURAL DESIGN AND ENGINEERING

DESIGNED	AL
DRAWN	EAA
CHECKED	FLC
REVIEWED	MC
RECOMMENDED	MF
APPROVED	RE
DATE	

CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED

EXECUTIVE DIRECTOR/CEO

THIRD STREET LIGHT RAIL PROGRAM
PHASE 2 - CENTRAL SUBWAY
UNION SQUARE/MARKET STREET STATION UTILITIES RELOCATION

STRUCTURAL MICROPILE DETAILS

CONTRACT NO.	1251
SPINA CONTROL NO.	CL-17856
DRAWING NO.	SR-006
SHEET NO.	169
REVISION	1

CN1251 As-built Records														
Pile No.	Equiv. survey marker ID	Date of installation	Indicated as-built bond length	Indicated As-built Length of #18 bar	Top of Footing (Approx.)	Cutoff Elevation	Assumed bar stick-up above cutoff	SB Track Station at pile location	TOR Elevation at Track Station	Offset from TBM CL to theoretical pile location based on survey	Is pile offset left or right when looking up-station?	Theoretical elevation of TBM shield at offset from CL	Estimated #18 Bar Tip Elevation	Theoretical Encroachment (ft)
	Back-side of SR-304 in as-builts	CN1251 sub. # 31-63-33, doc. 12755 Micropile Report 8/9/9	CN1251 sub. # 31-63-33, doc. 12755 Micropile Report 8/9/10	CN1251 sub. # 31-63-33, doc. 12755 Micropile Report 8/9/11	Obtained from CNCR #8	CN1251 sub. # 31-63-33, doc. 12755 Micropile Report 8/9/11	1252 dwgs SR 006 15" min. (T), 25" max. for C	By inspection from CADD	1252 dwgs TC-134	By inspection from CADD	By inspection from CADD (Left is negative, right is positive)	Formula provided by MF	Cutoff elevations plus stick-up minus bar length	
82-T	1481	7/7/2011	30	62.5	19.05	18.84	1.25	136+90	-57.40	-3.225	Left	-41.71	-42.41	0.70
83-C	1482	7/7/2011	30	62.5	19.05	18.84	2.08	136+88	-57.38	-8.604	Left	-45.82	-41.58	-4.24
80-T	1479	6/28-29/2011	30	62.5	19.05	18.84	1.25	136+87	-57.37	2.078	Right	-41.37	-42.41	1.04
81-C	1480	7/6/2011	30	62.5	19.05	18.84	2.08	136+85	-57.35	-3.045	Left	-41.60	-41.58	-0.03
79-T	1478	6/30/2011	30	62.5	19.05	18.84	1.25	136+85	-57.35	7.49	Right	-44.38	-42.41	-1.97
78-C	1477	6/29/2011	30	62.5	19.05	18.84	2.08	136+82	-57.32	2.607	Right	-41.45	-41.58	0.13
77-T	1476	7/8/2011	30	62.5	19.05	18.84	1.25	136+77	-57.27	3.747	Right	-41.77	-42.41	0.64
76-C	1475	7/11/2011	30	62.5	19.05	18.84	2.08	136+74	-57.24	-1.099	Left	-41.09	-41.58	0.49
75-T	1474	7/5/2011	30	62.5	19.05	18.84	1.25	136+70	-57.20	0.315	Right	-41.00	-42.41	1.41
74-C	1473	7/12/2011	30	62.5	19.05	18.84	2.08	136+66	-57.16	-4.718	Left	-42.10	-41.58	-0.52
73-T	1472	7/5/2011	30	62.5	19.05	18.84	1.25	136+60	-57.10	-4.31	Left	-41.84	-42.41	0.57

*Pile locations based on survey data found in CNCR #7

