

CONTRACT MODIFICATION NO. 20

SFMTA Contract No. 1252 - Tunneling

Contractor: Barnard Impregilo Healy J.V.
460 4th Street
San Francisco, CA 94197

Whereas, Contract 1252 originally included construction of a permanent shaft using secant pile shoring construction, located at Columbus Avenue to be used to retrieve the tunnel boring machines (TBMs) used to construct the Central Subway tunnels; and

Whereas, the Agency has deleted all Work for construction of the permanent retrieval shaft, secant pile shoring, and related ground treatment Work at Columbus Avenue; and

Whereas, the Agency has added to the Contract as Additional Work the construction of a temporary retrieval shaft and related Work at the site of the former Pagoda Palace Theater, which shall be constructed using cutter soil mix walls technique;

Now therefore, the parties agree to proceed with the following Work under Article 6 of the General Provisions of the Contract.

Changes to the Scope of Work:

1. Delete all Work related to the construction of the tunnel boring machine retrieval shaft on Columbus Avenue.
2. Provide demolition plans to demolish the existing building at 1731-1741 Powell Street (the Pagoda Palace Theater).
3. Construct an extension of the twin bore tunnels to site of the temporary TBMs retrieval shaft.
4. Construct a temporary retrieval shaft, shored using cutter soil mix walls,
5. After extraction of each TBM, Contractor shall seal each tunnel with a permanent concrete bulkhead. When both bulkheads have been constructed, Contractor shall cover the retrieval shaft with a steel roof deck cover, level and clean the Site. This Additional Work is described in the following new Drawings, which are incorporated to this Contract Modification by reference:

GE -001, GE-011 Rev. 1, CV-101 Rev. 1, CV-102 Rev. 1, GT-001, GT-101 Rev. 1, GT-121, GT-131 Rev. 1, ES-011, ES-012, ES-013, ES-101 Rev. 1, ES-201, ST-101 Rev.1, ST-101 Rev.1, ST-102 Rev 1, ST-103 Rev.1, ST-104 Rev.1, ST-105 Rev. 1, ST-201 Rev. 1, ST-202, ST-203 Rev. 1, ST-204 Rev. 1, ST-205 Rev. 1, ST-206 Rev. 1, ST-207 Rev.1, BP-001, BP-011, BP-021, BP-022, BP-023, BP-101 Rev.1, BP-102 Rev. 1, BP-103 Rev.1

6. Slip Lining; As shown on Field Sketch 1252-056 Rev. 1

Re-Line existing 3 ft. x 5 ft. sewer from approx. CTL Sta. 80+41 to 81+50. Slip line using 24" HDPE pipe. Build bulkheads and slurry fill around new slip lined pipe; and Re-Line existing 3 ft. x 5 ft. sewer from the manhole at the intersection of Powell and Filbert St. to the manhole at the intersection of Powell and Union St. Slip line using 16" HDPE pipe. Build bulkheads and slurry fill around new slip lined pipe.

Insertion Pit: Construct pit for relining 3 ft. x 5 ft. sewer from the manhole at the intersection of Powell and Filbert St. to the manhole at the intersection of Powell and Union St. The determination to construct the Insertion Pit will be as mutually agreed upon between BIHJV and the SMFTA.

Perform backfilling and compaction of excavated areas and restoration of asphalt upon completion.

7. All Work under this Contract Modification shall comply with Contract 1252 requirements and the Specifications, except as specifically they are modified herein by the following technical Specifications and the Drawings referenced in paragraph 5, above and the PCC#10 Record of Negotiations , which are incorporated here by reference. New Specifications: Section 05 30 00 Steel Decking, and Section 31 50 20 Cutter Soil Mix Walls. Modified Specifications: Section 03 05 15 Portland Cement Concrete, Section 05 12 00 Structural Steel Framing, Section 31 09 13 Geotechnical Instrumentation and Monitoring, Section 31 23 19 Dewatering, and Section 31 50 00 Excavation Support and Protection.

Schedule:

The SFMTA hereby directs and authorizes Contractor to commence the Work described in this Contract Modification , starting on September 3, 2013.

Work described in this Contract Modification shall not extend the Contract Period, Final Completion date, or interim milestones by more than fourteen (14) Days.

Supplementary Conditions:

SFMTA will direct its engineering consultant to provide designs for compensation grouting and will direct the engineering consultant to provide field engineering direction to Contractor to to protect surrounding structures identified in the Technical Specifications and Drawings.

Contractor shall construct and implement compensation grouting in accordance with SFMTA's engineering consultant's designs and field engineering direction..

Contractor shall be responsible for completing the Work described in the Contract Modification within the accepted proposal schedule (dated August 17, 2013), on the condition that the SFMTA provides necessary designs, permits and site access in accordance with dates included in the accepted proposal schedule.

The parties understand and agree that the steel roof deck is designed and will be constructed only to close the retrieval shaft from public access. The steel roof deck is not a structural support element designed or constructed to bear weight or withstand force beyond that required to close the retrieval shaft. Following installation of the steel roof deck and Contractor's return of control of the retrieval shaft site back to the City, Contractor shall not be liable for any use of the steel roof deck for which it is not specifically designed or constructed.

All references in the Designs, Drawings, Specifications and other Contract Documents to Contract 1278 and Contract 1252 CMod 18 shall be interpreted as meaning PCC#10.

The following Contract Pay Items are deleted in their entirety:

Delete all Work related to the construction of the Tunnel Boring Machine Retrieval Shaft and Ground Improvement on Columbus Avenue. (Delete Pay Items ST-4 & ES-4 in their entirety, delete remaining Utility & Restoration work as described in Utility credit record of negotiation & reduce Pay Items GE-3 & GE-6 in the aggregate amount of \$1,359,364) (\$5,112,089)

The following new Contract Pay Items are added to compensate for Additional Work described above:

CM20 – 1	Design of Demolition Plans in the agreed upon lump sum amount of:	\$55,517
CM20 – 2	Construct an extension of twin bore tunnels to relocated TBM Retrieval Shaft, construct relocated Retrieval Shaft, including concrete bulkhead, cover and site restoration and all associated	\$9,665,566

Work as depicted on attached Drawings in the agreed upon lump sum amount of: .

CM20 – 3 Sewer Slip Lining in the agreed upon lump sum amount of: \$104,720

Estimates for progress payment purposes for new Contract Pay Items CM20-1, CM20-2 and CM20-3 will be made based on the Contractor's approved Schedule of Values.

CM20 – 4 Install Compensation Grouting Pipe and Pre-condition
2,500 LF @ \$130 LF \$325,000

- a. The unit price for this item shall include full payment for the cost of work and materials necessary for drilling, conditioning, pregrouting, and abandoning compensation grout holes.
- b. Only compensation grout hole work shown on the Building Protection Plans BP Drawings will be measured for payment.
- c. The cost of redrilling and casing holes, and temporary changes to driveways, walkways, and landscaping is incidental to the work.
- d. Estimates for progress payment purposes will be made based on the length of the hole as indicated measured by the lineal foot, and multiplied by the unit price.

CM20 – 5 Inject Compensation Grout
2,508 CF @ \$4.50 CF \$11,286

- a. The unit price for this item shall include full payment for the cost of equipment and materials necessary for injecting compensation grout.
- b. Only compensation grouting work shown on the Building Protection Plans BP Drawings will be measured for payment.
- c. Estimates for progress payment purposes will be made based on the amount of grout injected, in approved grout holes, measured by the cubic foot, and multiplied by the unit price.

CM20 – 6 Daily Compensation Grouting Crew Rate
10 EA @ \$10,000 \$100,000

- a. The unit price for this item shall include full payment for the cost of a grouting crew to inject compensation grout for a single shift
- b. Estimates for progress payment purposes will be made based on the number of shifts authorized by the Engineer, and multiplied by the unit price bid.

Total Amount of this Contract Modification: \$5,150,000

Previous Total of Contract: \$231,260,196

New Revised Total of Contract: \$236,410,196

Contract Time as a result of this Contract Modification is extended by 14 Days, from 1150 days to 1164 days.

Previous Substantial Completion Date: March 22, 2015

Revised Substantial Completion Date: April 5, 2015

This Contract Modification is made in accordance with Article 6 of the General Provisions of the Contract. Contractor acknowledges and agrees that the amounts stated as compensation herein are in full satisfaction and accord of all

compensation owed to and costs incurred by Contractor arising from or related to the Work (including Incidental Work and Additional Work) described in or covered by this Contract Modification. Contractor hereby releases the City from any and all claims arising from or related to the Work described in or covered by this Contract Modification, including without limitation claims for additional compensation, reimbursement, or time.

If this Contract Modification involves the granting of additional time, with or without cost, Contractor hereby releases the City from any and all costs associated with such extension of time, including but not limited to costs for labor, labor burden, materials, equipment, disruption, lost productivity, escalation, delay, extended overhead, administration, and extended performance time.

Any Work, effort or expense incurred by Contractor that is necessary to implement the changes to the Work and perform the Additional Work generally described in this Contract Modification, even if not fully described herein, shall be deemed Incidental Work covered and fully compensated by this Contract Modification, and no additional compensation shall be owed or claimed arising from or for said Additional Work or Incidental Work.

The compensation stated in this Contract Modification is full and complete compensation to Contractor for all costs incurred by Contractor for the Work described herein, including but not limited to indirect costs, direct costs, labor, labor burden, materials, equipment and overhead.

Except as specifically stated herein, all other terms and conditions of the Contract remain unchanged. Any modification of the Contract must be express and in conformance with the General Provisions and Special Provisions.

In Witness Whereof, the parties have executed this Modification in quadruplicate in San Francisco, California as of this _____ day of _____, 2013.

BARNARD IMPREGILO HEALY J.V.

CITY AND COUNTY OF SAN FRANCISCO

By: 
Ben Campbell
Project Manager

By: _____
Edward D. Reiskin
Director of Transportation
San Francisco Municipal Transportation Agency

APPROVED AS TO FORM:

By:  9-2-13
Robert K. Stone
Deputy City Attorney