# EXHIBIT A - Trade Subcontractor Bid Package Manual and Forms Contract \#301000300 

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Trade Package \# TG03: Buttress;
Shoring; Internal Bracing; Access
Trestle, Temporary Bridge; Excavation;
Demolition; Dewatering; and Micropiles (BSE); dated November 3, 2010

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## I. BIDDER QUALIFICATION PROCESS

$\underline{\text { C... If the bidder is not previously qualified and other than the prequalified contractors/joint ventures }}$ listed below, the bidder shall submit a Request for Qualification (RFQ) package no later than 2:00pm Pacific time on October 01, 2010. The following prequalified contractors/joint ventures do not need to submit a RFQ package at this time. ...C

## Prequalified Subcontractors/Joint Ventures:

- Balfour Beatty Infrastructure, Inc.
- Granite/CJA/NCC Joint Venture
- Kiewit Pacific Co.
- Shimmick/Skanksa/Traylor, A Joint Venture
- Tutor-Saliba Corporation

Notification of the qualification will be provided to the bidder prior to bid date. Bids submitted by nonqualified Bidders will not be accepted or opened. Non-qualified Bidders assume all risk and costs associated with submitting a bid if they are deemed not qualified.

Trade Subcontractors looking to qualify during the bid period must use "Request for Qualifications TG03" form available on the TJPA website (http://transbaycenter.org/tjpa/doing-business-with-the-tjpa/current-contract-opportunities/shoring-buttress-excavation), posted 02/02/2010. Trade Subcontractors looking to qualify shall also familiarize themselves with the RFQ Questions \& Answers posted to the same website.

## END OF BIDDER QUALIFICATION PROCESS

## II. KEY DATES FOR BIDDING PROCESS

C... Each bidder shall submit their "Bid Form", "Schedule of Bid Prices", and other applicable sections and forms in Specification and Project Bidding Manual. Required submittal documents for the bid are listed at Bidding Checklist (BCL) in Project Bidding Manual. ...C

Package Issuance Timeline: Starting July 30, 2010 IFB packages, except the drawings and specifications, will be available for download from the TJPA website (http://transbaycenter.org/tjpa/doing-business-with-the-tjpa/current-contract-opportunities); or by contacting Webcor/Obayashi Joint Venture by e-mail at TransbayBidding_TG03@webcor-obayashi.com, or fax at (510) 476-3005. Information regarding how to obtain the drawings and specifications will be posted on the TJPA website prior to July 30, 2010.

Pre-Bid Meeting: A pre-bid conference, followed by a jobsite walk, for Trade Subcontractors interested in submitting bids will be held on August 19, 2010, at 10:00 am in the TJPA offices at 201 Mission Street, Suite 2100, San Francisco, California 94105. The pre-bid conference is mandatory for Bidders. It is optional for subcontractors to Bidders.
E... C... Questions/Clarifications: Questions or clarifications regarding the Bid must be submitted in writing to Webcor/Obayashi Joint Venture no later than 2:00pm Pacific time on October 15, 2010. Questions On Bidding Documents (QBD) form in Project Bidding Manual shall be used for questions or clarifications. Refer to "Communication with Webcor/Obayashi Joint Venture" for contact information. $\ldots . . . . E$
E... C... Bid Due Date: Each Trade Subcontractor shall submit sealed bids to the TJPA offices at 201 Mission Street, Suite 2100, San Francisco, CA, 94105 by 2:00 pm Pacific time on November 9, 2010. No bids will be accepted after 2:00 pm on the bid due date. $\underline{\ldots} \boldsymbol{C}$... $\boldsymbol{E}$
C... Interviews: Webcor/Obayashi Joint Venture at its own discretion may conduct interviews with any or all of the Trade Subcontractors if clarifications for their Bid are required by TJPA and/or Webcor/Obayashi Joint Venture for the determination. Interviews will be for clarification of Trade Subcontractor's responses in the Bid Application, for discussion of additional information, and to supplement Trade Subcontractor's responses in the Bid Application. ...C
E... C... Notification of Intention to Award Contract: December 2010

TJPA Board Vote to Approve the Contract Award: 12/2/2010 (December Board Meeting) ... $\boldsymbol{C}$... $\boldsymbol{E}$

## END OF KEY DATES FOR BIDDING PROCESS

## III. COMMUNICATION WITH WEBCOR/OBAYASHI JOINT VENTURE

$\underline{\text { D... At no time during the bid process (defined as the time between issuance of this IFB until issuance of }}$ the Notice of Intent to Award to Trade Subcontractor) shall Trade Subcontractors contact any person(s) or staff of the TJPA, TJPA Program Management/Program Controls (PMPC) team, Webcor/Obayashi Joint Venture, CM Oversight (CMO), or other TJPA Consultants regarding this IFB. The only contact is for submission of questions using the contact directions below. $\underline{\underline{\boldsymbol{D}} \boldsymbol{D}}$
C... Submit questions using the Question On Bidding Documents (QBD) form through Webcor/Obayashi Joint Venture. See Project Bidding Manual for QBD form. ...C

E-mail Webcor/Obayashi Joint Venture at TransbayBidding_TG03@webcor-obayashi.com.
Fax Webcor/Obayashi Joint Venture at (510) 476-3005.

END OF COMMUNICATION WITH WEBCOR/OBAYASHI JOINT VENTURE

# IV. SCOPE OF THE PACKAGE AND BID ITEM INFORMATION 

TG03 Buttress, Shoring, Internal Bracing, Access Trestle, Temporary Bridge, Excavation, Demolition, Dewatering, and Micropiles Package (BSE):

## A. Package Scope Summary

D... The scope of work for the Buttress, Shoring, Internal Bracing, Access Trestle, Temporary Bridge, Excavation, Demolition, Dewatering, and Micropiles Package (BSE) is described in the Contract Documents. The cost includes all necessary labor, material, equipment, supplies, and supervision required to complete the work in accordance with the Contract Documents. Refer to VIII. CONTRACT
DOCUMENT LIST for the Contract Documents for this Trade Package. ...D
The major items of the work for this package will consist of the following elements:

- Buttress Construction
- Shoring Wall Construction
- Excavation including removal/disposal of hazardous material
- Design, installation, modification, and removal of a Dewatering System (Design-Build)
- Removal of existing structures, foundations, and utilities
- Design, installation, and removal of Internal Bracings (Design-Build)
- Design, installation and removal of Access Trestle (Design-Build)
- Design, installation and removal of Temporary Bridges (Design-Build)
- Micropile Construction
- Installation of mud/rat slab
D... Engineers Estimated Value of this Subcontract is anticipated to be valued at approximately \$206,500,000. ... $\boldsymbol{D}$
E... Subcontractor is required to review the Contract Documents and Site Conditions in accordance with all requirements set forth in the Prime Contract as respects its scope of work (See Document 00700 General Conditions, Article 3.03). This shall include, without limitation, the obligation to carefully review the appropriate portions of the Contract Documents a minimum of 35 days in advance of the Work to be executed for the express purposes of checking for any errors, omissions, discrepancies or ambiguities and notifying CM/GC in writing promptly within this time period upon discovery of errors, omissions, discrepancies or ambiguities so that the CM/GC can properly notify the TJPA within the 30 day time period prescribed in Document 00700 - General Conditions, Article 3.03.C. In addition, if Subcontractor performs work that it knows, or reasonably should have known, to be contrary to the Code or other applicable laws, statutes, ordinances, rules and regulations without written notice to CM/GC, subcontractor shall assume responsibility for such Work and shall bear all costs of correction (See Document 00700 - General Conditions, Article 3.08.E). ...E


## B. General Work

 include, but not be limited to, site preparation, temporary work surfaces for geothermal and ground rod work by other Trade Subcontractor, site safety, temporary electric facility, temporary water facility, lighting for night work, traffic/pedestrian lighting, temporary toilets, traffic/pedestrian barricades and krails, flagging for deliveries and off-haul, pedestrian protections, necessary temporary sidewalk /driveway modifications, temporary accesses, crane/rescue baskets, toilets, surveying, weather mitigation, clean-up, traffic police, dump permits and fees, pedestrian protection, flagging for deliveries, safety work and small
tool/equipment specific for this work package. "IV. Trade Subcontractor Requirements" in Project Bidding Manual and the Contract Documents shall be referred to for more information. $\underline{\ldots \boldsymbol{C}} \ldots \boldsymbol{\ldots} \boldsymbol{\ldots} \boldsymbol{E}$

Trade Subcontractor's cost of the general work, overhead, office cost, applicable permits/legal fees, administration, bonds, insurances, contingency, profit and other necessary activities for this project shall be included in the bid amount and distributed into the Bid Items.

Items in Schedule A of Prime Contract (Specification Section 0005 20) are categorized as reimbursable expense. Those costs shall not be included in the Bid Amount and will be reimbursed by TJPA separately. For more details and definitions, refer to the Prime Contract.
C... The following items for this package are added in "IV. Trade Subcontractor Requirements" in Project Bidding Manual: ...C
A. General Information
E... 14. Security

Trade Subcontractor is responsible for maintaining security and related work for its own work for each zone until completion of Mud/Rat Slab construction. Security for Temporary Bridges and Access Trestles shall be maintained by Trade Subcontractor until their removal. Security for Staging Areas that may be provided by TJPA shall be maintained by Trade Subcontractor all the time. ...E

## E... 15. Weather Protection

Trade Subcontractor is responsible for maintaining weather protection and related work for each zone until completion of Mud/Rat Slab construction. Those facilities for Temporary Bridges and Access Trestles shall be maintained by Trade Subcontractor until their removal. Weather protection for Staging Areas that may be provided by TJPA shall be maintained by Trade Subcontractor all the time. ... $\boldsymbol{E}$

## 17. Temporary Power

E... C... Temporary power skids might be available at beginning of the dewatering. The usage of the temporary power shall be limited to Dewatering, Lighting and other small equipment. Power usage fee, which is necessary to complete the contract work and approved by TJPA, will be reimbursed by TJPA and shall not be included in the Bid Price. Trade Subcontractor is responsible for maintaining the temporary power skids and related facilities until completion of Mud/Rat Slab construction. ... $\underset{\text {...E }}{ }$
C... 18. Temporary Lighting ... $C$
E... Trade Subcontractor shall be responsible for installing and maintaining temporary lighting at the perimeter traffic/pedestrian barricades, at pedestrian walkways, and as required to provide code-minimum lighting at egress paths, as well as sufficient foot candle lighting levels to safety perform the work at all times, including within the excavation. At a minimum, Trade Subcontractor's lighting plan will include temporary poles at street level. In addition to supporting lighting, temporary poles shall include conduit for security cameras, power at the pole tops for security cameras, and mounting hardware for security cameras. Security cameras will be installed and maintained by others. Temporary lighting work item includes, but is not limited to, installing lighting poles, installing all hardware, switch boxes, breakers, conduits, pulling strings among temporary power skids /generators /lighting poles and maintenance required for temporary lighting works. Trade Subcontractor's lighting plan will be a submittal requirement for the project. Trade Subcontractor is responsible for maintaining the temporary lighting and related facilities for each zone until completion of Mud/Rat Slab construction. Those facilities for

Temporary Bridges and Access Trestles shall be maintained by Trade Subcontractor until their removal. Temporary lighting for Staging Areas that may be provided by TJPA shall be maintained by Trade Subcontractor all the time. ...E
E... 19. Temporary Water

Trade Subcontractor is responsible for maintaining temporary water and related facilities for its own work for each zone until completion of Mud/Rat Slab construction. $\underline{\underline{E} E}$
E... 24. Traffic

Trade Subcontractor is responsible for maintaining traffic control and related work for its own work for each zone until completion of Mud/Rat Slab construction. Traffic control for Temporary Bridges and Access Trestles shall be maintained by Trade Subcontractor until their removal. Traffic control for Staging Areas that may be provided by TJPA shall be maintained by Trade Subcontractor all the time. ...E
25. Sidewalk and Street Coordination
$\boldsymbol{E} .$. Include cost to furnish, install, maintain, and remove perimeter rail, traffic/pedestrian barricades, safety cable, gates, and wheel stop at top of all excavated conditions, and shored conditions for Trade Subcontractor's work. Access Trestle and Temporary Bridge perimeter railing will be as required by the Contract Documents and Attachment 2 of this document. Existing fences left by Existing Terminal and Ramps Demolition Contractor shall be taken over and added/modified/reinforced by Trade Subcontractor, as required to construct the traffic/pedestrian barricades. Trade Subcontractor shall have full responsibility (maintenance, repair, etc.) for those facilities after their Notice to Proceed (NTP) \#2. Trade Subcontractor is responsible for maintaining those facilities including street cleaning and graffiti control until completion of Mud/Rat Slab construction and turn over to the next Trade Subcontractor. Those facilities and work for Temporary Bridges and Access Trestles shall be maintained by Trade Subcontractor until their removal. Those facilities and work for Staging Areas that may be provided by TJPA shall be maintained by Trade Subcontractor all the time. ...E
D... Trade Subcontractor shall coordinate installation and maintenance of pedestrian walkways at cross-streets at all times. All ramps required for connection of pedestrian walkways to existing sidewalks to shall meet all codes including applicable ADA requirements. The Trade Subcontractor shall check walkways, ramps and other pedestrian facilities throughout the workday for potential safety issues. ...D
27. Personnel/Material Access
$\underline{E} . . \underline{D} .$. Trade Subcontractor shall include in their scope of work all required access to the bottom of excavation, typically defined as, but not limited to, manlifts, stairs/stair platforms, and ladders. The Trade Subcontractor's responsibility for Personnel/Material Access will end at the acceptance of the rat slab. $\ldots \boldsymbol{\ldots} \ldots \boldsymbol{I}$
E... The Exhibit I "MH" Activities do not represent the BSE Trade Subcontractor's

Personnel/Material Access hoists. These Activities represent the hoists to be included in followon Trade Subcontractor scope. Trade Subcontractor shall provide hoists for accesses to the bottom of mass excavation area. Minimum hoist requirement shall be dual hoists, each with minimum $5,000 \mathrm{lb}$ capacity, approximately $5 \mathrm{ft} x 12 \mathrm{ft}$ inside dimensions, and non hydraulic system. Refer to "Attachment 2 Logistics" for locations of the hoists. The BSE Trade Subcontractor will remove their hoists at the completion of the rat slab. ...E
E...
29. Superintendent

At minimum, the BSE Trade Subcontractor shall have One General Superintendent, Four Zone Field Superintendents, Four Zone Assistant Superintendents, and Field Engineers/ Formen as needed to execute the work.
$\ldots$
E... 34. Storm Water pollution Prevention, Erosion, and Sediment Control Plan Trade Subcontractor is responsible for maintaining those facilities for each zone until completion of Mud/Rat Slab construction. Maintaining those facilities for Temporary Bridges and Access Trestles shall be maintained by Trade Subcontractor until their removal. Those facilities for Staging Areas that may be provided by TJPA shall be maintained by Trade Subcontractor all the time. ...E
D. SBE Program
C... Trade Subcontractor shall make good faith efforts to obtain a minimum SBE participation of $24 \%$ of the total value of Trade Subcontractor's bid value. SBE participation shall be as defined in the Contract Documents. ...C
E. Coordination
C... 2. With Other Trades ... $\boldsymbol{C}$
D... Trade Subcontractor shall coordinate their work with other Trade Subcontractors, especially, but not limited to, Trade Subcontractor that will install Geothermal, Electrical Ground Rod, the Permanent Train Box Structure, and Permanent Superstructure during TG03 work, as well as Utility Relocation Trade Subcontractor and the Existing Terminal and Ramps Demolition Contractor. TG03 Trade Subcontractor shall be responsible for coordination of safe access for other Trade Subcontractors in a manner that does not impact other Trade Subcontractors’ work. $\ldots$...

## E... H. Clean Up

Trade Subcontractor's clean up responsibilities shall end at the completion of Mud/Rat Slab construction. Cleaning up for Temporary Bridges and Access Trestles shall be maintained by Trade Subcontractor until their removal. Cleaning up for Staging Areas that may be provided by TJPA shall be maintained by Trade Subcontractor all the time. $\underline{\underline{E}}$

## C. Base Bid Item Scope

This section is only supplemental information used to describe how the Bid pricing is to be broken down and to generally describe the scope of the work defined in the Contract Documents. All necessary work from mobilization to handover to the next Trade Subcontractor shall be included in the Bid items.

## 1. Mobilization

D... This bid item includes all mobilization, demobilization, and other preparation costs described in the "SECTION 011505 -Mobilization" in the Specification for this package. The Mobilization bid price for NTP\#2 shall not exceed 5\% of the Total Bid amount. ...D

## 2. Pre-Trenching and Back Filling for Shoring Wall

E... Trenching and Backfilling shall be done prior to Shoring Wall construction in accordance with the Contract Documents. This work item includes all locations where Shoring Wall is constructed including cut-off walls for zoning. Removing man-made debris in the excavated material, such as brick, concrete, pipe, cable, wood, steel hardware, ceramics, abandoned utilities and others, and its disposal is to be included in this work item. Hazardous material shall be disposed by following all
relevant regulations in accordance with governing authorities. Additional hauling and disposal premium cost for existing Class I and Class II hazardous material in pre-trenching area shall be paid by the bid items of Soil Disposal Premium for Hazardous Material Class I and Class II. This work item includes, but is not limited to, saw-cutting pavement, excavating, removing obstructions, capping dead end utilities, disposing materials, and back filling with specified materials. Trade Subcontractor shall coordinate their work with that of the Owner's Archaeologist. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fee, incidentals and any other costs/fees necessary to complete this work item. ...E

## 3. Removal and Disposal of Existing Tie-back Anchors for Adjacent Properties

Removal of Existing Tie-back Anchors for adjacent properties shall be done prior to Shoring Wall construction, in accordance with the Contract Documents. This work item includes, but is not limited to, excavating, removing existing tieback anchors, disposing materials, and back filling with specified materials. Tieback removal shall be conducted in such a way as to not damage adjacent properties. Trade Subcontractor shall be responsible for all repair costs, if damage occurs. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fee, incidentals and any other costs/fees necessary to complete this work item.

## 4. Existing Reinforced Concrete Structure Removal and Disposal

Existing reinforced concrete structures in the excavation areas shall be removed and disposed in accordance with the Contract Documents. The Existing Terminal and Ramps Demolition Contractor will demolish the majority of the above grade structure in accordance with the plans and specifications of the Existing Terminal and Ramps Demolition Contract. The rest of the Demolition shall be included in this BSE Package. This work item includes, but is not limited to, breaking up, removing, and disposing the existing reinforced concrete basement walls, basement floor and pile caps. If any temporary shoring and/or supports are required specific to this work item, Trade Subcontractor bid price shall include its cost. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.

## 5. Existing Wooden Pile Removal and Disposal

E... Existing wooden piles in the excavation area shall be removed and disposed in accordance with the Contract Documents. The Existing Terminal and Ramps Demolition Contractor will demolish the above grade structure in accordance with the Contract Documents of the Existing Terminal and Ramps Demolition Contract. The rest of the Demolition shall be included in this BSE Package. This work item includes, but is not limited to, excavation, breaking, removing, and disposal of the existing wooden piles. If any temporary shoring and/or supports are required to perform this work item, its cost shall be included. Hazardous materials, such as creosoted piles shall be disposed of following relevant regulations. The hauling and disposal cost for of existing wooden piles as hazardous materials shall be included in this bid item. The Trade Subcontractor shall develop a plan for the removal of the timber piles according to the Contract Documents. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item. $\underline{\underline{E}}$

## 6. Existing Concrete Pile Removal and Disposal

Existing concrete piles in the excavation area shall be removed and disposed in accordance with the Contract Documents. The Existing Terminal and Ramps Demolition Contractor will demolish the above grade structure in according with the Contract Documents of the Existing Terminal \& Ramps

Demolition Contract. Any remaining demolition shall be included in this BSE Package. This work item includes, but is not limited to, excavation, breaking, removing, and the disposing of the existing concrete piles. If any temporary shoring and/or supports specific to this work item are required, its cost shall be included. Lateral soil movement caused by extracting the piles is strictly prohibited. The Trade Subcontractor shall develop a plan for the removal of the concrete piles without incurring any lateral movement of the surrounding soils. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.

## 7. $\mathbf{8 0}$ Natoma Shoring Wall Soldier Pile Removal and Disposal

Existing wide flange beams installed for the building construction at 80 Natoma lot in the excavation area shall be removed and disposed in accordance with the Contract Documents. Installation details are contained in the drawings of the 80 Natoma project included in the reference documents. This work item includes, but is not limited to, excavation, cutting, removing, and disposing the existing wide flange beams. If any temporary shoring and/or supports specific to this work item are required, its cost shall be included. The removal of the portion of the wide flange beams below required bottom of excavation is not required. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.

## 8. 80 Natoma Pile Removal and Disposal

Existing Tubex piles installed for the building construction at 80 Natoma lot in the excavation area shall be removed and disposed in accordance with the Contract Documents. Installation details are contained in the drawings of the 80 Natoma project included in the reference documents. This work item includes, but is not limited to, excavation, cutting, removing, and disposing the existing piles. If any temporary shoring and/or supports specific to this work item are required, its cost shall be included. The removal of the portion of the piles below required bottom of excavation is not required. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.

## 9. Shoring Wall Construction (Perimeter Shoring Wall with Soldier Beams)

D... Shoring Wall shall be constructed in accordance with the Contract Documents. Refer to the section below for work regarding the cut-off wall construction for zoning. Hazardous/High-PH material shall be disposed by following relevant regulations and its cost included in this work item. This work item includes, but is not limited to, preparing equipment pad, construction of Shoring Wall, installation of soldier piles, and disposal of material. The Trade Subcontractor shall install OSHA certified perimeter K-rails and hand rails on the top of shoring walls as specified in the Contract Document. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item. $\underline{\underline{\boldsymbol{D}}}$

## 10. Shoring Wall Construction (Cut Off Wall for Zoning)

Shoring Wall for cut-off wall for zoning shall be constructed in accordance with the Contract Documents. Trade Subcontractor shall be responsible for the design and inclusion of structural elements (soldier piles, bracing, pin piles, etc.), if required for the cut off walls to support the excavation of adjacent zones. Refer to the Logistics section for a description of the zones. Hazardous material shall be disposed by following relevant regulations and its cost included in this work item. This work item includes, but is not limited to, preparing equipment pad, construction of Shoring Wall, installation of soldier piles as required to support excavation from zone to zone, and disposal of material. The contract amount paid for this item shall include full compensation for
furnishing all labor, materials, equipment, tools, transportation, disposal fee, incidentals and any other costs/fees necessary to complete this work item.

## 11. Buttress Drilled Shaft Installation

E... The drilled shafts for the buttress shall be constructed in accordance with the Contract Documents to the depth shown on the Contract Drawings. This work item includes, but is not limited to, instrument protection slab, drilling platform(s), setup for caisson drilling, caisson drilling, concrete placement, rebar placement, and placement of controlled low strength material. Payment quantities per linear foot for Unit Rate bid items shall be measured from the designed working platform level to approved tip elevations of shafts. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item. $\underline{\ldots . E}$

## 12. Test Program Shaft Concrete Removal and Disposal

Five existing seven feet dia. concrete shafts in the excavation area shall be removed and disposed of in accordance with the Contract Documents. Further information regarding the details of installation of these concrete shafts is contained in the Construction Monitoring Report Drilled Concrete Shafts for Buttress Construction Test Program document. This work item includes, but is not limited to, excavation, breaking, removing, and disposing of the existing concrete shafts. If any temporary shoring and/or supports specific to this work item are required, its cost shall be included. Removal of pipes for inclinometers, sonic integrity tests and other incidental measuring parts for the Geotechnical Test Program of the Concrete Shafts shall be included in this item. The removal of that portion of the concrete shafts below required bottom of excavation is not required. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.

## 13. Test Program Shoring Wall Soldier Piles Removal and Disposal

Existing wide flange beams used for the Geotechnical Test Program in the excavation area shall be removed and disposed in accordance with the Contract Documents. Further information regarding the detail of installation of the wide flange beams and surrounding CDSM is contained in the Results of Prototype Test Program - Installation of Shoring Walls using the Cement Deep Soil Mixing Method document. This work item includes, but is not limited to, excavation, cutting, removing and the disposing of the existing wide flange beams. If any temporary shoring and/or supports specific to this work item are required, its cost shall be included. Removal of pipes for inclinometer and other incidental measuring parts for the Geotechnical Test Program of Shoring Wall shall be included in this item. The removal of the portion of the wide flange beams below required bottom of excavation is not required. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.

## 14. Removal and Disposal of Temporary Shoring Wall Installed by Existing Terminal and Ramps Demolition Contractor's Scope

Existing temporary shoring wall installed by Existing Terminal and Ramps Demolition Contractor at the eastside of Fremont Street shall be removed and disposed in accordance with the Contract Documents. This work item includes, but is not limited to, excavation, cutting, removing, and disposing the existing shoring wall. If any temporary shoring and/or supports specific to this work item are required, its cost shall be included. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.

## 15. Mass Excavation and Soil Disposal

Soils in the excavation area shall be excavated and disposed in accordance with the Contract Documents. Excavation sequence and coordination with Internal Bracings, Access Trestle and Temporary Bridges shall be planned in accordance with the Specification and Requirement for Internal Bracings, Access Trestle and Temporary Bridges. The Existing Terminal and Ramps Demolition Contractor will demolish the majority of the above grade structure in according with the plans and specifications of the Existing Terminal and Ramps Demolition Contract. The rest of the excavation including removal of recycled crushed concrete left by the Existing Terminal and Ramps Demolition Contractor used to bench walls and working platforms shall be included in this Package. Removing manmade debris in the excavated material, such as brick, concrete, pipe, cable, wood, steel hardware, abandoned utilities and others, and its disposal shall be included in this work item and is considered incidental to the work. Removing cement contaminated soil on the inside face of the Shoring Wall and its proper disposal shall be included in this work item. This work item includes, but is not limited to, excavation, and disposing of the excavated soils and incidental debris. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.

## 16. Soil Disposal Premium for Hazardous Material Class I

E... Additional costs (Premium) for the disposal for existing hazardous material categorized as Class I in addition to "Mass Excavation and Soil Disposal" and "Pre-Trenching and Back Filling for Shoring Wall" shall be included in this item. The contract amount paid for this item shall include full compensation for additional hauling and disposal premium for Class I hazardous material not covered by "Excavation and Soil Disposal" and "Pre-Trenching and Back Filling for Shoring Wall". Per the "MEMORANDUM - DRAFT Preliminary Estimate of Volume of Fill Material issued by Treadwell \& Rollo, Inc. dated on May 3, 2010" the bid quantity is 68,645 tons ( 42,903 cubic yards) The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item. $\underline{\underline{\boldsymbol{E}} \boldsymbol{E}}$

## 17. Soil Disposal Premium for Hazardous Material Class II

E... Additional costs (Premium) for the disposal for existing hazardous material categorized as Class II in addition to "Mass Excavation and Soil Disposal" and "Pre-Trenching and Back Filling for Shoring Wall" shall be included in this item. The contract amount paid for this item shall include full compensation for additional hauling and disposal premium for Class II hazardous material not covered by "Excavation and Soil Disposal" and "Pre-Trenching and Back Filling for Shoring Wall". Per the "MEMORANDUM - DRAFT Preliminary Estimate of Volume of Fill Material issued by Treadwell \& Rollo, Inc. dated on May 3, 2010" the bid quantity is 97,624 tons ( 61,015 cubic yards). The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item. ...E

## 18. Installation, Modification and Removal of Dewatering System

The installation, modification, and removal of the Dewatering System in the excavation area shall be implemented in accordance with the Contract Documents. The Trade Subcontractor will hire a dewatering subcontractor for the design, installation, maintenance, and removal of the required system. The Trade Subcontractor shall install a complete dewatering system, including but not limited to dewatering wells, dewatering well pumps, temporary sumps and sump pumps, piping, connections, sediment tanks, discharge to sewer, back-up generator system and discharge water meters. Temporary power might be available for the use of the dewatering system. Refer to the Attachment 2 for the temporary power detail. Trade Subcontractor shall anticipate relocation of
wells, tanks and pipes required to accommodate the Trade Subcontractor's construction plan. The design and the installation sequence shall be coordinated with Permanent Structure construction, Temporary Structures/Equipment by other Trade Subcontractors, Internal Bracings, Access Trestle, Temporary Bridges and other structures. Removing debris in the well locations, such as brick, concrete, pile, cable, wood, steel hardware and others, and its disposal shall be included in this work item and is considered incidental to the work. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item. The dewatering subcontractor will continue to provide dewatering service until receiving discontinue notice of the dewatering issued by TJPA, at which time Trade Subcontractor shall remove and legally dispose of the dewatering system.

## 19. Maintenance of Dewatering System

C... The maintenance of the Dewatering System shall be implemented in accordance with the Contract Documents. The Trade Subcontractor shall maintain the Dewatering System 24 hours a day, 7 days a week. When the system has leaking or broken pipes or other system failures, the system shall be repaired immediately. Spare pumps and pipes shall be on-hand in accordance with the Specifications. The maintenance of the Dewatering system shall continue until receiving discontinue notice of the dewatering issued by TJPA. This work item includes, but is not limited to, maintaining/repairing the Dewatering System, purchasing and maintaining required spare parts and back-up system. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, incidentals and other any other costs/fees necessary to complete this work item. Water discharging fee will be paid as the allowance item in Schedule of Bid Prices. ...C
20. Design, Installing, Re-shoring and Removal of Internal Bracings

The design, installation, maintenance, re-shoring and removal of Internal Bracings shall be implemented in accordance with the Contract Documents. The Trade Subcontractor shall design and install a complete Internal Bracing System including, but not limited to pin piles, walers, struts, strut preloading, secondary bracings, re-shoring members, and all necessary connection/supporting parts required until the permanent structure is installed and can support the retained loads. The Trade Subcontractor shall hire an experienced engineering design firm to design the Internal Bracing System, with the design signed and sealed by a professional engineer registered in the State of California for the appropriate engineering discipline. This system shall satisfy the Contract Documents for Internal Bracings. Monitoring of the internal bracing system shall be implemented in accordance with the Contract Documents. Preloading of each strut shall be in accordance with the Contract Documents. Installation, re-shoring and removal sequence shall be developed and coordinated with Concrete Trade Subcontractor, Structural Steel Trade Subcontractor and other Trade Subcontractors. Removal shall not interfere with the work of the Concrete and Structural Steel Trade Subcontractors. This work item includes, but is not limited to, designing, furnishing, cutting, welding, installing/re-shoring/disposing all required internal bracing systems. The contract amount paid for this item shall include full compensation for designing the Internal Bracing system and furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.

## 21. Design, Installation and Maintenance of Access Trestle

C... The design, installation, and maintenance of Access Trestle shall be implemented in coordination with other works as stipulation in the Contract Documents and Requirement for Access Trestle in Attachment 3. The Trade Subcontractor shall design and install a complete Access Trestle System including all necessary support piles, main beams, secondary beams, decking, bracings and all necessary connection/supporting parts. The Trade Subcontractor shall hire an experienced
engineering design firm to design the Access Trestle System, with the design signed and sealed by a professional engineer registered in the State of California for the appropriate engineering discipline. This system shall satisfy the Contract Documents and Requirement for Access Trestle in Attachment 3. Trade Subcontractor shall coordinate with other Trade Subcontractors so as not to interfere with other Trade Subcontractors' work or with the permanent structure. The contract amount paid for this item shall include full compensation for furnishing all design, labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item. ...C

## 22. Removal and Disposal of Access Trestle

D... The removal and disposal of Access Trestle shall be implemented in coordination with other works as stipulated in the Contract Documents and Requirement for Access Trestle in Attachment 3. The Trade Subcontractor shall remove the entire Access Trestle, with the exception of that portion above the top of the Lower Concourse slab. The Structural Steel Trade Subcontractor shall remove/dispose of the Access Trestle above the Lower Concourse slab. The Trade Subcontractor shall coordinate the timing of the remaining portion of the Access Trestle with the other Trade Subcontractors. This work item includes, but is not limited to, cutting, welding, removing/disposing all access trestle material. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item. $\underline{\underline{D} \boldsymbol{D}}$
23. Design, Installation and Maintenance of Temporary Bridge at First Street, Fremont Street, and Beale Street
$\underline{D . . .}$ The design, installation, modification and maintenance of Temporary Bridges shall be implemented in accordance with the Contract Documents. The Trade Subcontractor shall design and install all necessary Temporary Bridge System components including support piles, main beams, secondary beams, decking, bracings and all necessary connection/supporting parts and safety appurtenances. The Trade Subcontractor shall hire an experienced engineering design firm to design the Temporary Bridge System with the design signed and sealed by a professional engineer registered in the State of California for the appropriate engineering discipline, which satisfies the Contract Documents and Requirement for Access Trestle in Attachment 3. The design scope includes a monitoring and maintenance plan. The monitoring and maintenance shall be implemented in accordance with approved monitoring and maintenance plan. The installation and re-shoring sequence shall be developed and coordinated with utility relocations, below grade concrete construction sequences and other Trade Subcontractors work. This work item includes, but is not limited to, designing, furnishing, cutting, welding, installation/modification, monitoring, maintenance of the Temporary Bridges and supporting structures including street lighting at pedestrian walkways. The contract amount paid for this item shall include full compensation for the design and the furnishing of all, labor, materials, equipment, tools, transportation, disposal fees, supporting and hanging/un-hanging of existing utilities, incidentals and any other costs/fees necessary to complete this work item. $\underline{\boldsymbol{.} \boldsymbol{D}}$
24. Removal and Disposal of Temporary Bridge at First Street, Fremont Street and Beale Street

The removal and disposal of Temporary Bridge shall be implemented in accordance with the Contract Documents. The Trade Subcontractor shall plan the removal of the Temporary Bridge System including support piles, main beams, secondary beams, decking, bracings, traffic/pedestrian barricades, temporary street lighting, and all necessary connection/supporting parts, in accordance with the Contract Documents. The Trade Subcontractor shall coordinate the timing for the removal of the Temporary Bridge with the Trade Subcontractors of the Utility Relocations, the Below Grade Structure and Steel Structure Erection. Removal and/or relocation of utilities hung under the Temporary Bridges shall be coordinated with other Trade Subcontractors. The portion of the support
piles below the mat slab shall not be removed. This work item includes, but is not limited to, cutting, welding, removing/disposing of the Temporary Bridges and supporting structures. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.
25. Allowance: Muni OCS Work to Support Buttresses, Shoring and Excavation Work Refer to Specification Section 0110 20/APA - 2, item A.2, for the scope of work description.

## 26. Installation of Micropiles

D... The installation of Micropiles shall be implemented in accordance with the Contract Documents. The Trade Subcontractor shall plan its equipment locations and pads in accordance with the design of the Internal Bracing System. The tests of the Micropiles shall be implemented in accordance with the Contract Documents. The Trade Subcontractor shall coordinate with the Below Grade Structure construction by other Trade Subcontractors. This work item includes, but is not limited to, installing/removing equipment pad, furnishing, installing Micropiles, and disposing of excavated material. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item. $\ldots \boldsymbol{D}$

## 27. Mud/Rat Slab

The installation of Mud/Rat Slab shall be implemented in accordance with the Contract Documents. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fee, incidentals and any other costs/fees necessary to complete this work item.
E...
28. CDSM Buttress-Shoring Wall Connector Column Installation

The CDSM Connector Columns between the buttress and the shoring wall shall be constructed in accordance with the Contract Documents. Hazardous/High-PH material shall be disposed by following relevant regulations and its cost included in this work item. This work item includes, but is not limited to, preparing equipment pad, construction of CDSM Connector Columns, and disposal of material. The contract amount paid for this item shall include full compensation for furnishing all labor, materials, equipment, tools, transportation, disposal fees, incidentals and any other costs/fees necessary to complete this work item.
$\ldots$

## END OF SCOPE OF THE PACKAGE AND BID ITEM INFORMATION

## V. CONSTRUCTION SCHEDULE AND MILESTONES

$\underline{\text { D... Upon Notice of Award, the Trade Subcontractor shall submit a detailed Trade Package Progress }}$ CPM Schedule, based on Webcor/Obayashi’s scheduling conventions, outlining all lead times and tasks beginning from the date of NTP \#01 to projected completion of your work using Primavera P6. The Trade Subcontractor's Progress Schedule shall be submitted to the CM/GC within fifteen calendar days from Notice of Award. The Schedule shall be in accordance with but not limited to Specification Section 011310 Progress Schedule, the latest issued revision of the Transbay Transit Center Project Bidding Manual, and the Project Milestones listed below. If there is a conflict between the documents, the most stringent shall apply. Within the Trade Subcontractor's Schedule the Trade Subcontractor shall include a full submittal schedule per Specification Section 0113 00.1.4 Submittal Schedule. ...D
$\underline{\text { D... A concept schedule is provided for reference only (see Exhibit I). The concept schedule is to clarify }}$ preceding and succeeding activities to this Trade Package work, as approved by the TJPA for bidding.Assume schedule activities to occur plus or minus 90 calendar days from what is indicated in the Exhibit I BSE Concept Schedule.

The Trade Subcontractor's Schedule shall be sequenced so that it shall not impact any succeeding activities and/or the critical path of the project. The schedule activities in Exhibit I between the date of the Notice to Proceed and the Completion Date of each Zone should not be assumed to be complete or a binding work plan. However, it is mandatory that each Completion Date be met so as not to impact follow-on Trade Subcontractors or the Critical Path of the Project. The Trade Subcontractor is responsible to include all scope within the IFB documents while adhering to the durations provided in the Milestones below. Within 24 hours of a breakdown or failure, this Trade Subcontractor will be required to replace or repair any piece of its equipment or materials working on a critical path activity. Failure to do so will result in Liquidated Damages being withheld from future payments until any lost time is recovered. ... $\boldsymbol{D}$

The Trade Subcontractor's Schedule shall include but is not limited to the following Milestones and activities:

- Distinct Start Milestone and distinct Finish Milestone for the Work in each Zone.
- E... Distinct Finish Milestone of excavation for each Zone for the coordination with geothermal and electrical activities required before the placement of the rat slab. The Trade Subcontractor shall allow 20 working days for geothermal and electrical activities in each zone. The Trade Subcontractor understands these activities and durations are to be included in the Trade Subcontractor's schedule. In addition, this Trade Subcontractor shall be responsible for protecting and not damaging the work installed by other Subcontractors. ...E
- Distinct Start Milestone and distinct Finish Milestone for installation for traffic bridges at First, Fremont, and Beale Streets. Include activity details for the traffic bridges for coordination with other trades that this Trade Subcontractor will be required to manage.
- Activities for the removal of traffic bridges.
- Activities for the removal of bracing, rebracing, and rebracing removal.
- Activities for the removal of trestle components below the concourse level.

The Trade Subcontractor shall utilize a WBS and Activity ID convention to allow the Trade Package Progress Schedule to be implemented in the CM/GC's Master Schedule. Activity ID numbers shall be alphanumeric using "PS" (submittals and procurement) and "SX" (construction activities) as prefixes and a six digit alphanumeric suffix (Example: SX-A100000). The Trade Subcontractor shall structure their Trade Package Progress Schedule utilizing the following WBS at the highest level but not limited to:

- PROCUREMENT (Submittal Schedule \& Materials Procurement)
- BUTTRESS/SHORING/EXCAVATION
o ZONE 1
o ZONE 2
o ZONE 3
o ZONE 4
The Trade Subcontractor shall meet with the CM/GC to review the Trade Subcontractor's Schedule. If necessary, the Trade Subcontractor shall provide a revised Schedule that is acceptable to the CM/GC, which shall be implemented into the CM/GC's Master Schedule. The Trade Subcontractor is to include any and all costs in its proposal that are required to meet the Completion Milestones as noted below. No progress payments will be due to this Trade Subcontractor until acceptance of the Trade Subcontractor's schedule submittal by both the CM/GC and TJPA.


## Milestones:

## NTP \#01: Submittals and Procurement

C... The CM/GC will provide the Trade Subcontractor with NTP \#01 to commence with submittals and procurement. At the time of NTP \#01, the Trade Subcontractor shall immediately begin the submittal and procurement activities required to meet the Trade Subcontractor's Baseline Schedule. The submittal schedule for all submittals is to be provided to the CM/GC within 10 days of NTP\#01. ...C

## NTP \#02: Zone 4

E... $\underline{\text { D... }}$ The CM/GC will provide NTP \#02 to commence work in Zone 4. The Trade Subcontractor must be complete with ALL activities including the rat slab in Zone 4 within 1,075 calendar days from the date of NTP \#02. At the time of NTP\#02 the Trade Subcontractor assumes responsibility for Zone 4 for the security, safety and all liability for Zone 4 in accordance with the entire set of plans and specifications and the Trade Subcontract. NTP 2/Zone 4 will be issued no later than 120 calendar days from the issuance of NTP $1 . \underline{\boldsymbol{D}} \ldots \boldsymbol{\ldots}$

## NTP \#03: Zone 1

E... The CM/GC will provide NTP\#03 to commence work in Zone 1. NTP \#03 will be issued no later than 175 calendar days from the time of NTP \#02. At the time of NTP \#03 the Trade Subcontractor assumes responsibility for Zone 1 for the security, safety and all liability associated for Zone 1 in accordance with the entire set of plans and specifications and the Trade Subcontract. The Trade Subcontractor must be complete with ALL activities including the rat slab in Zone 1 within 570 calendar days from NTP \#03. ...E

## NTP \#04: Zone 2

E... The CM/GC will provide NTP\#04 to commence work in Zone 2. NTP \#04 will be issued no later than 235 calendar days from the time of NTP \#02. At the time of NTP \#04 the Trade Subcontractor assumes responsibility for Zone 2 for the security, safety and all liability associated for Zone 2 in accordance with the entire set of plans and specifications and the Trade Subcontract. The Trade Subcontractor must complete ALL activities including the rat slab in Zone 2 within 570 calendar days from NTP \#04. ...E

## NTP \#05: Zone 3

E... The CM/GC will provide NTP\#05 to commence work in Zone 3. NTP \#05 will be issued no later than 265 calendar days from the time of NTP \#02. At the time of NTP \#05 the Trade Subcontractor assumes responsibility for Zone 3 for the security, safety and all liability for Zone 3 in accordance with
the entire set of plans and specifications and the Trade Subcontract. The Trade Subcontractor must complete ALL activities including the rat slab in Zone 3 within 535 calendar days from NTP \#05. ... $\boldsymbol{E}$

## NTP \#06: Shoring Bracing Removal

E... The CM/GC will provide NTP \#06 to the Trade Subcontractor for removal of shoring bracing, rebracing, and removal of rebracing. The Trade Subcontractor shall begin the removal of shoring bracing within 30 calendar days of notification. The removal of cross shoring bracing, rebracing, and the removal of rebracing shall be coordinated with the Below Grade Trade Subcontractor and shall not impede the progress of the Below Grade construction activities. ... $\boldsymbol{E}$

## NTP \#07: Trestle Removal

E... The CM/GC will provide NTP \#07 to the Trade Subcontractor for the removal of the trestle. The Trade Subcontractor shall begin the removal of the trestle below the concourse level, within 30 calendar days of notification. The removal of trestle steel shall be coordinated with the Superstructure Trade Subcontractor and shall not impede the progress of the Superstructure construction activities. $\underline{\ldots \boldsymbol{E}}$

## NTP \#08: Traffic Bridge Removal at First Street

E... The CM/GC will provide NTP \#08 to the Trade Subcontractor for the removal of the traffic bridge at First Street. The Trade Subcontractor shall complete the removal of the traffic bridge at First Street within 45 calendar days of NTP \#08. $\underline{\text {... } \boldsymbol{E}}$

## NTP \#09: Traffic Bridge Removal at Fremont Street

E... The CM/GC will provide NTP \#09 to the Trade Subcontractor for the removal of the traffic bridge at Fremont Street. The Trade Subcontractor shall complete the removal of the traffic bridge at Fremont Street within 45 calendar days of NTP \#09. ... $\boldsymbol{E}$

## NTP \#10: Traffic Bridge Removal at Beale Street

E... The CM/GC will provide NTP \#10 to the Trade Subcontractor for the removal of the traffic bridge at Beale Street. The Trade Subcontractor shall complete the removal of the traffic bridge at Beale Street within 45 calendar days of NTP \#10. ... $\boldsymbol{E}$
D... Trade Subcontractor shall have responsibilities for the liquidated damages specified in the Specification 000520 and the CM/GC and affected other Trade Subcontractors extended costs when Trade Subcontractor delays the above required milestones and/or project critical path. $\boldsymbol{\underline { \boldsymbol { D } } \boldsymbol { \boldsymbol { D } }}$
$\underline{E}$... Trade Subcontractor shall include all work for this Trade Package including all issued addendum in the bid price to meet the Milestone Requirements. ...E

## END OF CONSTRUCTION SCHEDULE AND MILESTONES

## VI. INSURANCE REQUIREMENT

D... The insurance requirements outlined below supersede the related requirements in the Specification Section 000520 and Section 16 of the Long Form Subcontract. ...D

## 1. TRADE SUBCONTRACTOR'S LIABILITY INSURANCE

$\underline{\boldsymbol{E} . .}$ Trade Subcontractor shall maintain in full force and effect, for the period covered by theSubcontract, the following liability insurance with the following minimum specified coverages or coverages as required by laws and regulations, whichever is greater: $\ldots \boldsymbol{E}$
A. Workers' Compensation in the statutory amount, including Employers' Liability coverage with limits not less than $\$ 1,000,000$ each accident, injury, or illness, including coverage for U.S. Long Shore and Harbor Workers' Act benefits, and Jones Act benefits, and Federal Employers Liability Act.
B. D... Commercial General Liability insurance with limits not less than $\$ 100,000,000$ each occurrence combined single limit for bodily injury and property damage, including coverage for Contractual Liability, Independent Contractors, Explosion, Collapse, and Underground (XCU), Personal Injury, Broadform Property Damages, and completed operations. Notwithstanding Section 16.7 of the Long Form Subcontract, the requirement to maintain $\$ 100,000,000$ in Commercial General Liability Insurance shall apply ONLY to the bidding Trade Subcontractor. Sub-subcontractors / Lower-Tier Subcontractors shall maintain the levels of Commercial General Liability Insurance set forth in Section 16 of the Long Form Subcontract agreement. ... $\boldsymbol{D}$
C. Commercial Automobile Liability insurance with limits not less than $\$ 1,000,000$ each occurrence combined single limit for bodily injury and property damage, including owned, hired or non-owned vehicles, as applicable.

## 2. ADDITIONAL COVERAGES

A. $\underline{\boldsymbol{D} . . .}$ Professional Liability Insurance: In the event that Trade Subcontractor employs professional engineer(s) or land surveyor(s) for performing Pre-Construction Services, field engineering, or preparing design calculations, plans and specifications, Trade Subcontractor shall carry or shall require its retained engineers and land surveyors to carry professional liability insurance with limits not less than $\$ 25,000,000$ each claim with respect to acts, errors, or omissions in connection with professional services to be provided under this Contract, with any deductible not to exceed \$250,000 each claim. With respect to land surveyors only, the Trade Subcontractor or its retained engineers should only have to evidence $\$ 1,000,000$ in professional liability insurance covering that scope of work, consistent with the standard requirements set forth in Article 16 of the Long Form Subcontract. ... $\boldsymbol{D}$
B. D... Environmental Pollution Liability Insurance: The Trade Subcontractor, or its Subsubcontractors, who perform abatement of hazardous or contaminated materials removal shall maintain in force, through the term of this Contract, Trade Subcontractor's pollution liability insurance with limits not less than $\$ 5,000,000$ each occurrence combined single
limit (true occurrence form), including coverages for on-site or off-site third party claims for bodily injury and property damage. $\boldsymbol{\ldots} \boldsymbol{D}$

## 3. INSURANCE FOR OTHERS

For general liability, environmental pollution liability and automobile liability Trade Subcontractor shall include as additional insured, the Contractor, TJPA, its board members and commissions, and all authorized agents and representatives, and members, directors, officers, trustees, agents and employees of any of them.

## 4. FORMS OF POLICIES AND OTHER INSURANCE REQUIREMENTS

A. Workers' Compensation Insurance shall be submitted to the Contractor before the commencement of any of the Work on Site.
B. C... Before commencement of the Work of this Contract, certificates of insurance in form and with insurers acceptable to Contractor, evidencing all required insurance and with proper endorsements from Trade Subcontractor's insurance carrier identifying as additional insureds the parties indicated under Article 1.4 above, shall be furnished to Contractor with complete copies of policies in accordance with the Project Bidding Manual....C
C. Approval of the insurance by the Contractor shall not relieve or decrease the extent to which Trade Subcontractor or subcontractors of any tier may be held responsible for payment of any and all damages resulting from its operations. All policies of insurance and certificates shall be satisfactory to Contractor.
D. The Trade Subcontractor and its Subcontractors shall comply with the provisions of California Labor Code section 3700. Prior to commencing the performance of work, the Trade Subcontractor and all of its Subcontractors shall submit to the Contractor a certificate of insurance evidencing liability for workers compensation or proof of selfinsurance in accordance with the provisions of the California Labor Code.
E. Liability insurance, except for professional liability insurance, shall be on an occurrence basis, and said insurance shall provide that the coverage afforded thereby shall be primary coverage (and non-contributory to any other existing valid and collectable insurance) to the full limit of liability stated in the declaration, and such insurance shall apply separately to each insured against whom claim is made or suit is brought, but the inclusion of more than one insured shall not operate to increase the insurer's limits of liability.
F. C... Trade Subcontractor shall maintain professional liability coverage continuously throughout the term of this Contract, and without lapse, for a period 3 years beyond the Contract Final Completion date to the effect that should occurrences during the Contract term give rise to claims made after expiration of the Contract, such claims shall be covered by such claims-made policies. ...C
G. Each such policy shall provide that no cancellation or non-renewal shall occur without the carrier giving to Contractor at least 30 days' written notice prior thereto.

All notices shall be made to:
Webcor / Obayashi Joint Venture
951 Mariners Island Blvd, $7^{\text {th }}$ Floor
San Mateo, CA 94404
H. Trade Subcontractor, upon notification of receipt by Contractor of any such notice, shall provide Contractor a certificate of the required new or renewed policy at least 10 days before the effective date of such cancellation, change or expiration, with a complete copy of new or renewed policy, if requested.
I. If, at any time during the life of this Contract, Trade Subcontractor fails to maintain any item of the required insurance in full force and effect, all Work of this Contract may, at Contractor's sole option, be discontinued immediately, and all Contract payments due or that become due will be withheld until notice is received by the Contractor as provided in the immediately preceding Paragraph 1.5 G that such insurance has been restored to full force and effect and that the premiums thereof have been paid for a period satisfactory to the Contractor.
K. Any failure to maintain any item of the required insurance may, at Contractor's sole option, be sufficient cause for termination for default of this Contract.

## 5. QUALIFICATIONS

C... Trade Subcontractor must provide coverage from insurance companies who shall be legally authorized to engage in the business of furnishing insurance in the State of California. All insurance companies shall have a current A.M. Best Rating not less than "A-, VIII" and shall be satisfactory to Contractor. ... $\boldsymbol{C}$

## END OF INSURANCE REQUIREMENT

## VII. PACKAGE BOUNDARY REFERENCE SHEET

This reference sheet is to assist in the identification of the boundary with other package scopes. The listing below is not necessarily complete or comprehensive. The Trade Subcontractor shall coordinate with other Trade Subcontractors even if primary responsibilities for the following work items are included in other trade Subcontractors or TJPA.

| Item | $\begin{aligned} & \hline \text { TG03 } \\ & \text { BSE } \end{aligned}$ | TG04 <br> Utility Relocation | TG06 <br> Below Grade Concrete | Others |
| :---: | :---: | :---: | :---: | :---: |
| General Work |  |  |  |  |
| D... General Survey for Project wide Control ...D |  |  |  | $\underline{\text { D... }}$...D |
| Survey for each package work | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Pedestrian Protection for each package level/area | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Traffic/Pedestrian Barricades around the Project Site | $\checkmark$ |  |  |  |
| Temporary Toilets for each package labor/personnel use | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Trash Cans for each package labor/personnel use | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Traffic Control/Gate Control for Project wide | $\checkmark$ |  |  |  |
| Traffic Control/Gate Control for each package level/area | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Safety for each package level/area | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Clean up for each package level/area | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Weather Mitigation for each package level/area | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Temporary Manlifts /Ladders /Stairs for Below Grade Access (Installation, maintain, power supply, relocation and Removal) | $\checkmark$ |  |  |  |
| Crane and Operators for each package level/area | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
|  |  |  |  |  |
| Utilities |  |  |  |  |
| Existing underground utility relocation |  | $\checkmark$ |  |  |


| Item | $\begin{aligned} & \text { TG03 } \\ & \text { BSE } \end{aligned}$ | TG04 <br> Utility Relocation | TG06 <br> Below Grade Concrete | Others |
| :---: | :---: | :---: | :---: | :---: |
| Utility relocation under Temporary Bridge |  | $\checkmark$ |  |  |
| Hanging underground utility from Temporary Bridge | $\checkmark$ |  |  |  |
| Making voids for utility lines on shoring wall | $\checkmark$ |  |  |  |
| Include utility line loads into Temporary Bridge Design | $\checkmark$ |  |  |  |
| Protect utility lines for existing structure removal/shoring wall construction | $\checkmark$ |  |  |  |
| Construction |  |  |  |  |
| Finish excavation final surface | $\checkmark$ |  |  |  |
| Install Micropile Anchors | $\checkmark$ |  |  |  |
| Install Geo Thermal Pipe |  |  |  | Other Trade Subcontractor |
| Install Ground Rods below Mat Slab |  |  |  | Other Trade Subcontractor |
| Place Mud Slab at the bottom of excavation | $\checkmark$ |  |  |  |
| Installation of waterproofing |  |  | $\checkmark$ |  |
| Installation of the protection slab over the invert waterproofing |  |  | $\checkmark$ |  |
| Removal/Re-shoring of Internal Bracing | $\checkmark$ |  |  |  |
| D... Furnish/Install anchor bolts/hardware in concrete structure for Internal Bracings ...D | $\checkmark$ |  |  |  |
| Patch anchor holes for Internal Bracings |  |  | $\checkmark$ |  |
| Remove/Dispose Access Trestle above top of the lower concourse slab |  |  |  | Other Trade Subcontractor |
| Remove/Dispose the Rest of Access Trestle | $\checkmark$ |  |  |  |
| Remove/Dispose Temporary Bridge | $\checkmark$ |  |  |  |
| Remove/Dispose Dewatering System | $\checkmark$ |  |  |  |
| $\begin{aligned} & \frac{G \ldots \text { EXHIBIT A - Rev G }}{11 / 3 / 2010 \ldots G} \end{aligned}$ |  |  |  |  |


| Item | TG03 <br> BSE | TG04 <br> Utility <br> Relocation | TG06 <br> Below Grade <br> Concrete | Others |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Patch holes for Pin <br> Piles/Dewatering Pipes |  |  | $\sqrt{ }$ |  |
| Install Waterproofing for <br> Micropiles |  |  | $V$ |  |
| Install Waterproofing for <br> Pin Piles/Dewatering <br> Pipes |  |  | $V$ |  |

## END OF PACKAGE BOUNDARY REFERENCE SHEET

D...

## VIII. CONTRACT DOCUMENT LIST

The Contract Documents for this Trade Package include followings:
G... F... E...

| Document Name | Description | Revision Name | Issue Date |
| :---: | :---: | :---: | :---: |
| Long Form Subcontract |  | Rev. $\mp \mathbf{G}$ for <br> Addendum No. 67 | 11/411/3/2010 |
| Specifications | Defined in Specification Section 0001 10 | Revision for Addendum No. 67 | 10/2911/1/2010 |
| Drawings | Defined in Specification Section 0001 15 | Rev. E for Addendum No. 5 | 10/25/2010 |
| Project Bidding Manual |  | Rev. E for Addendum No. 5 | 10/29/2010 |
| Exhibit A | Trade Subcontractor Bid Package Manual and Forms - Contract \#301000300 | Rev. $\mp \mathbf{G}$ for <br> Addendum No. 67 | 11/411/3/2010 |
| Exhibit B | Warranty | Rev. D for Addendum No. 3 | 9/2010 |
| Exhibit C | Lien Releases | Issued For Bid TG03 | 7/30/2010 |
| Exhibit D | Sample Certificate of insurance and Additional Insured Endorsement | Issued For Bid TG03 | 7/30/2010 |
| Exhibit E | LEED Subcontractor Submission Letter and Data Sheet | Issued For Bid TG03 | 7/30/2010 |
| Exhibit F | BIM Breakdown Sheet | $\begin{aligned} & \hline \text { Issued For Bid } \\ & \text { TG03 } \\ & \hline \end{aligned}$ | 7/30/2010 |
| Exhibit G | Subcontractor Payment Requisition | Issued For Bid TG03 | 7/30/2010 |
| Exhibit H | Site Specific Safety Plan | Issued For Bid TG03 | 7/30/2010 |
| Exhibit I | BSE Concept Schedule | Rev. D for Addendum No. 3 | 9/23/2010 |
| Transmittal No. 140-00186 | BSE (TG03) Issued for Bid, Addendum 6, 10-28-2010 |  | 10/28/2010 |
| Questions \& Answers $\# 1$ | TG03 Questions Answers \#1 |  | 8/23/2010 |
| Questions \& Answers \#2 | TG03 Questions Answers \#2 |  | 8/30/2010 |
| Questions \& Answers \#3 | TG03 BSE - Bidder Q\&A Response Set No. 3 |  | 9/8/2010 |
| Questions \& Answers \#4 | TG03 BSE - Bidder Q\&A Response Set No. 4 |  | 9/10/2010 |
| Questions \& Answers \#5 | TG03 BSE - Bidder Q\&A Response Set No. 5 |  | 9/17/2010 |
| Questions \& Answers \#6 | TG03 BSE - Bidder Q\&A Response Set No. 6 |  | 9/24/2010 |
| $\begin{aligned} & \text { Questions \& Answers } \\ & \text { \#7 } \end{aligned}$ | TG03 BSE - Bidder Q\&A Response Set No. 7 |  | 10/5/2010 |


| Document Name | Description | Revision Name | Issue Date |
| :--- | :--- | :--- | :--- |
| Questions \& Answers <br> \#8 | TG03 BSE - Bidder Q\&A Response Set <br> No. 8 |  | $10 / 8 / 2010$ |
| Questions \& Answers <br> \#9 | TG03 BSE - Bidder Q\&A Response Set <br> No. 9 |  | $10 / 15 / 2010$ |
| Questions \& Answers <br> $\# 10$ | TG03 BSE - Bidder Q\&A Response Set <br> No. 10 |  | $10 / 27 / 2010$ |

$\ldots . . \ldots F \ldots$

## END OF CONTRACT DOCUMENT LIST ...D

## ATTACHMENT 1 C... BID FORM AND SCHEDULE OF BID PRICES ...C

## TO THE TJPA EXECUTIVE DIRECTOR

In response to the Advertisement for Bids for the following public work:

## TG03 Shoring; Buttress; Internal Bracing; Access Trestle, Temporary Bridge; Excavation; Demolition; Dewatering; and Micropiles (BSE)

The undersigned Bidder hereby proposes and agrees to execute the required contract, shall it be awarded to said Bidder, and to do all the work and furnish all the materials therefor, all in accordance with the Specifications and Drawings referred to in said Advertisement for Bids and at the prices named in the attached Schedule of Bid Prices.
C... The undersigned declares: That it is the Bidder (or by holding the position below indicated is authorized to execute this Bid Form on behalf of the Bidder); that said Bidder submits this Bid; that said Bidder has not, nor have any of its agents, officers, representatives or employees, been guilty of collusion with any officer or representative of Webcor/Obayashi or the TJPA, or with any other party or parties in the submission of this Bid; nor has said Bidder received any preferential treatment by any officer or employee of Webcor/Obayashi or the TJPA in the making or submitting of this Bid. The undersigned declares under penalty of perjury that all representations made on this Bid Form are true and correct. ... $\boldsymbol{C}$

Executed on 20 $\qquad$

Telephone Number
Name of Firm or Corporation

Bidder or Authorized Representative

Position in Firm or Corporation
S.F. Business Tax Registration

Address of Firm or Corporation Zip Code
Certificate Number
Contractor's California License No.: $\qquad$
License Expiration Date: $\qquad$
BOND OR CHECK REQUIRED: There is herewith attached, as required by law, bid security in accordance with Project Bidding Manual.

NONDISCRIMINATION IN CONTRACTS AND SMALL BUSINESS ENTERPRISE PROGRAM:
Provisions of chapter 12B (including its implementing Rules and Regulations) of the San Francisco Administrative Code, and the TJPA Small Business Enterprise Program are incorporated herein and by reference made a part of the Bid Sections as though fully set forth. The Bidder and all lower-tier Subcontractors and suppliers shall comply with these provisions and shall submit all required sections in a timely manner. All Bidders are required, and lower-tier Subcontractor and suppliers are strongly encouraged to take part in pre-bid and pre-award conferences.

## SCHEDULE OF BID PRICES

## TG03 Shoring, Internal Bracing, Access Trestle, Temporary Bridge, Excavation, Demolition, Dewatering, and Micropiles (BSE)

## Name of Bidder:

$\qquad$

The undersigned, having examined all referenced documents and the Drawings, understanding the terms and conditions of the Contract Documents and the local conditions affecting the performance and costs of the Work, and having fully inspected the Site in all its particulars, hereby proposes and agrees to fully perform the Work as indicated on the Drawings and in accordance with the requirements of the Contract Documents within the time stated therein, and for the following price(s):
E... D... C...

| No. | Uniformat Code | Master Format Code | $\begin{gathered} \hline \text { Sec } \\ \text { IV } \\ \text { Info. } \end{gathered}$ | Item Description | Unit of Measure | $\begin{gathered} \text { Est. } \\ \text { Quantity } \end{gathered}$ | Bid Rate per Quantity | Bid Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{aligned} & \hline \text { A1020 } \\ & \text { A2010 } \\ & \text { F2010 } \\ & \text { Z1030 } \\ & \hline \end{aligned}$ | 011505 | C1 | Mobilization for NTP\#2 | LS | Lump Sum | Lump Sum |  |
| 2 | A2010.35 | 312333 | C2 | Pre-Trenching and Back Filling for Shoring Wall | LS | Lump <br> Sum | Lump <br> Sum |  |
| 3 | F2010.20 | 024119 | C3 | Removal and Disposal of Existing Tie-back Anchors for Adjacent Properties | LS | Lump Sum | Lump Sum |  |
| 4 | F2010.20 | 024119 | C4 | Existing Reinforced Concrete Structure Removal and Disposal Prior to Installing Shoring Wall | LS | Lump <br> Sum | Lump <br> Sum |  |
| 5 | F2010.20 | 024119 | C5 | Existing Wooden Pile Removal and Disposal Prior to Installing Buttress at Buttress Area Including Timber Pile Removal Test Program | LS | Lump Sum | Lump Sum |  |
| 6 | F2010.20 | 024119 | C5 | Existing Wooden Pile Removal and Disposal Prior to Installing Shoring Wall | LS | Lump Sum | Lump Sum |  |
| 7 | F2010.20 | 024119 | C6 | Existing Concrete Pile Removal and Disposal Prior to Installing Shoring Wall | LS | $\begin{aligned} & \text { Lump } \\ & \text { Sum } \end{aligned}$ | $\begin{aligned} & \text { Lump } \\ & \text { Sum } \end{aligned}$ |  |
| 8 | F2010.20 | 024119 | C7 | 80 Natoma Shoring Wall Soldier Pile Removal and Disposal Prior to Installing Shoring Wall | LS | Lump Sum | Lump <br> Sum |  |
| 9 | F2010.20 | 024119 | C8 | 80 Natoma Pile Removal and Disposal Prior to Installing Shoring Wall | LS | Lump Sum | $\underset{\substack{\text { Lump } \\ \text { Sum }}}{ }$ |  |
| 10 | A2010.35 | 315613 | C10 | Shoring Wall Construction (Cut Off Wall for Zoning) | LS | Lump <br> Sum | Lump <br> Sum |  |
| 11 | A1020.35 | 316329 | C28 | CDSM Buttress-Shoring Wall Connector Column Installation | LS | $\begin{aligned} & \text { Lump } \\ & \text { Sum } \end{aligned}$ | Lump <br> Sum |  |
| 12 | F2010.20 | 024119 | C4 | Existing Reinforced Concrete Structure Removal and Disposal During Mass Excavation | LS | Lump Sum | Lump Sum |  |
| 13 | F2010.20 | 024119 | C5 | Existing Wooden Pile Removal and Disposal During Mass Excavation | LS | $\begin{aligned} & \text { Lump } \\ & \text { Sum } \end{aligned}$ | Lump Sum |  |


| No. | Uniformat <br> Code | Master <br> Format <br> Code | Sec <br> IV <br> Info. | Item Description | Unit of <br> Measure | Est. <br> Quantity | Bid Rate <br> Quantity |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 14 | F2010.20 | 02419 | C6 | Existing Concrete Pile Removal and Disposal <br> During Mass Excavation | LS | Lump <br> Sum | Lump |
| Sum |  |  |  |  |  |  |  |

G... EXHIBIT A - Rev G

11/3/2010 ... $G$

A1-3

| No. | Uniformat Code | Master Format Code | Sec <br> .IV <br> Info. | Item Description | Unit of Measure | Est. Quantity | Bid Rate per Quantity | Bid Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34 | A1020.35 | 316329 | C11 | Buttress Drilled Primary Shafts Installation | LF | 13,737 |  |  |
| 35 | A1020.35 | 316329 | C11 | Buttress Drilled Secondary Shafts Installation | LF | 10,845 |  |  |
| 36 | A1020.35 | 316329 | C11 | Buttress Drilled Secondary Shafts with Reinforced Rebar Installation | LF | 7,953 |  |  |
| 37 | A2010.10 | 312316 | C16 | Soil Disposal Premium for Hazardous Material Class I | TON | 68,645 |  |  |
| 38 | A2010.10 | 312316 | C17 | Soil Disposal Premium for Hazardous Material Class II | TON | 97,624 |  |  |
| 39 | A2010.50 | 312319 | C19 | Maintenance of Dewatering System | MOS | 72 |  |  |
| 40 | A1020.36 | 316333 | C26 | Installation of Micropiles (90ft Long) | EA | 870 |  |  |
| 41 | A1020.36 | 316333 | C26 | Installation of Micropiles (110ft Long) | EA | 930 |  |  |
| 42 | Z1030.41 | 015313 | C25 | Allowance: Muni OCS Work to Support Buttresses, Shoring and Excavation Work | LS | Allowance | Allowance | 500,000 |
| 43 | A2010.50 | 312319 | C19 | Allowance: Water Discharge Fee for Dewatering Operation | LS | Allowance | Allowance | 2,000,000 |
| Grand Total Bid Price |  |  |  |  |  |  |  |  |

## $\ldots .$.

The Bidder shall furnish a price for all Bid items in the Bid Schedule and failure to do so will render the Bid as non-responsive and will be cause for its rejection. In determining the successful Bidder, only the total of all Bid items will be considered. No award will be made based on individual bid items.

In case of discrepancy between the sum of Bid item amounts and the Grand Total Bid Price, the sum of said amounts shall prevail.

In case of discrepancy between words and figures, the words shall prevail.

Bidder acknowledges and agrees that this Bid, if not withdrawn prior to the scheduled time for receipt of Bids, shall not be withdrawn for a period of 90 days thereafter.

Grand Total Bid Price: \$
(from Total of SCHEDULE OF BID PRICES)
In Written Words: $\qquad$
$\qquad$
$\qquad$

Bid submitted by:

Name of Firm, Corporation, Partnership or Joint Venture

Names of All Partners, if Partnership

Signature of Bidder or Authorized Representative

State of Incorporation, if Corporation

Date of Bid

## Name and Title of Authorized Representative

Note: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership. A corporate authority document which indicates individual is authorized to execute bid documents on behalf of the Firm, Corporation, Partnership or Joint Venture shall be attached.

## C... END OF BID FORM AND SCHEDULE OF BID PRICES ...C

## ATTACHMENT 2 LOGISTICS

The following attached drawings present the conceptual logistical plan for the TG03 scope of work:
E... D... SL-001 Site Logistics Shoring/Buttress Phase, Revision date October 20, 2010 ... $\boldsymbol{D}$... $\boldsymbol{E}$

SL-002 Site Logistics Truck Routing, Revision date July 30, 2010
SL-003 Site Logistics Temp Power Plan, Revision date July 30, 2010
E...SL-004 Site Logistics Construction Zones, Revision date October 20, 2010 ... $\boldsymbol{E}$

SL-005 Site Logistics Utilities Packages, Revision date July 30, 2010
SL-006 Site Logistics Trestle 3-D Rendering, Revision date July 30, 2010
E...

SL-009 Site Lane Widths - Project Site, Revision date October 20, 2010
SL-010 Site Lane Widths - Fremont St. \& Natoma St. @400 Howard St., Revision date October 20, 2010
SL-011 Site Lane Widths - Natoma St. @400 Howard St., Revision date October 20, 2010
SL-012 Site Lane Widths - First St. \& Natoma St. @400 Howard St., Revision date October
20, 2010
SL-013 Site Lane Widths - First St. \& Natoma St. @500 Howard St., Revision date October 20, 2010
SL-014 Site Lane Widths - Natoma St. @500 Howard St., Revision date October 20, 2010
SL-015 Site Lane Widths - Natoma St. @500 Howard St. West End, Revision date October 20, 2010
SL-017 Site Lane Widths - First St. \& Minna St. @101 First St., Revision date October 20, 2010
SL-018 Site Lane Widths - Minna St. @515-521 Mission St., Revision date October 20, 2010
SL-019 Site Lane Widths - Shaw Alley \& Minna St., Revision date October 20, 2010
SL-020 Site Lane Widths - Minna St. @555 Mission St., Revision date October 20, 2010
SL-021 Site Lane Widths - Minna St. West End, Revision date October 20, 2010

## END OF LOGISTICS













|  |  |  |  |  |  |  |  |  |  |  | $\underset{\underset{\sim}{\sigma}}{\underset{\sim}{\sigma}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |







FIRST ST.



$\begin{array}{cl}\text { (SL-014 } & \text { Section Natoma St. @ } \\ \text { Not to SCALE }\end{array}$







## ATTACHMENT 3 ACCESS TRESTLE CRITERIA

## General

The Access Trestle shall be designed according to the requirements of the Specifications, the Drawings, and as described in this Attachment.

Access Trestle submittal requirements shall be the same as those for the Internal Bracing and Temporary Bridges scope. For the design criteria for the Access Trestle, the Contract Document and applicable standard shall be referred to. All requirements in the Temporary Bridges Specification in the Contract Documents, SECTION 0153 13, shall apply to the Access Trestle.

Trade Subcontractor shall coordinate the Access Trestle with internal bracing, temporary bridges, utility relocation, shoring walls, and permanent constructions. If the Access Trestle is connected to or intended to service design loads from the internal bracing, Temporary Bridges, or other temporary construction elements, then all of such elements shall be considered in a single comprehensive design calculation and shown together on the same set of construction documents prepared by a single Engineer of Record for all elements.
C... Trade Subcontractor shall provide the Access Trestle to other Trade Subcontractors for their access to complete their work. Trade Subcontractor shall coordinate with other Trade Subcontractors for their schedule of access. ...C

The Access Trestle shall not be connected to the shoring wall or any portion of the permanent structure without the approval of the Engineer of Record for each element being connected to.

## Design Load Criteria for Equipment on the Access Trestle

1. Design Crane Load

- Manitowoc 999 Series 2 shall be considered as design crane load.
(Followings are reference only. The latest information from manufacturer shall be used.)
Body Weight 184,600 LB + Counterweight 44,000 LB + 250 ft Boom (\#22EL)
Maximum Load on Hook 25,000 LB with Picking Radius 100 ft and critical swing angle
- The crane load shall be considered at any locations on the Access Trestle.

2. Design Truck Load

- 10cy Capacity Standard Concrete Mixer Truck with full load of concrete fully covering the Access Trestle decking shall be considered as design truck load.
- Maximum truck running design speed on the Access Trestle shall be 10 mph .

3. Design Concrete Pump Load

- Schwing Model: "S 42 SX" shall be considered as design concrete pump load.
- Maximum outrigger load with full boom extension during the pumping operation shall be considered for the Access Trestle Design.
- The point load of the outrigger shall be considered at any locations on the Access Trestle.

4. Other Requirement for Load

- Soil Material shall not be stored directly on the Access Trestle at anytime. When storing soil material is required, provide containments for the soil material to prevent soil contamination from spreading out on/under the Access Trestle.
- Any material, such as rebar, structural steel and concrete forms, shall not be stored on the Access Trestle at anytime and shall not to obstruct any other work/traffic that might be carried out by other Trade Subcontractors.
- If additional material and/or equipment load is required on the Access Trestle, it shall be designed accordingly.


## Minimum Required Access Trestle Deck Area and Locations

1. West End Access: From 165 feet east from west end of shoring wall (grid line 5) at center of the excavation area (grid line E) to the south end of the excavation area with 48 feet wide between wheel stops.
2. Natoma Access: From 460 feet east from west end of shoring wall (grid line 11.5) at center of the excavation area (grid line E) to the south end of the excavation area at grid line 10 with 32 feet wide between wheel stops.
3. Zone 1\&2: From 80 feet east from west end of shoring wall (grid line 3) to First Street Temporary Bridge at center of the excavation area (grid line E) with 32 feet wide between wheel stops.
4. Zone 3: From First Street Temporary Bridge to Fremont Street Temporary Bridge at center of the excavation area (grid line E) with 32 feet wide of between wheel stops.
5. Zone 4: From Fremont Street Temporary Bridge to Beale Street Temporary Bridge at center of the excavation area (grid line E) with 48 feet wide of between wheel stops.
6. The Access Trestle Deck shall tie into Temporary Bridges at First, Fremont and Beale Streets.

## Access and Gate Locations

Access and gate locations at First St., Fremont St. and Beale St. are defined in the Temporary Bridges Specification in the Contract Document, SECTION 0153 13. In addition to those gates, two gates at West End Access and Natoma Access shall be installed with the same criteria as other gates specified in the Temporary Bridge Specification.

## Minimum Radius of Corner

Additional spaces at all inner corners of the Access Trestle shall be added for helping Truck/Trailer/Crane turn. Minimum turn requirement shall be the following Trailer specified in "Chapter 400
INTERSECTIONS AT GRADE", Highway Design Manual, Caltrans dated July, 24 2009:
60’ Length Trailer (Trailer Head 16’ and Trailer 48’) with 60 -foot radius.

## Level of the Access Trestle

The level of the Access Trestle shall be the same as the level of the Temporary Bridges at the connections.

## Deck and Surface of the Access Trestle

The 1'x1' Timber or/and precast reinforced concrete shall be used for the deck of the Access Trestle. The deck shall be designed as partially removable. Five deck timbers shall be bolted together in a group as crane mats and every 5 mats shall have L-stops with a 3" covered gap.

## Wheel Stop/Hand Rail/Gate/Signage

Wheel Stops shall be installed around the Access Trestle except for exits.
Steel/Wire Handrail shall be added around the Access Trestle except for exits according to OSHA
regulations. The handrail wire shall be in lengths a man can lift.

Gates for trucks shall be installed at each exit. In addition to the gates, personnel access doors shall be installed next to each gate. The gates and access doors shall be properly secured by keys/card, provided to CM/GC and inspectors.
Following signage shall be clearly posted on the Access Trestle Deck.

- Speed limit Signage (at all gates and one per 200ft )
- Maximum Load Capacity of the deck per span and per square foot (at all gates and one per 200ft)
- Central Information Board for the Access Trestle including Design Summary and PE Stamp, Maximum Capacity, Usage and Safety Requirements, and permission certificates if any. (One Location)


## Coordination with other Trade Package Work

The layout for each member of the Access Trestle including pin piles, beams, bracings and decks, shall not conflict with the permanent structure except for unavoidable penetrations at foundation mat/lower concourse slab and walls. Unavoidable penetrations at foundation mat/lower concourse slab and walls shall be minimized and coordination with other Trade Subcontractors shall be required.

## END OF ACCESS TRESTLE CRITERIA

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ISSUANCE LOG

| REV No. | ISSUE | DATE |
| :---: | :--- | :---: |
| 0 | Issued For Bid TG03 | $2010-07-30$ |
| A | NOT USED | NA |
| B | NOT USED | NA |
| C | Issued For TG03 ADDENDUM No.2 | $2010-08-30$ |
| D | Issued For TG03 ADDENDUM No.3 | $2010-09-27$ |
| E | Issued For TG03 ADDENDUM No.5 | $2010-10-29$ |
| F | Issued For TG03 ADDENDUM No.6 | $2010-11-1$ |
| G | Issued For TG03 ADDENDUM No.7 | $\mathbf{2 0 1 0 - 1 1 - 3}$ |

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## END OF EXHIBIT A

