

**THIS STAFF REPORT COVERS CALENDAR ITEM NO.: 9
FOR THE MEETING OF: October 14, 2010**

TRANSBAY JOINT POWERS AUTHORITY

BRIEF DESCRIPTION:

Amending Contract No. 07-04-TTC-000, Professional Design Services for the Transbay Transit Center Building and Related Structures, with Pelli Clarke Pelli Architects, Inc. (the "Agreement"), to update the terms of the Agreement to incorporate the "bottom-up" sequence to design and construction of the Project and to clarify which elements are now included in Phase I and Phase II of construction; to provide Construction Administration services for the extended construction period; to provide electronic monitoring of settlement and soil conditions during excavation and construction of the trainbox; and to increase Additional Services allowance to \$30,000,000 to reflect these and other additional services.

SUMMARY:

- On June 2, 2006, the Board adopted the phasing strategy for the Transbay Program and construction of the Transbay Transit Center.
- On March 20, 2008, the TJPA Board approved the award the contract for design and construction administration services of the Transbay Transit Center Building and Bus Ramps to Pelli Clarke Pelli Architects, Inc. (PCPA).
- On December 18, 2008, the TJPA convened a Structural and Seismic Review Committee (SSRC), an independent panel of structural, geotechnical, and seismic experts, to provide oversight of the structural design of the Transit Center. The Department of Building Inspection (DBI) has also looked to the SSRC for input and guidance in their review of the Transit Center design for code compliance. The panel has met periodically during the course of design and has requested the team provide additional studies and analyses to demonstrate the performance of the structural design.
- On April 9, 2009, the TJPA Board approved Amendment 1 to the PCPA contract to evaluate drilled piers being considered to support properties adjoining the Transit Center and to evaluate alternate means of constructing the shoring walls which will form the perimeter of the excavation for the train levels of the Transit Center in an amount not to exceed \$5,000,000.
- On July 31, 2009, the TJPA Board approved Amendment 1A to the PCPA contract to reduce the scope of Amendment 1 to plan and monitor tests of alternate methods for soil improvements and shoring wall construction and analyze the test results in an amount not to exceed \$850,000. The construction of the test structures was performed by Webcor/Obayashi, JV.

- On June 11, 2009, the TJPA Board authorized Staff to direct PCPA to include design of the below-grade levels of the Transit Center in the Phase 1 construction of the Transit Center.
- On January 28, 2010, the FRA announced the award of \$2.25 billion in ARRA funding to the State of California including \$400 million to the TJPA for the construction of the train box.
- During the course of the Transit Center design, the TJPA has received new information and design requirements from the California High Speed Rail Authority (CHSRA) as they have advanced their planning and design efforts. The design team has studied how these requirements might be accommodated in the most practical and cost-effective manner. In some cases, this has involved iterative studies of solutions and revisions to the Transit Center design, including changes in the building area and configuration.
- On June 10, 2010, the TJPA Board adopted a Revised Baseline Budget and Schedule incorporating the construction of the train box into Phase 1. Under the revised schedule, the construction of the Transit Center will take seven years, and the bidding of construction trade packages will extend over five years as the construction proceeds.
- Staff has prepared, and recommends that the TJPA Board of Directors authorize, an Amendment to the Agreement with Pelli Clarke Pelli Architects, Inc., to incorporate the "bottom-up" sequence to design and construction; to provide Construction Administration services for the extended construction period; to provide electronic monitoring of settlement and soil conditions during excavation and construction of the trainbox; and to increase Additional Services allowance to \$30,000,000 reflecting these and other additional services.

BACKGROUND:

The Agreement between the TJPA and PCPA contemplated the construction of the Project would be "top-down" with the above-grade levels constructed prior to the below-grade core and shell. This strategy allowed the construction of the elements of the Transit Center for bus operations with the funding that was available at the time. This approach to construction was reflected in several provisions of the Agreement.

The TJPA has now secured funding to construct the below grade levels of the Transit Center in Phase 1 following "bottom-up" construction. Incorporating the additional scope into Phase 1 requires revising those provisions of the Agreement which were tied to the originally-contemplated "top-down" sequence including, but not limited to, the Fee for Construction Administration services, the amount of the Fixed Budget Limit, and the schedule for and the scope description of Phase I and Phase II construction.

In the course of design, the design team has adapted to new input and design requirements. In most instances, the changes were routine in nature and/or of a type that would be reasonably foreseeable in the course of design and, as such, were basic services under the Agreement. Some

services, however, were so expansive in their impact, significant in scope, complex or unanticipated that they fall outside the scope of the original Agreement. Significant amongst these are revisions to the design in response to new information and design requirements from the CHSRA and the additional studies and analyses that have been requested by the SSRC and studies.

Amendment No. 2 would update the terms of the Agreement to incorporate the "bottom-up" sequence to design and construction of the Project; clarify which elements going forward are included in Phase I and Phase II construction; modify the Fixed Budget Limit, the Additional Services aggregate billing limit, and Project Construction Schedule; and phasing of certain design efforts in the Construction Document Phase.

EXPLANATION:

Project Phasing

In 2005-2006 the TJPA, in consultation with the Program Management and Program Controls team (PMPC), conducted a Value Engineering exercise to identify methods of reducing the overall cost of the Transbay Program and secure the greatest benefit from the funds committed to date. The principal outcome of this process was a recommendation to split the Transbay Program into two phases: Phase 1 included construction of the elements of the Program necessary for bus operations--construction of the temporary terminal, demolition of the existing Transbay Terminal and bus ramps, and construction of the above-grade levels of the Transit Center, the bus ramps, and bus storage. In Phase 1, the TJPA planned to build drilled caisson foundations and other improvements in the Transit Center to allow for future construction of the train box – the Rail Concourse and Rail Platform levels. Phase 2 involved construction of the rail extension for Caltrain commuter rail and California High Speed Rail (“DTX”) and the rail levels of the Transit Center using a “top down” construction methodology. At its June 2, 2006 meeting, the TJPA Board adopted this phased implementation strategy.

When the American Recovery and Reinvestment Act (ARRA) was announced in February of 2009, the TJPA reevaluated the design approach in the prospect that additional funding could be secured to expand the scope of Phase 1 construction. In consideration of the possibility that the TJPA could secure additional funding through ARRA and recognizing the significant benefits of constructing the rail levels of the Transit Center in the first phase of construction – reducing total construction costs, simplifying construction, and enhancing the Transit Center design – the TJPA Board, on June 11, 2009, authorized Staff to direct PCPA to proceed with design of the Transit Center with the expectation that the construction of the below-grade levels would be included in Phase 1.

Agreement Terms

The principal focus of the proposed revisions to the Agreement has been to incorporate the "bottom-up" sequence to design and construction of the Project and to clarify the scope of Phase I construction as opposed to future elements of construction. The discussion of project phasing was embodied primarily in the Description section of the Agreement and Attachment 1, and the proposed Amendment accordingly modifies those sections in addition to other references to the construction phasing. The expansion of the Phase 1 scope also necessitates the revision of other

terms of the Agreement, including the Fixed Budget Limit, Project Construction Schedule and the Additional Services billing limit.

The Agreement with PCPA binds them to produce a design for Phase 1 that is consistent with the TJPA's Phase 1 Budget. The mechanism for this was the Fixed Budget Limit. At the time the Agreement was executed, the Fixed Budget Limit was established at \$360 million. This figure was in January 2007 figures and did not represent the entirety of the Phase 1 construction scope, contingencies or escalation to the year of expenditure cost. The revised Fixed Budget Limit, recognizing changes in the scope of construction, escalation and other factors, is proposed to be \$710 million in January 2010 figures.

The duration of construction from the time that the existing Terminal was vacated until the new Transit Center was opened for operations was originally to be limited to 5 years – including the time required for demolition and utility relocation. As a result, the original agreement called for a Construction Administration duration of 4 years, or 48 months, extendable to 54 months at no additional cost. The revised agreement calls for a Construction Administration period of 72 to 78 months.

The Agreement as originally drafted called for PCPA to produce the entire design for both Phase 1 and Phase 2 elements of construction in their entirety on a single schedule moving into construction as soon as documents were available. With the expansion of the Phase 1 scope to include construction of the rail levels and the inherent extension of the construction schedule, it is apparent that it would be advantageous to have the design team complete some of the later design packages – Information Technology, Communications, Security and Signage – closer to the start of construction for those scopes so that the design and product specifications reflect the current state of technology at the time of construction.

It is also apparent that development of the design for the building systems and finishes on the rail levels beyond the 50% Construction Document level will be of little benefit to the TJPA as the program requirements for these levels will inevitably evolve before their construction. The Amendment provides, therefore, that design of the later Phase 1 packages and the Phase 2 elements of construction will be postponed at 50% Construction Documents level with the Phase 1 packages to be completed in four years in accordance with the current Phase 1 construction schedule and the Phase 2 packages to be completed prior to Phase 2 construction.

The Additional Services provisions of the Agreement are also modified to increase the aggregate billings for Additional Services. In addition to the change in Phase 1 scope to incorporate the Train Box into Phase 1, there have been other changes in the scope of the Transit Center design and construction that have required PCPA to provide services beyond the scope of Basic Services anticipated in the agreement. Most notable amongst these are additional geotechnical and structural studies requested by the SSRC and the impacts of the evolving design and operational requirements of the CHSRA.

California High Speed Rail Authority (CHSRA)

As the CHSRA has advanced the environmental and operational planning of their system they have communicated new information and design requirements to the TJPA. Some of the

information from the CHSRA has required the design team to produce alternative designs to address the new information and in several cases these have given rise to changes in the design of the Transit Center.

In February 2009, CHSRA stated that the Transit Center would need to accommodate twelve high-speed trains (HSTs) per hour and that the trains would need to dwell at the platform for 40 minutes. Working with PCPA and the DTX design team, the TJPA developed an alternative that would have added an additional level of rail platforms to the Transit Center to provide this amount of capacity at the Transit Center. After reviewing the TJPA's estimate of the cost to provide that additional level of rail platforms and modify the DTX, CHSRA concluded that the Transit Center design should proceed as originally envisioned and that, if their operations exceeded the capacity of the Transit Center, it would be more practical and cost effective to terminate some trains at a 4th and King Street.

In March 2009, CHSRA stated that they would need 400 meter tangent (straight) platforms. This was a departure from the design that the TJPA had pursued beginning with the pre-design scoping documents. The design for the Transit Center had always assumed that a portion of the high-speed rail platforms would be curved. During the summer of 2009, the TJPA with PCPA and the DTX design team developed a layout extending the rail levels of the Transit Center eastward beyond Beale Street to provide straight platforms. In this configuration, one HSR platform would provide fully tangent boarding on both sides, and the second would be fully tangent on one side and would be straight over 85% of its length on the other side. This modified rail concept became the assumed configuration for the Transit Center design moving forward.

In February 2010, the FRA, as a condition of the ARRA award, requested the TJPA secure formal CHSRA concurrence with our design approach. At that time, CHSRA requested that the TJPA increase the radius of curvature of the tracks entering the Transit Center and revise the layout to ensure that both sides of the two HSR platforms were tangent over their entire 400 meter length. The TJPA, PCPA and the DTX design team again reviewed the configuration of the Transit Center and DTX tunnel and developed a solution that accommodated these changes. This plan required extending the rail platforms further to the east than the concept from the summer of 2009 and changed the configuration of the trackwork and column spacing at the west end of the building. At their April 8, 2010, board meeting, the CHSRA endorsed this conceptual layout.

In continued coordination after the April 2010 CHSRA board action, the TJPA and CHSRA have continued to collaborate on revisions to the layout endorsed by the CHSRA board to reduce the cost of construction, improve operations and improve the integration of the Transit Center into the site. By the end of August 2010, we developed a layout that provides the fully tangent 400 meter platforms that CHSRA requires at a lower cost than the April layout by moving Caltrain to the northern platform of the Transit Center and moving the HSTs to the southern platforms. The Caltrain platform would be 240 meters in length on one side, consistent with Caltrain's minimum design criteria, and would be 400 meters in length on the other side. Although a design variance process with CHSRA and Caltrain will be required to document and formalize their acceptance

of the current configuration, both Caltrain and CHSRA have indicated that it generally conforms to their operational requirements for the Transit Center.

Responding to these changing requirements has required PCPA to study multiple solutions with wide ranging design and cost implications, often within compressed timeframes. The changes in the Transit Center design that have arisen out of these efforts have increased the area of the rail levels and required analysis and modification of vertical circulation, structural composition, and other building systems impacting the scope and productivity of PCPA's design efforts. The productivity impact has been magnified as the design of the Transit Center has progressed. PCPA delivered its 100% Design Development submittal in late February and, after review of the package and reconciliation of PCPA and Webcor/Obayashi cost estimates, has been in the Construction Document phase of design since April.

Structural and Seismic Review Committee (SSRC)

On December 18, 2008, the TJPA convened a Structural and Seismic Review Committee (SSRC), independent panel of structural, geotechnical, and seismic experts, to provide peer review and commentary on the structural design of the Transit Center. The SSRC members include Jonathan Bray, Jack Moehle and Joe Penzien of UC Berkeley, Frieder Seible of UC San Diego, Robin McGuire of Fugro West, Mason Walters of Forell Elsesser Engineers, and Loring Wyllie of Degankolb. Because the structural design of the Transit Center is not following a prescriptive code compliance, but a performance based approach, the Department of Building Inspection (DBI) has looked to the SSRC for input and guidance in their review of the Transit Center design for code compliance based upon the SSRC's expertise and familiarity with the project.

The panel has met periodically during the course of design to receive information from the design team and has reviewed the progress documents prepared by PCPA. Over the course of these meetings, the SSRC has requested additional studies and analyses be prepared by Thornton Tomasetti, the structural designer, and ARUP, the geotechnical engineer, to quantify and illustrate the performance of the structural design, including soil-structure interaction analyses, finite element analysis, cyclic load testing, and additional and expanded seismic analyses.

Additional Services

In addition to the services described above, PCPA has performed or is proposed to perform other services not anticipated in the original agreement, including, but not limited to, additional geotechnical studies and design services, physical and digital design modeling, and rail smoke exhaust studies and design.

TJPA Staff have negotiated values for Construction Administration of the trainbox, design of the trainbox extension and several additional structural and geotechnical studies. PCPA has submitted fee proposals for other Add Services, and final resolution of the cost impact is pending. The table below summarizes the major groups of negotiated and proposed Additional Services with their total associated cost.

Expanded Construction Administration Services	\$	9,500,000
Soil Monitoring Instrumentation with Web-Based Interface	\$	4,100,000
Trainbox Extension and Rail Associated Studies and Design Services	\$	7,800,000
Additional Structural, Seismic, and Threat related Services	\$	5,000,000
Other Add Services	\$	3,600,000

RECOMMENDATION:

Staff recommends that the TJPA Board of Directors authorize Amending Contract No. 07-04-TTC-000, Professional Design Services for the Transbay Transit Center Building and Related Structures, with Pelli Clarke Pelli Architects, Inc. (the “Agreement”), to update the terms of the Agreement to incorporate the "bottom-up" sequence to design and construction of the Project and to clarify which elements going forward are included in Phase I, versus Phase II, construction; to provide Construction Administration services for the extended construction period; to provide electronic monitoring of settlement and soil conditions during excavation and construction of the trainbox; and to increase Additional Services allowance to \$30,000,000.

ENCLOSURE:

1. Resolution
2. Amendment

**TRANSBAY JOINT POWERS AUTHORITY
BOARD OF DIRECTORS**

Resolution No. _____

WHEREAS, The Transbay Transit Center will be a landmark intermodal transit center supporting rail and bus operations; and

WHEREAS, On June 2, 2006, the Board adopted the phasing strategy for the Transbay Program and construction of the Transbay Transit Center; and

WHEREAS, On March 20, 2008, the TJPA Board approved the award of the contract for design and construction administration services of the Transbay Transit Center Building and Bus Ramps to Pelli Clarke Pelli Architects, Inc. (PCPA) ; and

WHEREAS, On December 18, 2008, the TJPA convened a Structural and Seismic Review Committee (SSRC), an independent panel of structural, geotechnical, and seismic experts, to provide peer review and oversight of the structural design of the Transit Center; and

WHEREAS, The SSRC has met periodically during the course of design and has requested PCPA provide additional studies and analyses to demonstrate the performance of the structural design; and

WHEREAS, On April 9, 2009, the TJPA Board approved Amendment 1 to the PCPA contract to evaluate drilled piers being considered to support properties adjoining the Transit Center and to evaluate alternate means of constructing the shoring walls which will form the perimeter of the excavation for the train levels of the Transit Center in an amount not to exceed \$5,000,000; and

WHEREAS, On July 31, 2009, the TJPA Board approved Amendment 1A to the PCPA contract to reduce the scope of Amendment 1 to plan and monitor tests of alternate methods for soil improvements and shoring wall construction and analyze the test results in an amount not to exceed \$850,000; and

WHEREAS, On June 11, 2009, the TJPA Board authorized Staff to direct PCPA to include design of the below-grade levels of the Transit Center in the Phase 1 construction of the Transit Center; and

WHEREAS, On January 28, 2010, the Federal Railroad Administration (FRA) announced the award of \$2.25 billion in ARRA funding to the State of California including \$400 million to the TJPA for the construction of the train box; and

WHEREAS, During the course of the Transit Center design, the TJPA has received new information and design requirements from the California High Speed Rail Authority (CHSRA) as they have advanced their planning and design efforts; and

WHEREAS, Accommodating these new requirements from CHSRA in the most practical and cost-effective manner has involved additional study and revisions to the Transit Center design, including changes in the building area and configuration; and

WHEREAS, On June 10, 2010, the TJPA Board adopted a Revised Baseline Budget and Schedule incorporating the construction of the train box into Phase 1; now, therefore, be it

RESOLVED, That the TJPA Board of Directors authorizes the Executive Director to execute Amendment No. 2 to the Agreement for professional design and construction administration services for the Transit Center Building and Related Structures with Pelli Clarke Pelli Architects, Inc., to incorporate the "bottom-up" sequence to design and construction; to provide Construction Administration services for the extended construction period; to provide electronic monitoring of settlement and soil conditions during excavation and construction of the trainbox; and to increase Additional Services allowance to \$30,000,000 reflecting these and other additional services.

I hereby certify that the foregoing resolution was adopted by the Transbay Joint Powers Authority Board of Directors at its meeting of October 14, 2010.

Secretary, Transbay Joint Powers Authority

AGREEMENT
AMENDMENT NO. 2
BETWEEN
TRANSBAY JOINT POWERS AUTHORITY
AND
PELLI CLARKE PELLI ARCHITECTS, INC.

This Amendment is entered into as of _____, 2010 by and between the Transbay Joint Powers Authority (the "TJPA") and Pelli Clarke Pelli Architects, Inc. (the "Architect"). By this Amendment No. 2, the TJPA and the Architect hereby modify the Agreement dated May 15, 2008 (the "Agreement"), only to the extent expressly provided in this Amendment No. 2. All other terms and conditions of the Agreement shall remain in full force and effect.

Recitals

- A.** On May 15, 2008, the TJPA Board awarded the Agreement to the Architect to perform architectural and engineering professional design services for the Transbay Transit Center Building and Related Structures Project (the "Project").
- B.** On April 9, 2009, the TJPA Board approved Amendment No. 1 to the Agreement.
- C.** On July 31, 2009, the TJPA Board approved Amendment No. 1A to the Agreement.
- D.** When the parties entered the Agreement, they contemplated the construction of the Project to be "top-down" (above-grade levels constructed prior to the below-grade core and shell). The availability of funding necessitated this approach to design and construction. On June 11, 2009, anticipating possible funding availability, the TJPA Board directed the TJPA to proceed with the design of the Project for "bottom-up" rather than "top-down" construction. The TJPA has now secured funding for "bottom-up" construction.
- E.** The "bottom-up" construction sequence requires that provisions of the Agreement which are tied to the originally-contemplated "top-down" sequence be modified. Such provisions include, but are not limited to, the amount of the Fixed Budget Limit and the schedule for and the scope description of Phase I and Phase II construction.
- F.** By this Amendment No. 2, the TJPA and the Architect desire to update the terms of the Agreement to incorporate the "bottom-up" sequence to design and construction of the Project, to clarify which elements going forward are included in Phase I (versus Phase II) construction and to add phasing of certain design elements in the Construction Document Phase of design services by amending Attachment 1: Scope Definition, and to modify the Fixed Budget Limit, the Additional Services aggregate billing limit, and Project Construction Schedule.
- G.** Other than the provisions expressly modified by this Amendment No. 2, or any prior Amendment, all terms and conditions of the Agreement remain in full force and effect.

Modified Terms and Conditions

ARTICLE 1. THE PROJECT.

1.1. Description

Paragraph 1.1 of the Agreement, second paragraph, is hereby modified to update the description of the Project and shall provide as follows:

The Project shall consist of the Transbay Transit Center Building (comprised of five levels, below-grade and above-grade, and a roof-top park) the Bus Ramps connecting the Transit Center Building to the Bus Storage Facilities and the West Approach to the Oakland-San Francisco Bay Bridge, the interconnection and coordination with the Caltrain Downtown Extension (DTX) component of the Transbay Transit Center Program, and the interconnection and coordination with the Transbay Tower. The Project will be located over four blocks (from Fremont to Second Streets) between Mission and Natoma Streets in the City and County of San Francisco.

1.2. Fixed Budget Limit Of Project Construction Cost.

Paragraph 1.2.1 of the Agreement is hereby modified to increase the Fixed Budget Limit from \$360 Million to \$710 Million and to incorporate the revised definition of the construction Phases. As modified, paragraph 1.2.1 shall provide as follows:

The fixed budget limit of construction cost (the "Fixed Budget Limit") for the Project is Seven Hundred Ten Million Dollars (\$710,000,000) in January 2010 dollars and cost indices. The Fixed Budget Limit includes all of the costs of basic construction for Phase I construction, including (a) the below-grade foundation, core and shell of the Train Box and (b) the above-grade elements of the Transit Center Building, as more fully described in Attachment 1, as modified under this Amendment No. 2. The Fixed Budget Limit excludes construction contingencies and alternates, either additive or deductive, the cost of furniture, operating and office equipment, telephones and business networks, furnishings, and the cost of artwork that is to be incorporated in the Project as an integral building or site element of the Phase I elements of the Transit Center Building as described in Attachment 1 to this Agreement.

Paragraph 1.2.2 of the Agreement is hereby modified to conform the reference to Phase II construction by deleting the term "(below grade)" in the sentence beginning "The following project elements . . ." as follows:

The Architect is responsible for designing a comprehensive and complete Project that conforms to the Fixed Budget Limit, +/- 5%. The Architect shall monitor the design and estimate the construction cost for the Project as the design is developed, according to the TJPA Cost Change Control Procedure described in Article 4.12 below, and also as the sequential trade packages are prepared and awarded, all in coordination with the TJPA and the CM/GC, as set forth in Article 4.13 below. Such coordination imposes no additional liability on the part of the TJPA or the CM/GC. In the event that cost estimates prior to bidding or actual trade package bids, as may be submitted at various phases or stages of design or

construction, indicate that the construction cost will exceed the Fixed Budget Limit after taking into account the alternates described below in 1.2.2.1, the Architect shall, at the request of the TJPA and at no cost to the TJPA: (i) revise the design and construction documents, plans and specifications and (ii) assist the TJPA with re-bidding of the Project or any trade package(s), until the construction cost is within +/-5% of the Fixed Budget Limit, subject to the following Articles 1.2.2.1, 1.2.2.2, 1.2.2.3, and 1.2.2.4. The following Project elements are not included in the Fixed Budget Limit and shall not be considered part of the no-cost bid and construction phase re-design obligations of this Article: (a) the Bus Ramps and (b) Phase II construction (as defined in Attachment 1). The Architect, however, acknowledges and agrees that the TJPA shall set separate construction budgets for the Bus Ramps and for the Phase II construction, and the Architect will be responsible, as part of Basic Services, to design such elements to the stated budgets in conformance with Articles 3, 4, and 5 of this Agreement. Upon completion of the Construction Documents phase for the Bus Ramps and Phase II construction elements, any re-design of the Bus Ramps or Phase II construction elements necessitated by construction costs, market forces, or other factors outside the control of the Architect, shall be considered Additional Services under this Agreement.

Paragraph 1.2.2.1 of the Agreement is hereby modified to clarify parties' intent in the use of bid alternates, by adding the following at the end of the existing paragraph:

At the sole discretion of the TJPA, the required amount of additive and/or deductive alternates on specific bid packages may be reduced or waived. The reduction or waiver of bid alternate requirements on one bid package shall not imply or confer a reduction in the requirement of alternates in subsequent packages.

1.3. Schedule of Services.

The first two sentence of Paragraph 1.3.3 of the Agreement are hereby modified to change construction duration from 48 months to 72 months and shall provide as follows:

Construction administration phase duration for the Project is estimated to be seventy-two (72) months. Should the Architect be required to perform construction administration phase services for a period beyond a total duration of seventy-eight (78) months, due to no fault of the Architect, the Architect is entitled to additional compensation and is obligated to provide complete and accurate documentation of all actual increased cost of performance of its services.

The remaining sentences of Paragraph 1.3.3. are unchanged.

ARTICLE 7. ADDITIONAL SERVICES.

Paragraph 7.21 of the Agreement is hereby modified to conform the references to Phase I and Phase II construction, and shall provide as follows:

Providing bid phase and construction administration services for Phase II construction (below-grade finishes (see Attachment 1: Scope Definition)).

The TJPA and the Architect acknowledge and agree that while the Architect's fee for such services is not included in the original Basic Services fee under this Agreement, the TJPA and the Architect shall make their best efforts to establish a lump sum fee for such services, to be added to the Architect's Basic Services Fee (see Article 8.1, below), by modification to this Agreement. The TJPA and the Architect further acknowledge and agree that their intention is to establish a lump sum fee for Phase II bid phase and construction administration prior to authorization to commence such services. In the event that the TJPA and the Architect are unable to establish a lump sum fee for such additional services, the TJPA shall in its sole discretion set a not-to-exceed fee for Phase II construction bid phase and construction administration services commensurate with the fee and percentages of fee set forth in Article 8.1, as originally provided.

Paragraph 7.22 is hereby added to the Agreement and shall provide as follows:

Design services for the Train Box Extension (West End Tunnel Throat and East of gridline 35), and associated modifications to the Train Box design necessitated by the Train Box Extension.

ARTICLE 8. COMPENSATION.

8.2. Additional Services.

Paragraph 8.2 of the Agreement is hereby modified to increase the amount of maximum aggregate billings for Additional Services from \$3,850,000 to \$30,000,000.

ATTACHMENT 1. SCOPE DEFINITION.

Attachment 1: Scope Definition is hereby modified to conform the revised definitions of Phase I and Phase II, and shall provide as follows:

A. Project Scope

The Project is described in detail in the Scope Definition Report that served as a basis for the Request for Proposals for professional design services for this Project (see Appendix A to the Agreement). In addition, the Proposal submitted by the Architect described a design concept and design features for the Transit Center Building. Both the Scope Definition Report and the Architect's Proposal are incorporated here by reference as descriptions of the Project, the Transit Center Building, and the Scope of Design Services. Wherever this Attachment 1 to the Agreement conflicts with those documents, this Attachment and the Agreement shall govern.

The Project shall consist of the Transbay Transit Center Building, the Bus Ramps connecting the Transit Center Building to the Bus Storage Facilities and the West Approach to the Oakland-San Francisco Bay Bridge, the interconnection and coordination with the Caltrain Downtown Extension (DTX) component of the Transbay Transit Center Program, including the Train Platform Level and the Lower Concourse Level, and the interconnection and coordination with the future Transbay Tower if and to

the extent the design for that Tower may be completed under another contract so as to allow for such interconnection and coordination services under this Agreement.

In general, Phase I construction is the above-grade elements of the Project plus the below-grade elements of (i) foundation and (ii) core and shell of the Train Box as defined below. In general, Phase II construction is the below-grade build out, systems, and finishes for the Train Platform Level (B2) and Lower Concourse Level (B1), as well as extension of the Train Box core and shell from the East side of Beale Street to the East side of Main Street and any build-out of the extended Train Box. Phases I and II are more specifically defined below.

B. Transit Center Building Scope

The Transit Center Building shall have six levels: (1) a Train Platform Level (B2), (2) a Lower Concourse Level (B1), (3) a Ground Level, (4) a Second Floor Level, (5) an Elevated Bus Level (Bus Deck), and (6) a Park Level.

The Train Platform Level (B2) and the Lower Concourse Level (B1) are the below-grade levels of the Transit Center Building and are together sometimes referred to as the "Train Box". The Train Box shall require coordination and integration with the DTX project, interface with the DTX structure south of Natoma Street (column lines 1 through 8, and south of column line J); and coordination with and provision for ventilation, signaling, rail, and other rail operating systems to be designed by others, but to continue from the DTX into the Transit Center Building. The Train Box extent is defined by the East edge of Beale Street and by the West Transbay property line adjacent to 83 Minna Street.

The Transit Center Building shall also include coordination and integration of related projects to be performed by others: (a) the utility relocation work for the Transit Center Building, (b) the Mission Square Plaza on the Transbay Tower site, adjacent to the Transbay Tower and bounded by the Transit Center Building to the south and Mission Street to the north; and (c) the Transbay Tower.

C. Scope and Phasing of Design Services

The Architect shall design all Phase I and Phase II elements of the Transit Center Building and the Bus Ramps through the completion of the construction document phase. In the construction document phase, the Architect shall develop all elements of the Transit Center Building design to sufficient level to ensure the feasibility of construction phasing, shall develop and document the strategy for integrating the final construction of the Phase II below-grade elements of the Transit Center Building, and shall prepare bid packages for all elements of the Project to be constructed in Phase I, except the Information Technology, Communications, Security, and Signage packages (the "Phase I Late Packages"); Specialty Lighting may be included in the Phase I Late Packages if and to the extent agreed-upon by the Architect, the CM/GC, and the TJPA.

The Architect shall suspend preparation of the Phase I Late Packages after the 50% construction document submittal. The Architect shall also suspend preparation of Phase II construction documents after the 50% construction document submittal. The TJPA shall authorize completion of the Phase I Late Packages and Phase II construction

documents coordinated in time with actual Phase II construction, in order to capitalize on technological advances for signage and other railway platform or concourse equipment. The completion of Phase I Late Packages and/or Phase II construction documents shall be considered part of the Basic Services Fee under the Agreement. The Architect, however, shall be entitled to an increase in its Basic Services Fee for reasonable, documented costs (such as, for example, personnel cost increases) associated with the suspension and recommencement of design services. The Architect shall also be entitled to an equitable adjustment of its schedule of services under Paragraph 1.3 of the Agreement to account for the impacts from such suspension and recommencement. The Architect and the TJPA shall agree on all associated fee and schedule adjustments prior to the TJPA issuing a Notice to Proceed with such services.

Utility relocations in Minna, Natoma, Beale, Fremont and First Streets shall be designed by others and constructed under separate contracts. Design coordination to incorporate a utility chase on Beale, First and/or Fremont Streets to allow utilities to pass through the Lower Concourse (B2) Level of the Transit Center structure shall be considered part of the Architect's basic services under the Agreement.

Mission Square shall be designed and constructed by the Developer of the Transbay Tower. The Architect's coordination and integration of Mission Square as a primary point of access and egress to the Transit Center shall be considered part of the Architect's basic services under this Agreement.

Should funding become available, the TJPA may elect in its sole discretion as part of Phase I to proceed with the construction of some or all of the Phase II elements of the Project. In such event, bid phase, construction administration, and warranty phase services for that scope shall be considered Additional Services under this Agreement (see Article 7.21).

D. Scope of Phased Construction

Phase I: The elements of the Project constructed in Phase I shall include (i) all above-grade elements of the Transit Center Building, (ii) the Bus Ramps, and (iii) the Train Box (as clarified in this paragraph). Phase I construction of the Train Box shall include the structural core and shell of the Train Box from column line 1 through approximately three feet East of column line 35, and column lines A through J; this is roughly from the throat structure at Natoma Street to the East side of Beale Street. Phase I construction of the Train Box shall also include at the Train Platform (B2) and Lower Concourse (B1) Levels: (i) those elements necessary to support the above-grade elements of the Transit Center Building, including but not limited to utility (PG&E) vaults, generator rooms, and service rooms; (ii) those elements necessary to meet San Francisco Building Code minimum requirements for life safety, including egress, illumination, fire detection, fire alarm, and sprinklers; and (iii) rough-ins, penetrations, and sleeves only for the "Phase I Late Packages" defined above. The design and construction of the Phase I elements shall consider, allow, and provide for the integration and/or expansion of building systems and vertical circulation systems to be constructed in Phase II. The scope of Phase I construction shall also allow for the Phase II construction of the Train Box extension to

column line 45, the Phase I Late Packages, and the overall build-out and finishes for the Train Platform (B2) and Lower Concourse (B1) Levels.

Phase II: The elements of the Project constructed in Phase II shall include the extension of the Train Box East of approximately three feet East of column line 35 to the East side of Main Street (column line 45) and all below-grade build-out of and finishes for the Train Platform (B2) Level and the Lower Concourse (B1) Level. Phase II construction shall result in a complete Train Box, including build-out and finishes, from column line 1 to column line 45, and column line A to column line J, as well as the throat structure south of column line J, as a functional component of the Transit Center Building.

E. Fixed Budget Limit/Scope of Construction Costs

The Fixed Budget Limit, as defined at Article 1.2 of the Agreement as modified by Amendment No. 2, includes the General Conditions fee for the Construction Manager/General Contractor ("CM/GC"), the cost of all construction work required to construct the Phase I elements of the Transit Center Building (the aggregate sum of awarded subcontractor trade packages to build the Train Box between column lines 1 and approximately three feet East of column 35, and level 3 (Ground Level) through and including level 6 (Park Level)), and design contingencies. The Fixed Budget Limit specifically excludes any pre-construction CM/GC or other professional service fees; the cost of site utilities and utility relocations; the handling and disposal of hazardous soils; demolition of the existing Transbay Terminal, bus ramps, and related structures; the construction of the Bus Ramps connecting the Transit Center Building to the West Approach to the Bay Bridge and Bus Storage; the construction of the Mission Square Plaza; cost of permits and related fees; and construction contingencies.

The TJPA has procured the services of the CM/GC. The CM/GC shall pre-qualify subcontractors and award subcontracts to the pre-qualified responsible bidders submitting the lowest responsive bids.

IN WITNESS WHEREOF, the parties hereto have executed this contract Amendment No. 2 on the day first mentioned above.

TRANSBAY JOINT POWERS AUTHORITY

Maria Ayerdi-Kaplan
Executive Director

Transbay Joint Powers Authority

Transbay Joint Powers Authority
Board of Directors
Resolution No. _____
Adopted: _____
Attest:

Secretary, TJPA Board

Approved as to Form:

Dennis J. Herrera, City Attorney

By _____
Deputy City Attorney

Architect

By signing this Agreement, I certify that I comply with the requirements of the Minimum Compensation Ordinance, which entitle Covered Employees to certain minimum hourly wages and compensated and uncompensated time off.

I have read and understood paragraph 55, the TJPA's statement urging companies doing business in Northern Ireland to move towards resolving employment inequities, encouraging compliance with the MacBride Principles, and urging San Francisco companies to do business with corporations that abide by the MacBride Principles.

Authorized Signature

Printed Name

Title

Pelli Clarke Pelli Architects, Inc.

Company Name

1056 Chapel Street

Address

New Haven, CT 06501

City, State, ZIP

Phone Number

Federal Employer ID Number