#### THIS PRINT COVERS CALENDAR ITEM NO.: 12

### SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

DIVISION: Office of the Deputy Executive Director

#### **BRIEF DESCRIPTION:**

Authorizing the award of San Francisco Municipal Transportation Agency Contract No. 1252, Third Street Light Rail Program, Phase 2 Central Subway – Tunnels, to Barnard Impregilo Healy Joint Venture, located at 701 Gold Avenue, Bozeman, Montana 59715, as the lowest responsive and responsible bidder, in the amount of \$233,584,015.00.

#### **SUMMARY:**

- On February 24, 2011, in accordance with the San Francisco Municipal Transportation Agency (SFMTA) Board of Director's Resolution No. 09-191 delegation of authority over contracting, a memorandum notification was submitted to the Board indicating that the Executive Director/CEO had authorized a bid call for SFMTA Contract No. 1252, Third Street Light Rail Program, Phase 2 Central Subway – Tunneling.
- This Contract includes procurement of two Tunnel Boring Machines (TBM); Construction of approximately 8,240-foot long precast concrete segmental lined twin-bored guideway tunnels; Construction of 5 Emergency Cross Passages between bored tunnels; and Construction of Station End Walls.
- The engineers estimate for this work was stated at \$225 million which represented the low end of a range to \$245 million.
- Six bids were received and publicly opened on June 8, 2011. Staff recommends awarding Contract No. 1252 to Barnard Impregilo Healy Joint Venture (Barnard) in the amount of \$233,584,015.00, as responsible bidder that submitted the lowest responsive bid.
- On June 14, 2011, Dragados USA/Flatiron West Joint Venture, the second lowest bidder, submitted a protest alleging that Barnard's bid is unbalanced and that Barnard is not a responsible bidder. Staff is reviewing the protest and anticipates that it will be resolved prior to the SFMTA Board's consideration of contract award.
- Funding for construction services under this Contract is furnished from federal, state and local sources.

#### **ENCLOSURES:**

- 1. SFMTA Board of Directors Resolution
- 2. Project Budget & Financial Plan

APPROVALS:	DATE:
DIRECTOR OF DIVISION PREPARING ITEM:	
FINANCE (IF APPLICABLE):	
EXECUTIVE DIRECTOR/CEO:	
SECRETARY:	
ADOPTED RESOLUTION BE RETURNED TO:	-
ASSIGNED SFMTAB CALENDAR DATE:	

## PAGE 2.

## PURPOSE

Contract No. 1252, Third Street Light Rail Program, Phase 2 Central Subway – Tunneling, will construct the twin bore tunnels for the underground portion of the Central Subway Project.

## GOAL

The Central Subway Project, supported by Contract No. 1252, is consistent with the SFMTA Strategic Plan in the following goals and objectives:

Goal 1 – Customer Focus: To provide safe, accessible, clean, environmentally sustainable service and encourage the use of auto-alternative modes through the Transit First Policy

Objective 1.3 Reduce emissions as required by SFMTA Clean Air Plan

Objective 1.4 Improve accessibility across transit service

Objective 1.5 Increase percentage of trip using more sustainable modes

Goal 2 – System Performance: To get customers where they want to go, when they want to be there

Objective 2.2 Ensure efficient transit connectivity and span of service Objective 2.4 Reduce congestion through major corridors

Goal 3 – External Affairs/Community Relations: To improve the customer experience, community value, and enhance the image of the SFMTA, as well as ensure SFMTA is a leader in the industry

Objective 3.1 Improve economic vitality by growing relationships with businesses, community, and stakeholder groups

Objective 3.2 Pursue internal and external customer satisfaction through proactive outreach and heightened communication conduits

Objective 3.3 Provide a working environment that fosters a high standard of performance, recognition for contributions, innovations, mutual respect and a healthy quality of life Objective 3.4 Enhance proactive participation and cooperatively strive for improved regional transportation

Goal 4 – Financial Capacity: To ensure financial stability and effective resource utilization Objective 4.2 Ensure efficient and effective use of resources

### PAGE 3.

## DESCRIPTION

#### **Background:**

The SFMTA's Third Street Light Rail Transit (LRT) Project is the most significant capital investment in generations for the seventh largest transit system in the nation. Phase 1 of the 6.9-mile, two-phase project began revenue service in April 2007, restoring light rail service to the heavily transit-dependent Third Street corridor in eastern San Francisco for the first time in 50 years.

The Central Subway Project, Phase 2 of the Third Street Light Rail Transit Project, will provide rail service to the Financial District and Chinatown, the most densely developed area of San Francisco. The new light rail line will serve regional destinations, such as Union Square, Moscone Convention Center, Yerba Buena and AT&T Park, as well as connect directly to BART and Caltrain, the Bay Area's two largest regional commuter rail services.

The Central Subway Project is the second phase of the Third Street Light Rail Project. Both phases of the project were initially evaluated under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), in an Environmental Impact Statement/Environmental Impact Report (EIS/EIR) that was certified in 1998. On January 19, 1999 the Public Transportation Commission approved Resolution No. 99-009 which adopted the environmental findings for the Project, including mitigation measures set forth in the 1998 FEIS/FEIR and Mitigation Monitoring Report. The Federal Transit Administration (FTA) issued a Record of Decision on the 1998 FEIS/FEIR for the IOS on March 16, 1999. Revenue operation of Phase 1 of the Third Street Light Rail, extending from Bayshore Boulevard to Fourth and King Streets, began in April 2007.

The Draft Supplemental EIS/EIR was issued on October 17, 2007 for a 55-day public review period. During the public comment period, a series of three publicized community meetings were held in the Chinatown, Union Square and South of Market areas to provide information to the public about the Draft SEIS/SEIR released for public review. These informational meetings were well attended and the public was provided with opportunities to view renderings and to talk with project staff about the project and the environmental process. The San Francisco Planning Department conducted a public hearing on the Supplemental EIS/EIR on November 15, 2007.

On February 19, 2008 the SFMTA Board of Directors adopted Resolution No. 08-029, selecting the Central Subway Project Alternative 3B, Fourth/Stockton Alignment with semi-exclusive surface rail operations on Fourth Street, as the Locally Preferred Alternative, and authorizing the Executive Director/CEO to carry forward this selection in the Final SEIS/SEIR.

Environmental appeals were filed and heard by the Board of Supervisors on September 16, 2008. The Board of Supervisors voted unanimously to uphold the Environmental findings. No legal challenges under CEQA or NEPA were filed, and the time to file such challenges has expired.

The notice for the Final SEIR appeared in the Federal Register on October 3, 2008 and the 30day waiting period has elapsed. The FTA issued the Record of Decision announcing the completion of the Central Subway environmental process on November 16, 2008.

## PAGE 4.

### **Current Status:**

The Central Subway design consists of a short portion of in-street, surface light rail in the southern portion of the system before transitioning into subway operation for most of the alignment. Twin bore tunnels are proposed for the subway with three subway stations serving the Moscone/Yerba Buena, Union Square/Market Street and Chinatown areas. The Union Square/Market Street Station will interconnect with the existing BART/Muni Powell Street Station. A deep tunneling approach using tunnel boring machines (TBMs) is proposed to reduce surface disruption during construction, to create a more direct alignment and to shorten the construction period. The Central Subway tunnels will pass under the existing BART/Muni Market Street subway tunnels with the rail over 95 feet below the ground surface. Most of the alignment will be located under existing street right-of-way with limited required underground easements. The stations will have center-platforms with passenger end-loading and are designed to accommodate high-floor two-car trains. Whenever feasible, off-street properties have been identified for the primary station access with transit oriented development opportunities at the Moscone/Yerba Buena and Chinatown stations.

Construction methods consist of TBM construction of the running tunnels which will pass through differing geological formations, including bay mud, alluvium, Colma formation, and Franciscan bedrock. Subway station construction methods will vary. The Moscone/Yerba Buena and Union Square/Market Street Stations will be constructed using traditional, top-down cut-andcover construction. Chinatown Station, located within a very constricted area, will be constructed using mined sequential excavation.

The project has completed the preliminary engineering design. Seven major construction contracts are planned to implement the project two of which have already been awarded. The project construction began in 2010 and is to be completed in 2018.

### **Purpose and Scope of Contract:**

SFMTA Contract No. 1252, Third Street Light Rail Program, Phase 2 Central Subway – Tunneling will include:

- 1. Procuring two TBMs for construction of the guideway tunnels.
- 2. Mobilizing for Contract 1252 at the TBM Launch Box.
- 3. Structural and geotechnical instrumentation and monitoring of project structures and adjacent existing utilities, buildings, BART and MUNI Market Street Tunnels, infrastructure, and subsequent handover to follow-on station contracts.
- 4. A temporary TBM Launch Box along Fourth Street between Bryant and Harrison Streets. This TBM Launch Box will be used as the TBM launch and tunnel construction access point. After tunnel construction is complete, a permanent portal (Fourth Street Portal) will be constructed.
- 5. TBM Retrieval Shaft along Columbus Avenue between Union and Powell Streets. This work shall proceed with either the Base Bid for Permanent Shaft, or ST-OP1 Retrieval Shaft Option.

## PAGE 5.

- 6. A temporary Grout Shaft on Ellis Street, which will be used for installation of compensation grout pipes and subsequent compensation grouting for protection of buildings and the Market Street BART and SFMTA (Municipal Railway) tunnels and facilities.
- 7. A temporary grout shaft at the car park at 1435-55 Stockton, which will be used for installation of compensation grout pipes and subsequent compensation grouting for protection of 1435 Stockton (Bank of America).
- 8. Other compensation grout pipes for building protection as indicated in the Contract Documents.
- 9. Approximately 8,240-foot long precast concrete segmentally lined twin-bored guideway tunnels constructed using pressurized face TBM techniques, between the TBM Launch Box and the TBM Retrieval Shaft.
- 10. Five emergency cross passages (designated CP-1 through CP-5) excavated at intervals between the bored tunnels using sequential excavation methods.
- 11. Secant pile and jet grout end walls for the Union Square/Market Street Station..
- 12. Diaphragm slurry and jet grout end walls for the Moscone Station.
- Compensation grouting from street surface along Fourth Street for protection of 2-12 Market Street (Old Navy), 795 Folsom Street (AT&T), 367-399 Fourth Street (Whole Foods)
- 14. Jet Grouting within Fourth Street at CP-5 at Jessie Street, Tunnel Launch Box, and TBM Retrieval Shaft
- 15. Ancillary surface work including: Temporary traffic routing; Utility demolition; New sewer, water distribution, and Auxiliary Water Supply System (AWSS) construction; Road and pavement demolition and restoration; Temporary removal of Muni trolley coach Overhead Contact System (OCS);
- 16. Demobilization and site restoration.
- 17. The contract provides for two options: (1) implementation of an Owner Controlled Insurance Program (OCIP) in lieu of contractor provided insurance, and (2) a temporary retrieval shaft at the termination of the tunnel in lieu of a permanent retrieval shaft).

### **Bids Received:**

On June 8, 2011 SFMTA Capital Programs and Construction Division received six bid proposals. The Engineer's Estimate for the work was \$225 million

An analysis of the bids discovered minor clerical errors by two of the bidders, Judlau/Shimmick JV (4th low) and Frontier-Kemper / Tutor Perini JV (6th low), originating from bidder's errors during the addition of the bid item prices. Those bids were adjusted to correct for the errors.

## PAGE 6.

The six bid proposals received were as follows:

Bidder	Base Bid	Optional Item 1	Optional Item 2
Barnard Impregilo Healy 701 Gold Avenue, Bozeman, Montana 59715	\$233,584,015.00	(\$1,927,335.00)	(\$6,202,980.80)
Dragados Flatiron 1111 L Street, Sacramento, CA 95814	\$234,811,140.00	(\$2,155,000.00)	(\$9,919,000.00)
Shea Traylor 667 Brea Canyon Road, Suite 30, Walnut, CA 91789	\$257,854,655.00	+\$90,000.00	(\$13,078,000.00)
Judlau Shimmick	\$266,802,330.00	(\$1,000,000.00)	(\$10,000,000.00)
Obayashi Kenny	\$274,556,765.00	\$0.00	(\$16,600,000.00)
Frontier-Kemper Tutor Perini	\$296,267,700.00	(\$10,000.00)	(\$10,000,000.00)

The bid document specified the basis of award as the lowest Total Base Bid Price without options. The Agency may exercise either or both of these options prior to issuing the Notice to Proceed with the work.

The lowest Total Base Bid of \$233,584,015.00 without options by Barnard Impregilo Healy Joint Venture, was within the range of the engineer's estimate for Total Base Bid.

### **ALTERNATIVES CONSIDERED**

Various alternative routes and tunneling strategies were considered during Preliminary and Advanced Preliminary Design as required for the project to proceed. Contracting out for this work is the only alternative available to the Agency.

### FUNDING IMPACT

The \$1.58 billion FTA New Starts Project is to be funded by a combination of federal, state and local monies. The funds for this contract are subject to allocation by the San Francisco County Transportation Authority (SFCTA). The contract has three distinct Notice to Proceed (NTP) authorizations. NTP 1 (\$35M) authorizes procurement of Tunnel Boring Machines, NTP 2 (\$36M) authorizes construction of the Tunnel Launch Box and Contractor's work area. NTP 1 and NTP 2 are funded with Prop K and federal funds. NTP 3 (\$163M) authorizes commencement of tunneling, is funded with future State and Federal funds, and will not be authorized until receipt of the Full Funding Grant Agreement from the FTA. The Project Budget & Financial Plan is set forth in Enclosure 2.

### PAGE 7.

### OTHER APPROVALS RECEIVED OR STILL REQUIRED

No other approvals are required to award this contract.

The Contract Compliance Office has reviewed the bid proposals and confirmed that Barnard Impregilo Healy will meet the Small Business Enterprise (SBE) participation goal of six percent established for this contract.

The City Attorney's Office has reviewed this calendar item.

On June 14, 2011, Dragados USA/Flatiron West Joint Venture, the second lowest bidder, submitted a protest alleging that Barnard's bid is unbalanced and that Barnard is not a responsible bidder. Staff is reviewing the protest and anticipates that it will be resolved prior to the SFMTA Board's consideration of contract award. Staff will report the status of Dragados' protest when the contract is presented to the SFMTA Board of Directors for consideration for award.

### RECOMMENDATION

Staff recommends that the SFMTA Board of Directors award San Francisco Municipal Transportation Agency Contract No. 1252, Third Street Light Rail Program, Phase 2 Central Subway – Tunneling, to Barnard Impregilo Healy, as the lowest responsive and responsible bidder in the amount of \$233,584,015.00. Staff further recommends that the Board of Directors authorize the Executive Director/CEO to exercise at his or her discretion either or both of the options for an Owner Controlled Insurance Program and for a temporary retrieval shaft.

#### SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY BOARD OF DIRECTORS

#### RESOLUTION No.

WHEREAS, The Final Environmental Impact Statement/Environment Impact Report (Final EIR/EIR) for the two-phase Third Street Light Rail Project (the "Project") was completed in November 1998; and,

WHEREAS, The former Public Transportation Commission approved Resolution No. 99-009 on January 19, 1999 which adopted the environmental findings pursuant to the California Environmental Quality Act (CEQA) for the Project, including mitigation measures as set forth in the Project's Final Environmental Impact Report and Mitigation Monitoring Report; and,

WHEREAS, Design and construction of the 1.7-mile Central Subway ("Central Subway Project") is Phase 2 of the Third Street Light Rail Transit Project; and,

WHEREAS, The SFMTA Board of Directors adopted Resolution No 08-029 on February 19, 2008, selecting Alternative 3B, Fourth/Stockton Alignment with semiexclusive surface rail operations on Fourth Street as the modified LPA; and,

WHEREAS, The City of San Francisco Planning Commission adopted Motion No. M-17668 on August 7, 2008, certifying completion of the Central Subway Final Supplemental Environmental Impact Report; and,

WHEREAS, On August 19, 2008 the SFMTA Board of Directors approved Resolution No. 08-150, adopting Central Subway Project Alternative 3B, Fourth/Stockton Alignment with semi-exclusive surface rail operations on Fourth Street and a construction variant to extend the tunnel another 2,000 feet north of Jackson Street, the CEQA Findings and Statement of Overriding Considerations for the SEIS/SEIR and the Mitigation Monitoring and Reporting Plan; and,

WHEREAS, On February 24, 2011, in accordance with the San Francisco Municipal Transportation Agency (SFMTA) Board of Director's Resolution No. 09-191 delegation of authority over contracting, a memorandum notification was submitted to the Board indicating that the Executive Director/CEO had authorized a bid call for SFMTA Contract No. 1252, Third Street Light Rail Program, Phase 2 Central Subway – Tunneling; and,

WHEREAS, On June 8, 2011 six bids were received and publicly opened; and,

WHEREAS, The funding for work under Contract No. 1252 is to be furnished from federal, state and local sources; and,

WHEREAS, The Contract Compliance Office has established a 6 percent SBE goal for this contract; and,

WHEREAS, Contract No. 1252 will assist SFMTA in meeting the objectives of Goal No. 1 of the Strategic Plan – to provide safe, accessible, clean, environmentally sustainable service and encourage the use of auto-alternative modes through the Transit First policy; Goal No. 2 – to improve transit reliability; Goal No. 3 – to improve economic vitality through improved regional transportation; and Goal No. 4 – to ensure the efficient and effective use of resources; now, therefore, be it

RESOLVED, That the SFMTA Board of Directors awards Contract No. 1252, Third Street Light Rail Program, Phase 2 Central Subway – Tunneling to Barnard Impregilo Healy Joint Venture in an amount not to exceed \$233,584,015 with a contract term of 1150 calendar days including bid options;, and be it

FURTHER RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors authorizes the Executive Director/CEO to execute the contract with Barnard Impregilo Healy Joint Venture, and to exercise in his or her discretion either or both of the options described in the Contract Documents.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of \_\_\_\_\_

> Secretary to the Board of Directors San Francisco Municipal Transportation Agency

### ENCLOSURE 2 THIRD STREET LIGHT RAIL PROJECT CENTRAL SUBWAY

# San Francisco Municipal Railway Contract No. 1252

# Project Budget and Financial Plan

Cost	(\$Million)
Conceptual and Preliminary Engineering	59.41
Program Management & Construction Management	132.78
Final Design	85.94
Construction Contracts	986.68
Vehicles	26.39
Contingency	160.26
Right-of-Way	34.84
Other Professional Services	92.00
Total Central Subway Cost	\$ 1,578.30

Funding	(\$Millions)
Federal 5309 New Starts	942.20
State RTIP Grant	88.00
CMAQ	6.03
State TCRP Grant	14.00
Proposition 1B-2006 MTC Share	100.00
Proposition 1B-MTA Share	100.00
Proposition Additional 1B-MTA Share	40.00
Proposition K Sales Tax Funds	123.98
High Speed Rail Funds	27.00
Option Local and Regional Sources	137.09
Total Central Subway Funding	\$ 1,578.30