



# **Construction Update**

March 2016

Transbay Transit Center





# Transbay Transit Center

Western Zone
Gridlines 1 to 10

Central Zone Gridlines 10 to 20

Eastern Zone Gridlines 20 to 35

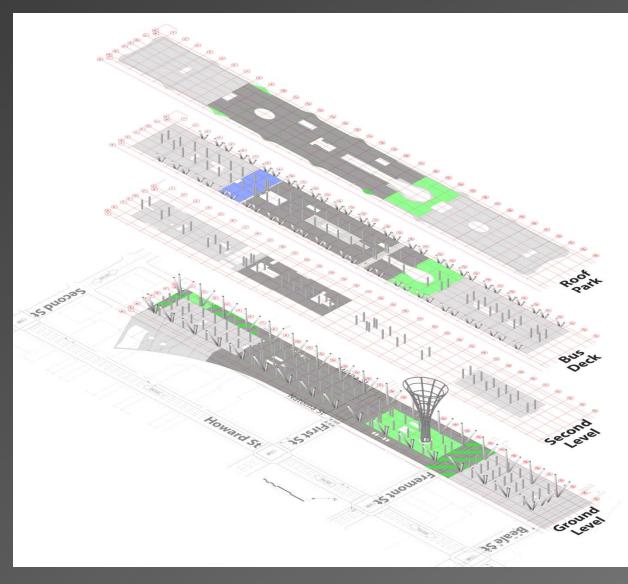


# Project Overview

- 1. Recent Activity
- 2. Upcoming Activity
- 3. Schedule
- 4. Contingency Cost
- 5. Safety
- 6. Challenges

# **Recent Activity**

# **Transit Center**



**Transbay Transit Center Construction Progress** 

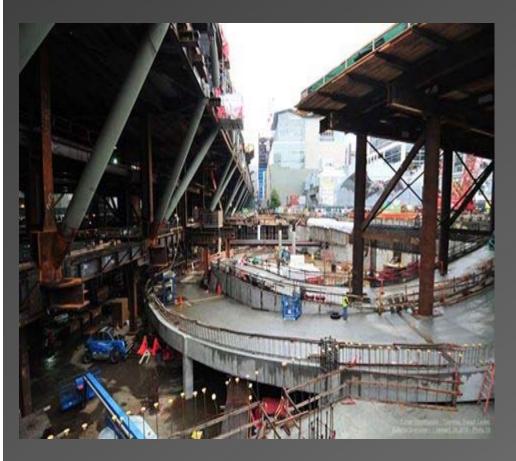
Jan 29, 2016 - Feb 27, 2016

Work Completed Between 1/29/16-2/27/16

**Concrete Slab** 

10" Structural Slab (Bus Deck Only)

**In Progress** 



# Western Zone (GL 1-10)

- Structural steel assembly, welding and metal decking are complete.
   This zone is turned over to the follow on trades.
- Structural Concrete pours for the north trainbox lid (Eyebrow) are continuing.
- The concrete columns and walls for the Vehicle and Bicycle Ramps are in progress.

# Central Zone (GL 10-20)

- Fireproofing continues on the Lower Concourse, L2 Mezzanine and Bus Deck levels.
- Mechanical, Electrical, Plumbing and Fire Sprinkler (MEPF) trades continue with piping and HVAC duct work at all levels.
- Waterproofing of the ground level slab has commenced.
- Stair installation continues (Six of twenty-four stairs complete.)



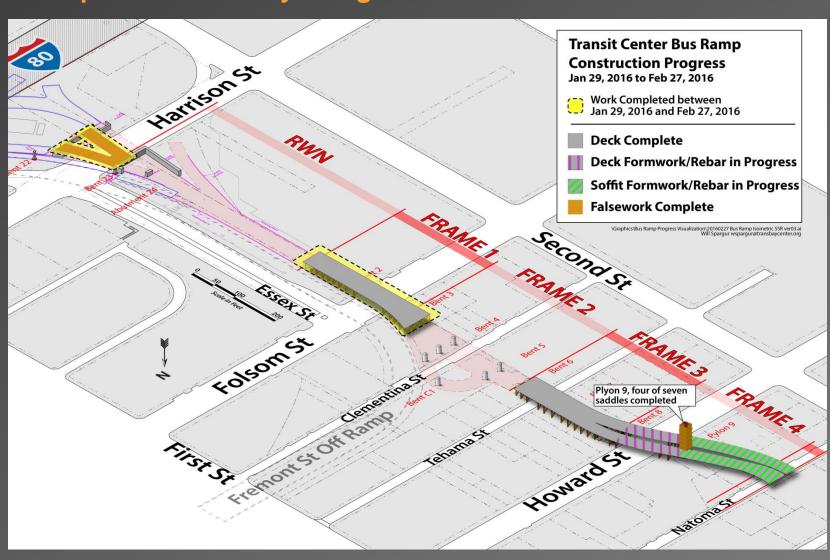


# Eastern Zone (GL 20-35)

- Installation of structural steel was completed on January 8<sup>th</sup>.
- Structural steel welding and bolting continues.
- Concrete pours for the decks on all levels along with the perimeter and scallop walls are continuing.
- Ground Level concrete slab (beneath Fremont Street) pour scheduled mid-March.

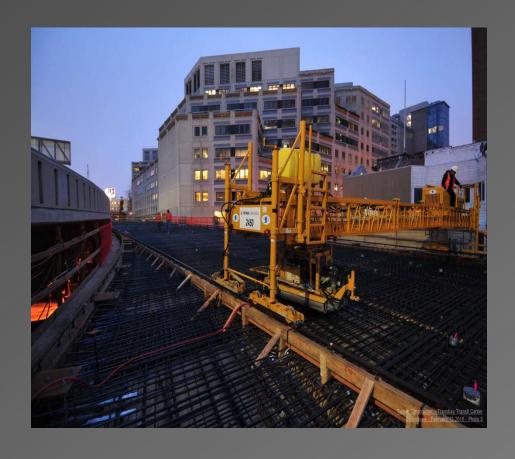
# **Recent Activity**

# **Bus Ramp and Cable Stay Bridge**



# Bus Ramp Bridge

- Harrison Street viaduct falsework was installed in February while abutment and retaining walls continue to be constructed.
- Concrete placement of the viaduct deck over Folsom Street was completed in February.
- Reinforcing steel and preparation for the Cable Stay Bridge and pylon 9 over Howard Street continues.





# **Upcoming Activity**





# Central Zone

- Start the W-1 Exterior Awning system install.
- Continue with MEPF Piping overhead.
- Bus Deck perimeter concrete crash wall continues.
- Waterproofing of Ground Level slab continues and bus deck slab starts.

# Eastern Zone

- Complete welding of all structural steel and installing metal decking by the end of April.
- Continue rebar placement and concrete deck pours.

BAY BRIDGE

# **Upcoming Activity**



FRAME 1

95'-0"

130'-0"

110'-0"

111'-0"

CLEMENTINA STREET

# Bus I

# Western Zone

- Complete welding and turnover the rooftop restaurant.
- Continue rebar placement and concrete decks, GL1-GL-8.

# Bus Ramp and Bridge

- Remove Falsework from the Tehama Street overcrossing.
- Install Falsework over the Clementina Street overcrossing.

# **Schedule**

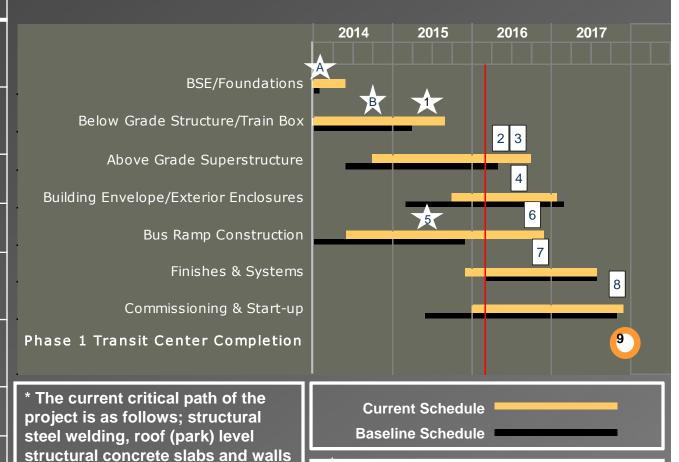
= Completed Work; A) TG03 excavation through "rat" slab installation (re-bracing complete 9/18/15).

B) mat foundation slabs complete 10/11/14.

1) TG 6.0 Below Grade Concrete complete 8/10/15.5) Bus Ramp below grade concrete July 2015.

#	Milestone	Current
*	Complete TG 6.0 Below Grade Concrete	Actual Aug. 2015
2	Complete Structural Steel Erection and Welding	Q2 2016
3	Complete Above Grade Concrete	Q3 2016
4	Building Watertight	Q3 2016
**	Complete Bus Ramp Below Grade Concrete	Actual Jul. 2015
6	Complete Bus Ramp Viaduct and Cable Stay Bridge	Q4 2016
7	Permanent Power to Building	Q4 2016
8	Building Ready for Bus Driver Training	Q4 2017
9	Substantial Completion	Q4 2017

and glass floor.



# **Contingency Cost**

#### **Contingency Tracking (\$millions)**

	Construction Contingency	CM/GC Contingency		Total Contingency & Reserve
Baseline Budget Amounts (Nov 2015)	\$59.5	\$30.7	\$5.0	\$95.1
Contingency Usage Through Jan 2016	(\$9.8)	(\$0.1)	(\$1.1)	(\$11.0)
Remaining Baseline Budget Amounts (Jan 2016)	\$49.7	\$30.6	\$3.9	\$84.1
Total Draws/Adds Feb 2016	(\$0.0)	0.0		(\$0.0)
Remaining Balances	\$49.7	\$30.6	\$3.9	\$84.1

Uses of Contingency this period

Miscellaneous Bus Ramp Change Orders

Pending Change Orders: \$1,639,151.35

# **Safety Statistics**

# **Recordable & Lost Time Incidents:**

Recordable Incidents this Feb. 2016 Period:	0	Lost Time Incidents this Feb. 2016 Period:	0
WOJV Average Recordable Incident Rate	4.35	Nat'l./ State Average Recordable Incident Rate:	3.43
WOJV Average Lost Time Incident Rate:	0.75	Nat'l./ State Average Lost Time Incident Rate:	1.85

# **Craft Hours:**

Total Transit Center Craft Hours through February 2016:	Increase since last update:	Total 2016 Craft Hours:
2,073,110	64,911	143,783

# Schedule

Contractor forecast, without mitigation, indicates slippage of 2 to 4 months.

#### Mitigation Strategy

- 1. Strategic overtime work related to concrete curbs implemented to support timely glass curtain wall system installation.
- 2. Initiated team meetings with early focus on commissioning and close out processes in effort towards earliest discovery of problems to maximize resolution on mitigation timeline.
- 3. CM/GC is engaging subcontractors for schedule forecasting refinement and mitigation opportunities.

# **Buy America**

Compliance efforts.

#### Mitigation Strategy

- 1. Extensive effort by TJPA design and construction team to validate subcontractors certification of Buy America procurement.
- 2. Consorted effort by TJPA design and construction team to identify and address any items specified that need resolution regarding Buy America compliance.

# Multi-Trade Influx Onsite

Expected onboarding of many more Trades require sharpened processes.

#### **Mitigation Strategy**

- Restructured Leadership Team meetings to expeditiously address elevated issues to avoid costly delays or scope changes.
- Streamlined TJPA design and construction teams members ability to address risk and issues at meetings by personally participating in technical problem solving sessions at key levels of the organization

#### **Potential Claims**

To date all potential claims submitted to date have been rejected by CM/GC and CMO, lacking merit.

#### **Resolution Strategy**

- 1. Personal participation in technical problem solving sessions brings clarity to issues and timely resolution thus reducing claims.
- 2. Actively reviewing issues with TJPA and CM/GC legal representatives.
- 3. Subcontractor has requested DRA process to address merit of potential claims. Project Team scheduling DRA meeting.

#### **Financial Constraints**

Potential Adverse Impact on Construction Workflow

#### Mitigation Strategy

- 1. Pursuing additional financing with funding partners to ensure construction stays on schedule.
- 2. Provide close scrutiny of change orders and changes in scope (including materials and staffing levels) to achieve efficiency and reduce construction costs.
- 3. Continue to seek ways to improve the process to shorten the payment cycle to subcontractors & vendors.

