



# Construction Update

November 2016

## Transbay Transit Center

**TJPA**



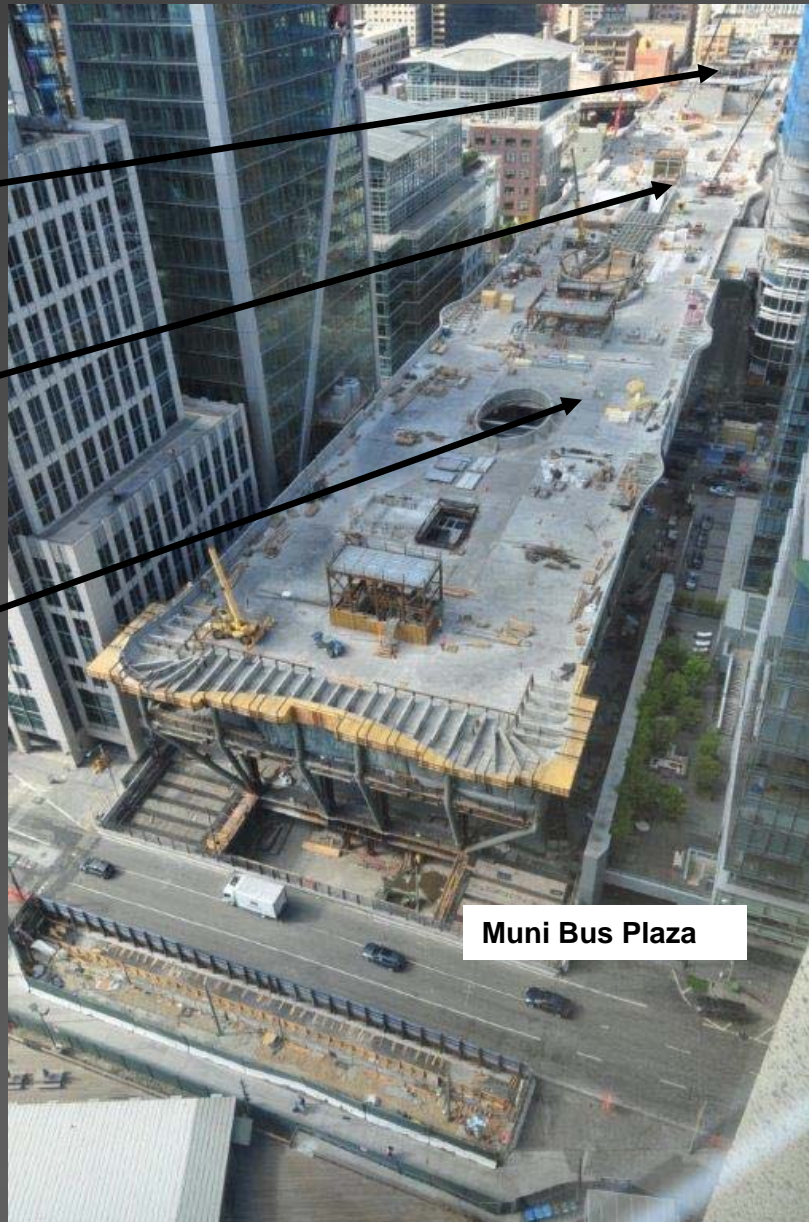


## Transbay Transit Center

Western Zone  
Gridlines 1 to 10

Central Zone  
Gridlines 10 to 20

Eastern Zone  
Gridlines 20 to 35



Muni Bus Plaza







# Project Overview

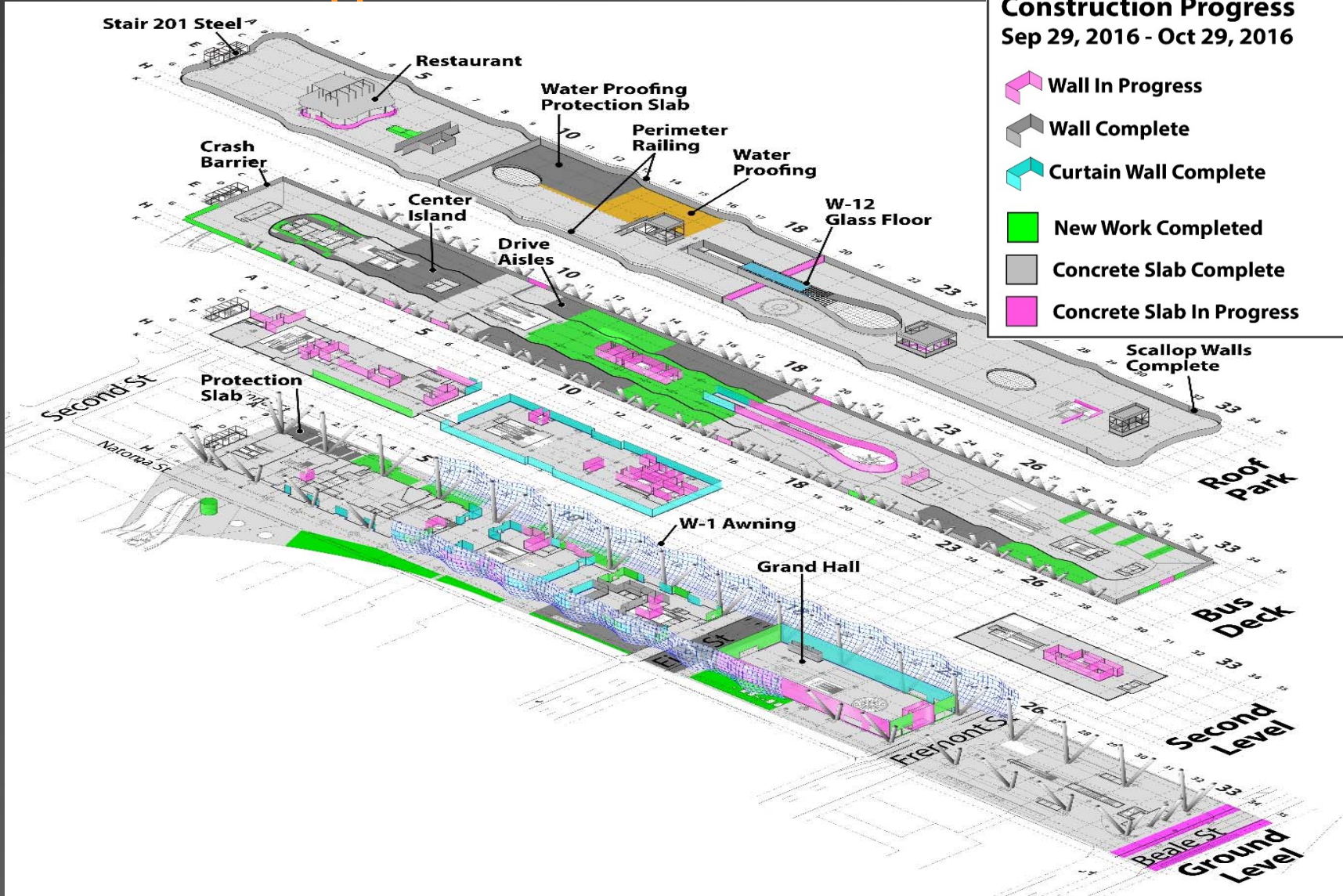
1. Recent Activity
2. Upcoming Activity
3. Safety & Labor Statistics
4. Budget Overview
5. Contingency Cost
6. Schedule
7. Challenges



Transit Center – Upper Levels

**Transbay Transit Center Construction Progress**  
Sep 29, 2016 - Oct 29, 2016

-  Wall In Progress
-  Wall Complete
-  Curtain Wall Complete
-  New Work Completed
-  Concrete Slab Complete
-  Concrete Slab In Progress

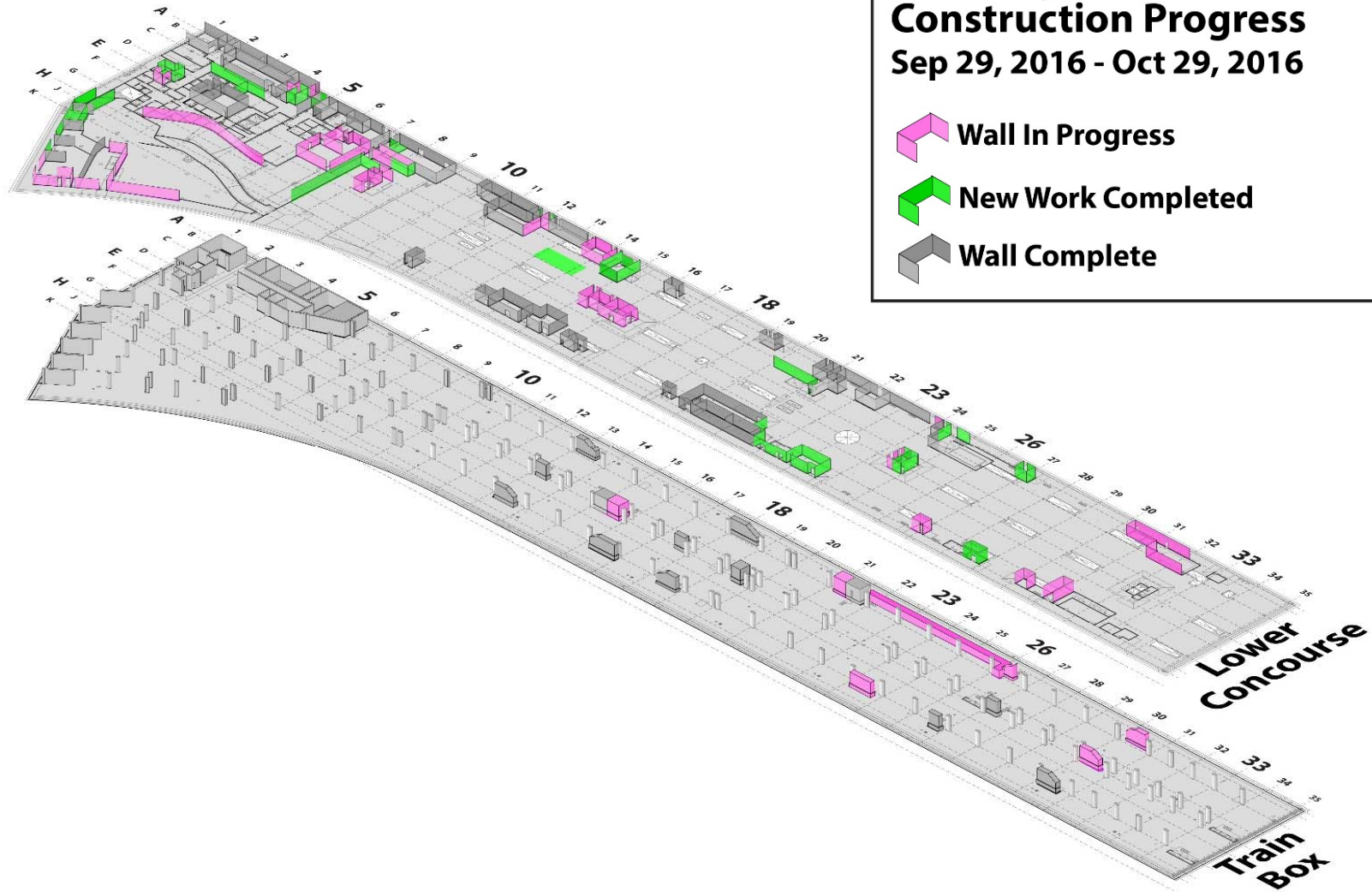




## Transit Center – Concourse and Train Level

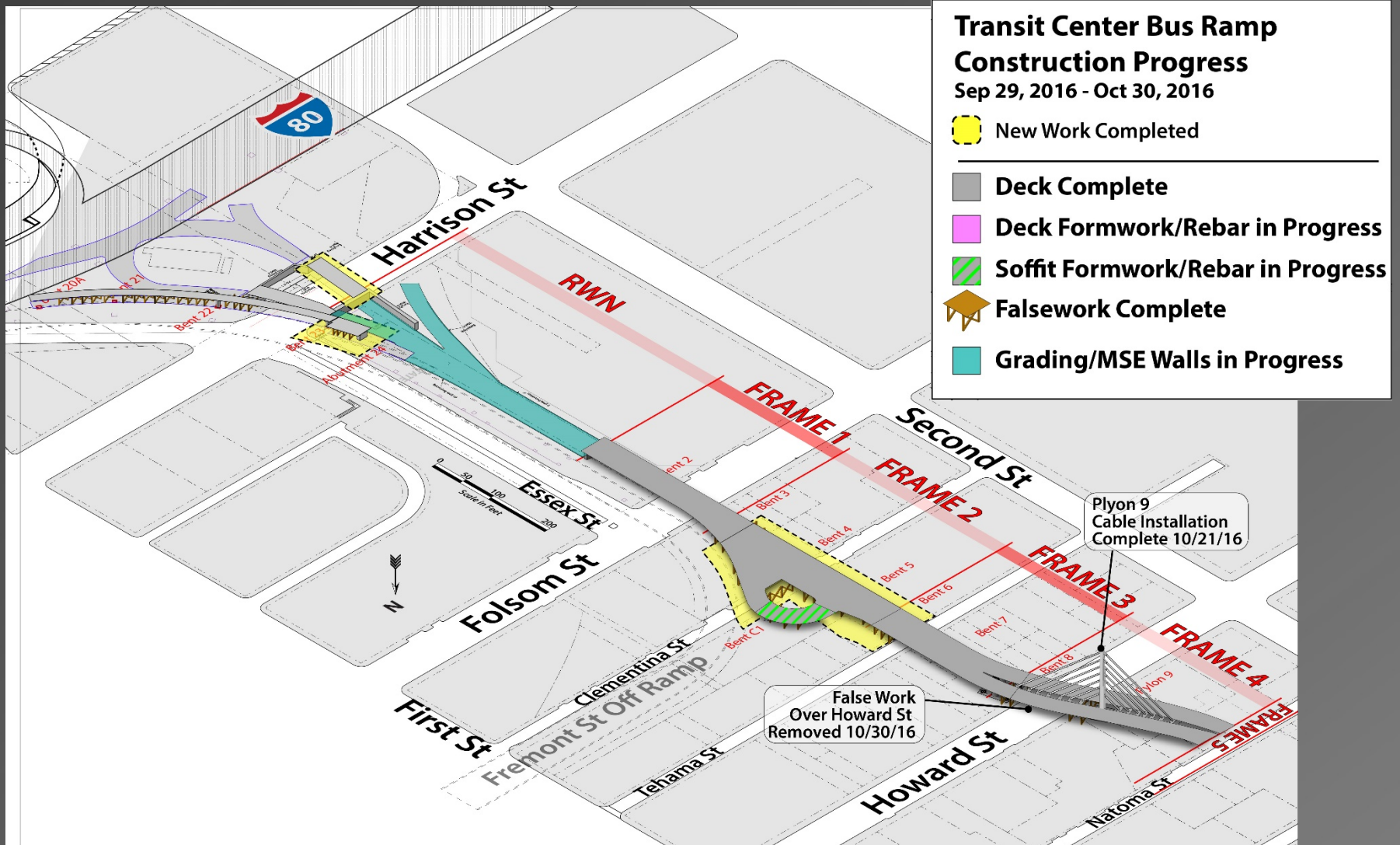
**Transbay Transit Center  
Construction Progress  
Sep 29, 2016 - Oct 29, 2016**

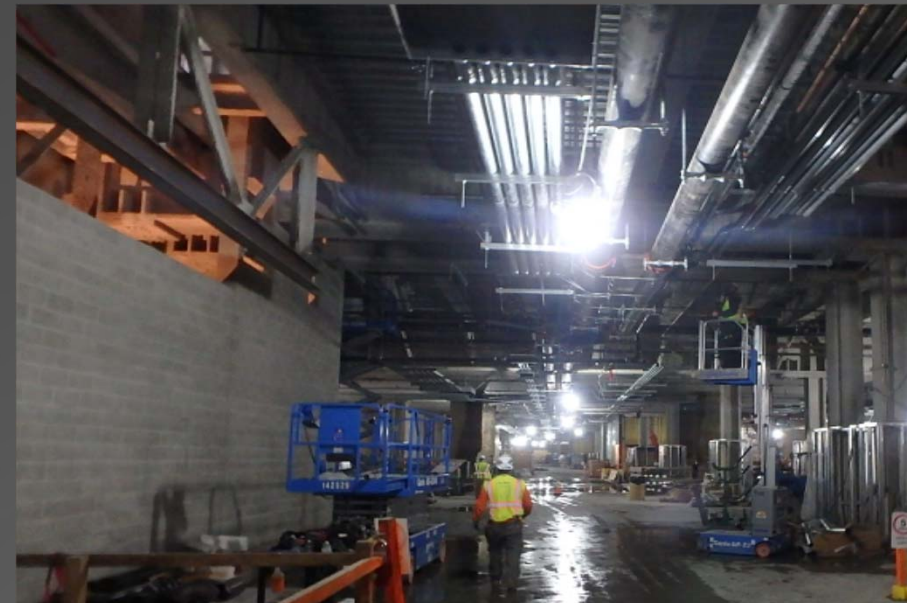
-  Wall In Progress
-  New Work Completed
-  Wall Complete





## Bus Ramp and Cable Stay Bridge





## Western Zone (GL 1-10)

- Western Skylight framing delivered and being assembled.
- Bus Deck waterproofing, curbs and drive aisle concrete continues.
- Glass Curtain Wall continues at Ground Level and Level 2.
- Mechanical/Electrical/Plumbing/Fire Sprinkler (MEPF) hangers and systems installation continues all levels.
- Electrical switchgear and transformer equipment delivered to site.
- Concrete Masonry Unit (CMU) wall installation nearing completion.



## Central Zone (GL 10-20)

- Rooftop Waterproofing system being installed with protection slab pour following closely behind.
- Rooftop Glass Floor glazing panels completed in Central Zone.
- Rooftop Glass Canopy framing at Escalator 407/408 has commenced.
- Bus Deck Glass Curtain wall around the main Escalator 407/408 framing and glazing being installed.
- All levels continue with MEPF hangers and systems installation.
- Electrical switchgear and transformer equipment delivered to site.





## Eastern Zone (GL 20-35)

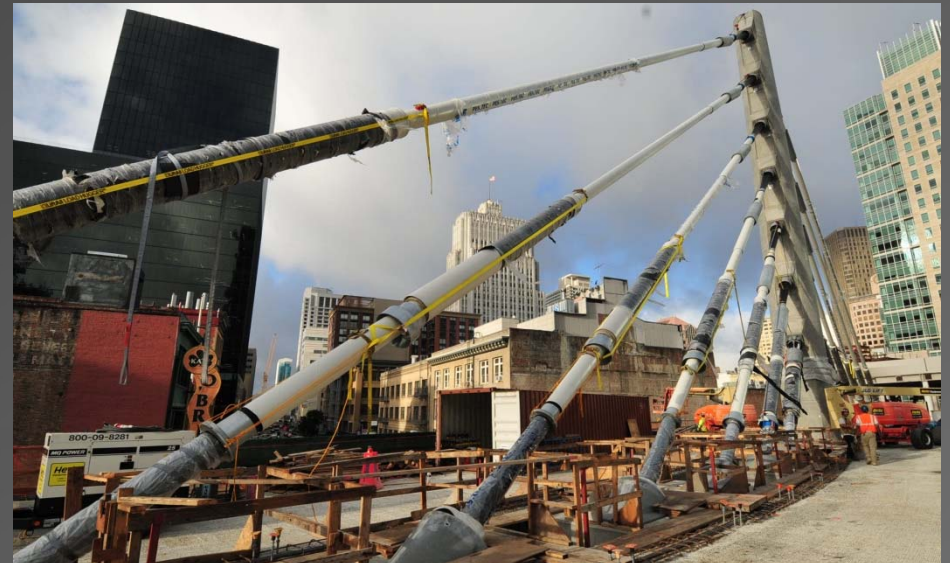
- Rooftop Glass Floor glazing panels continue to be installed.
- Light Column Skylight framing delivered and being assembled.
- Exterior Awning installation continues in the Eastern Zone west of Fremont St.
- Bus Deck waterproofing, curbs and drive aisle concrete continues.
- Bus Deck crash Bollards delivered.
- Grand Hall Glass Curtain walls framing and glazing work continues.
- The last structural concrete Trainbox pour under Beale St. occurred on Nov. 4th.
- Lower Concourse and Trainbox MEPF continues.





## Bus Ramp Bridge

- Cable Stay Bridge specialty contractor, VSL, completed all 7 of 7 cable installations. Falsework was removed @ Howard Street.
- Drop-in span connection to Transit Center is fabricated with installation beginning the week of Nov. 7th.
- Mechanically Stabilized Earth (MSE) and retaining wall work progressing.
- Viaduct Frame 2 concrete deck @ Clementina St. was poured in October.





### Western Zone

- Continue Rooftop Restaurant concrete.
- Continue Roof miscellaneous concrete.
- Complete Bus Deck waterproofing and concrete for drive aisle and passenger island concrete.
- Set Switchgear & Transformers.
- Continue MEPF at all levels.

### Central Zone

- Complete Rooftop Waterproofing north section including the protection slab.
- Complete Rooftop Glass Floor glazing.
- Complete the Bus Deck waterproofing.
- Complete Bus Deck curbs/drive aisle/passenger island concrete.
- Set Switchgear & Transformers.
- Continue MEPF at all levels.

### Eastern Zone

- Complete Rooftop Glass Floor glazing.
- Complete Rooftop Light Column skylight framing.
- Continue Bus Deck waterproofing and concrete for drive aisle and passenger island concrete.
- Continue Grand Hall glass curtain wall.

### Bus Ramp Bridge

- Set the armor for the Cable Stay Bridge cables.
- Start erection of the Frame 5 steel span early November.
- Pour the Stem & Soffit concrete of the Bus Ramp turnaround mid November.
- Continue MSE and retaining wall construction between Folsom and Harrison Streets.



## Recordable & Lost Time Incidents:

Recordable Incidents in October time period:	0	Lost Time Incidents in October time period:	1
Total Recordable Incidents in 2016:	8	Total Lost Time Incidents in 2016:	1
WOJV Average Annual Recordable Incident Rate 2011 Through 2015	4.35	WOJV Average Annual Lost Time Incident Rate 2011 Through 2015:	0.75
Nat'l./ State Annual Average Recordable Incident Rate 2011 Through 2015:	3.43	Nat'l./ State Annual Average Lost Time Incident Rate 2011 Through 2015:	1.85

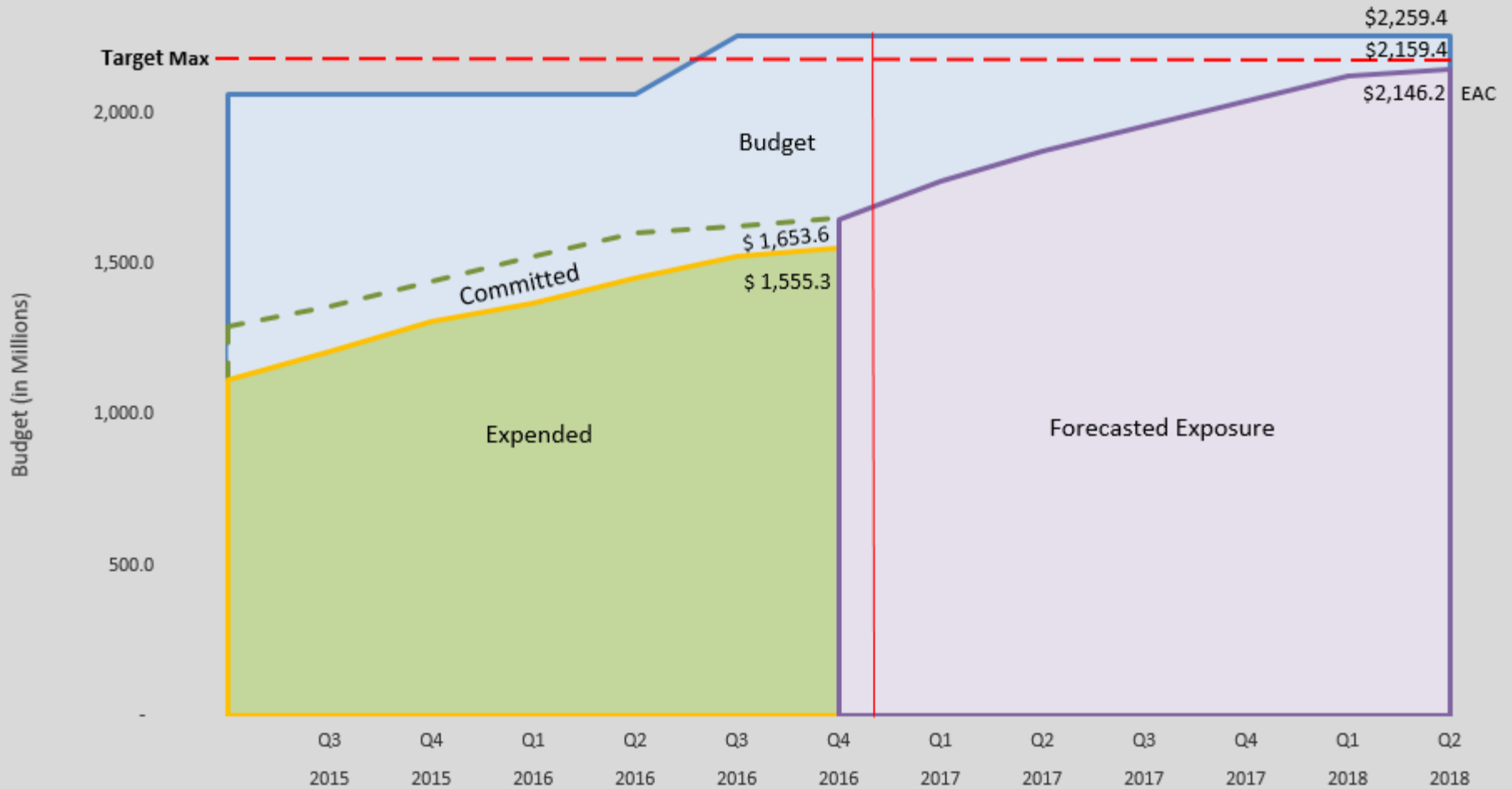
## Craft Hours:

Total Transit Center Craft Hours through Oct. 2016:	Increase since last update:	Total Year 2016 Craft Hours:
2,720,805	75,919	794,478



## Phase 1 Transbay Transit Center

Data thru: September 16



69% Program Budget  
83% Contract Time



## Contingency Tracking (\$millions)

	Construction Contingency	CM/GC Contingency	Program Reserve	Total Contingency & Reserve
Baseline Budget Amounts	\$61.8	\$32.5	\$116.9	\$211.3
Contingency Usage Through Sep 2016	(\$11.6)	(\$0.8)	\$8.0	(\$4.4)
Remaining Baseline Budget Amounts (Sep 2016)	\$50.2	\$31.7	\$124.9	\$206.9
Total Draws/Addds Oct 2016	(\$0.1)	(\$0.0)	\$1.5	\$1.4
Remaining Balances	\$50.1	\$31.7	\$126.4	\$208.3

### Uses of Contingency this period

- Misc. changes to TG10.4 - Electrical.
- Savings from TG27.2 bid package award added to Program Reserve.

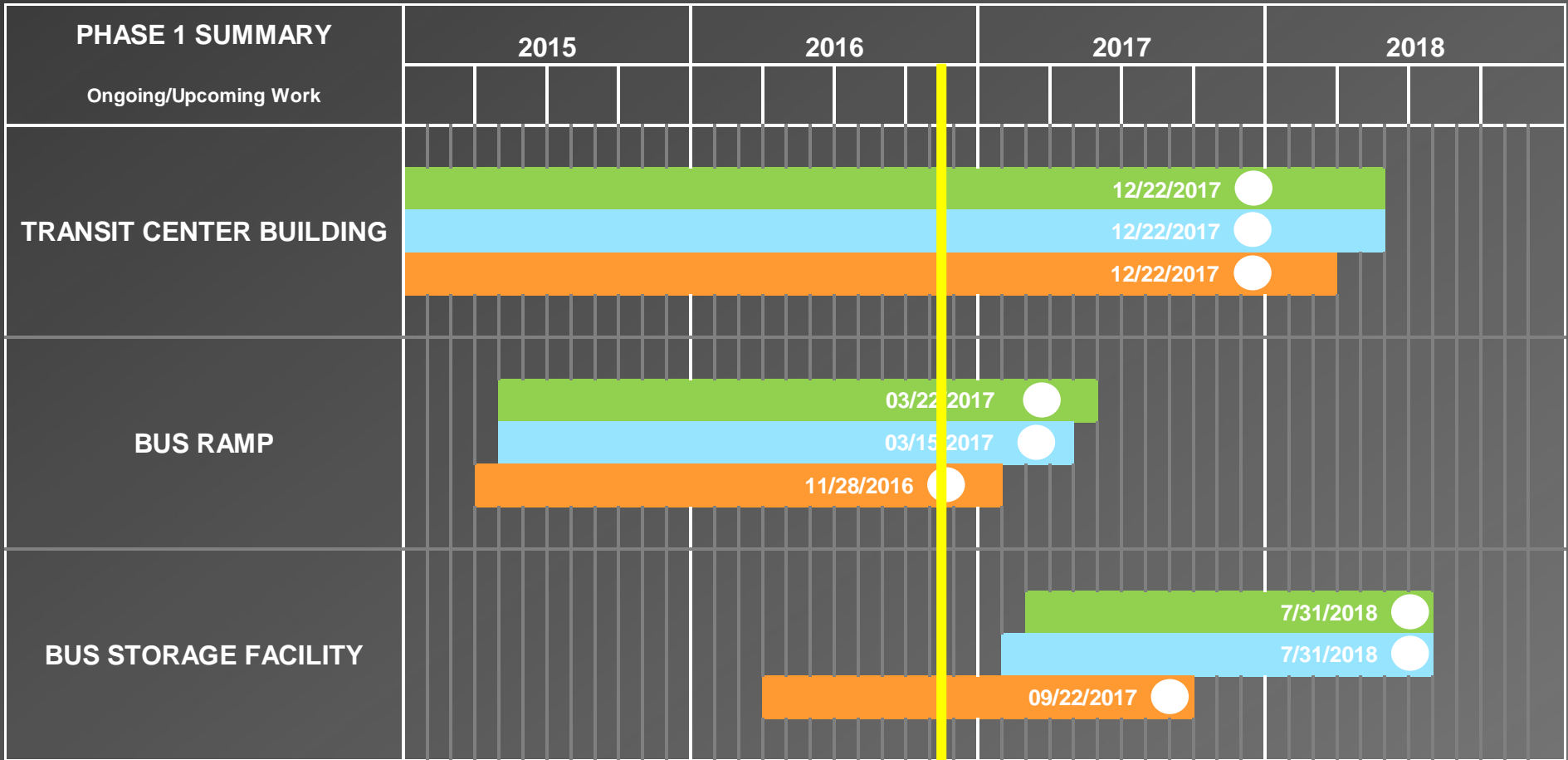
### Forecasted Contingency Use

- CM/GC: \$0.2
- Construction: \$2.7
- Program Reserve: \$0



# Transbay Transit Center

# Schedule



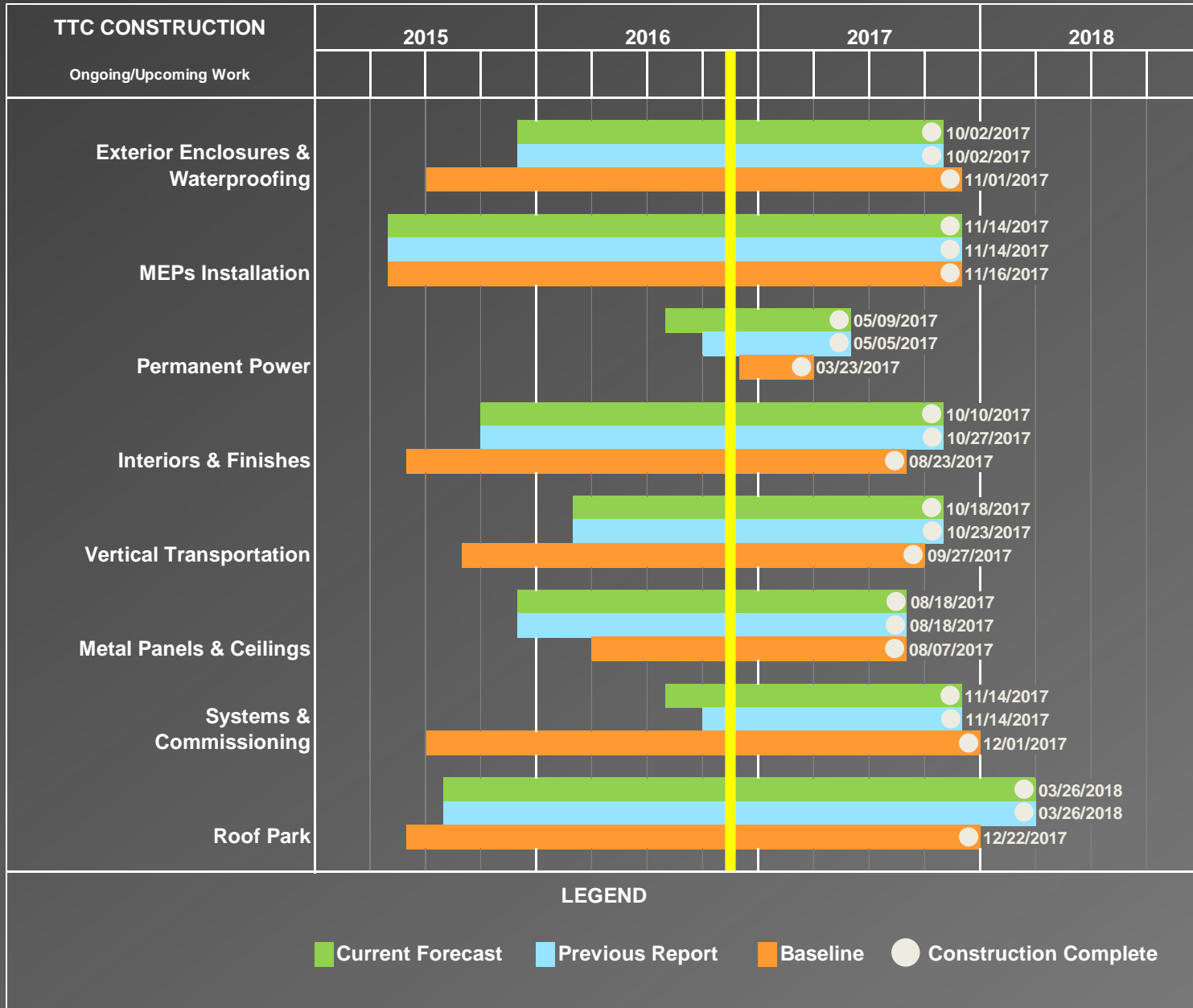
### LEGEND

- Current Forecast
- Previous Report
- Baseline
- Substantial Completion



# Transbay Transit Center

# Schedule





## Planning and Construction

- Formal lease and MOU being drafted to reflect CTC agreement for 85% reduction in lease rate.
- BSF Bidding Period: 12/8/16 - 2/8/17
- Archaeology Field work : 2/13/17 - 4/10/17
- Anticipated Contract Award: 3/9/2017
- Construction Duration: 14-18 months (range due to A+B bid process)
- BSF anticipated opening is Fall 2018 (after the Transit Center operations have commenced).





## Schedule

Contractor Forecast has stabilized with established Recovery Schedule.

### Mitigation Update

1. Strategic overtime work and resequencing around Grand Hall continues.
2. Additional acceleration opportunities in discussion as we introduce more MEP and Finish Trades on site.
3. Introduced a degree of prefabrication of Terrazzo Floor divider pattern to improve quality and reduce trade work congestion at Grand Hall.



## Operational Readiness

### Concerns:

1. Master Lessee Delayed On-Boarding Impact.
  - Building Systems Commissioning.
  - Building Systems Testing, Training and Hand Off.
2. Timely Transit Operator's Transition.
  - Route "Sign-On" & Driver Training Schedules.
  - Transit Operator's Tenant Improvements, Fixtures, Furniture, & Equipment.

### Mitigation Strategies:

1. Master Lessee engagement first quarter 2017 – January preferred.
2. Transit Operator Transition Teams Formulated.
3. Bi-weekly Transition Planning Meetings Initiated.
4. Elevate Attention and Granularity of Transition Plan Nov. 2016 through 2017.

