

# Update on Construction and temporary closure of the Salesforce Transit Center

February 14, 2019



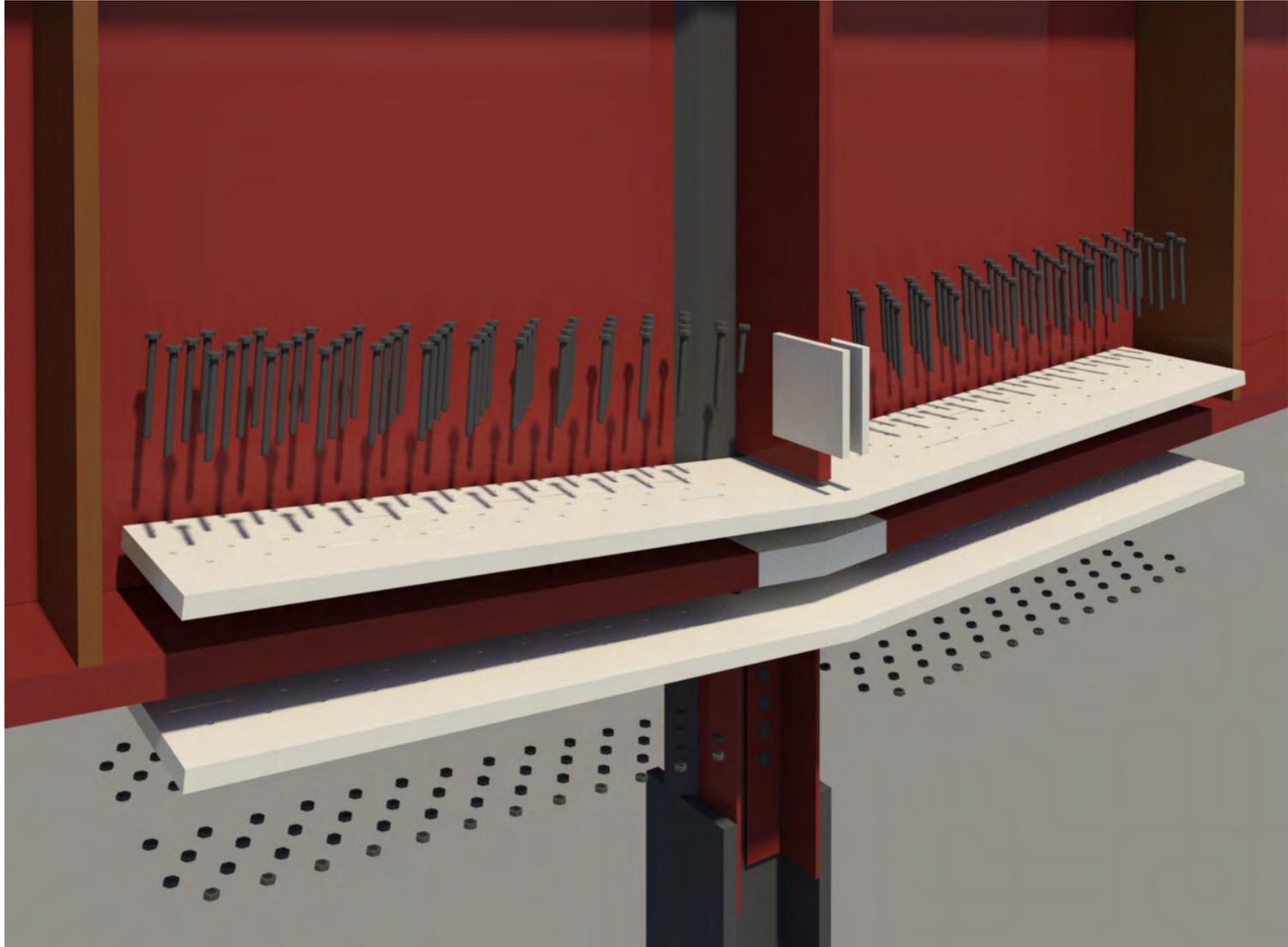
# Agenda

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1. Progress on the Girder Remediation/Repair Effort (Dennis)
2. Progress on confirming the Facility-Wide Validation (Ron)



# Girder Remediation Detail



This graphic has details specific to Fremont street girders

# Recent Actions

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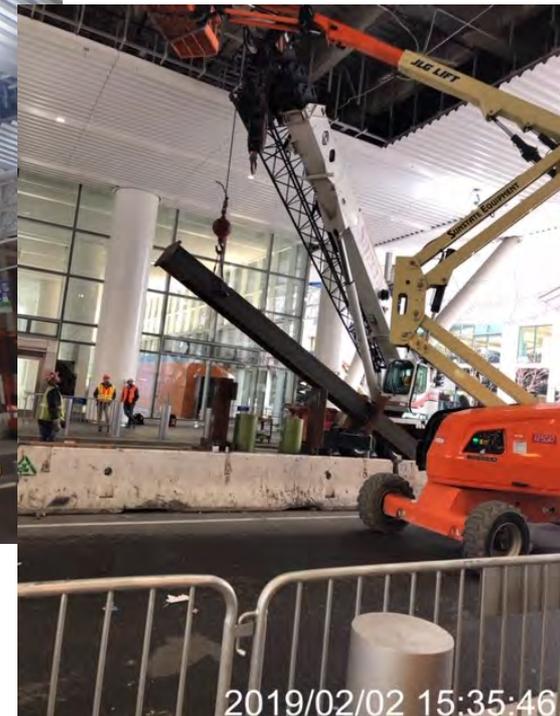
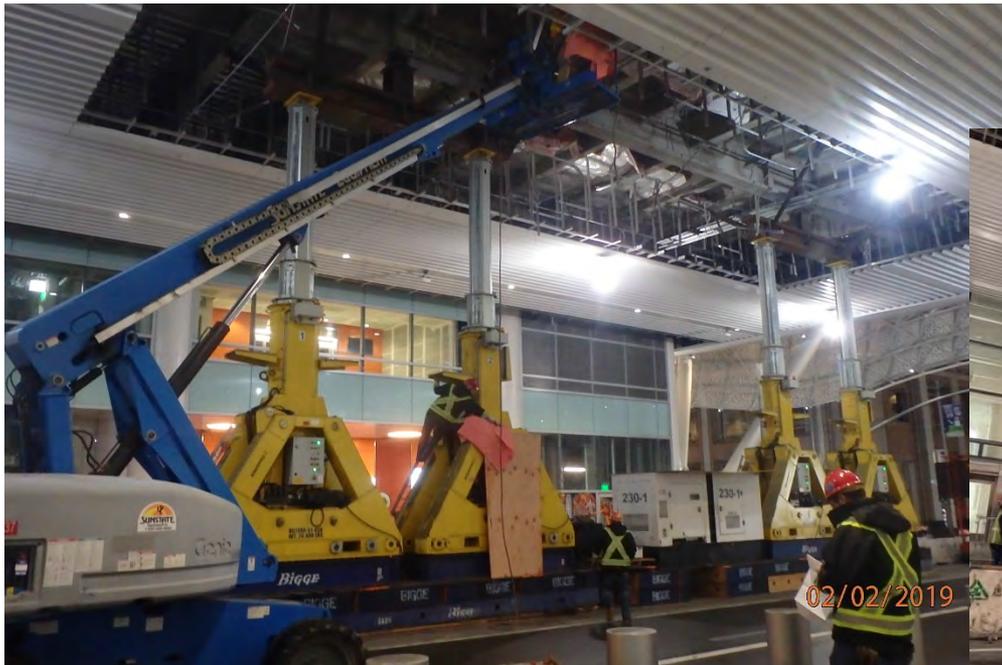
Actions taken since last Board meeting:

- Fremont and First Street remediation material being machined.
- Initial preparation of Fremont street girders has begun.
- Temporary jacks at First Street replaced with steel column shoring.
- Contractor schedule update indicates repair completion no later than June.

# Recent Actions

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Steel column shoring installed at First street in preparation for the permanent plate installation.



# Recent Actions

Sample plate being tested at LPI lab



# Next Steps

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February 2019 actions:

- Finite Element Analysis (FEA) to be presented to PRP.
- Project Team\* continuing their building-wide review to ascertain if other areas need further review and/or inspections.

March 2019 actions:

- Project Team\* continues building-wide document and field review.
- Materials arrive onsite.
- Commencement of the Fremont and First street remediation.

Repair/Remediation expected to be completed by June.

# Schedule

	January				February				March				April				MAY			
	1/4	1/11	1/18	1/25	2/1	2/8	2/15	2/22	3/1	3/8	3/15	3/22	4/5	4/12	4/19	4/26	5/3	5/10	5/17	5/24
<b>MTC ONGOING PEER REVIEW</b>																	<b>ONGOING</b>			
<b>DESIGN FIRST STREET REMEDIATION</b>																				
<b>MTC PEER REVIEW FOR REMEDIATION (First Street)</b>																				
<b>PERMANENT FIX INSTALLATION</b>																				
Procurement & Installation																				
<b>SHORING REMOVAL</b>																				
<b>REINSTALLATION OF SYSTEMS, FINISHES &amp; CEILINGS</b>																				
<b>PROJECT TEAM BUILDING-WIDE REVIEW</b>																				
<b>MTC PEER REVIEW BUILDING-WIDE VERIFICATION</b>																				
<b>ONSITE BUILDING STRUCTURAL HEALTH CHECK</b>																				

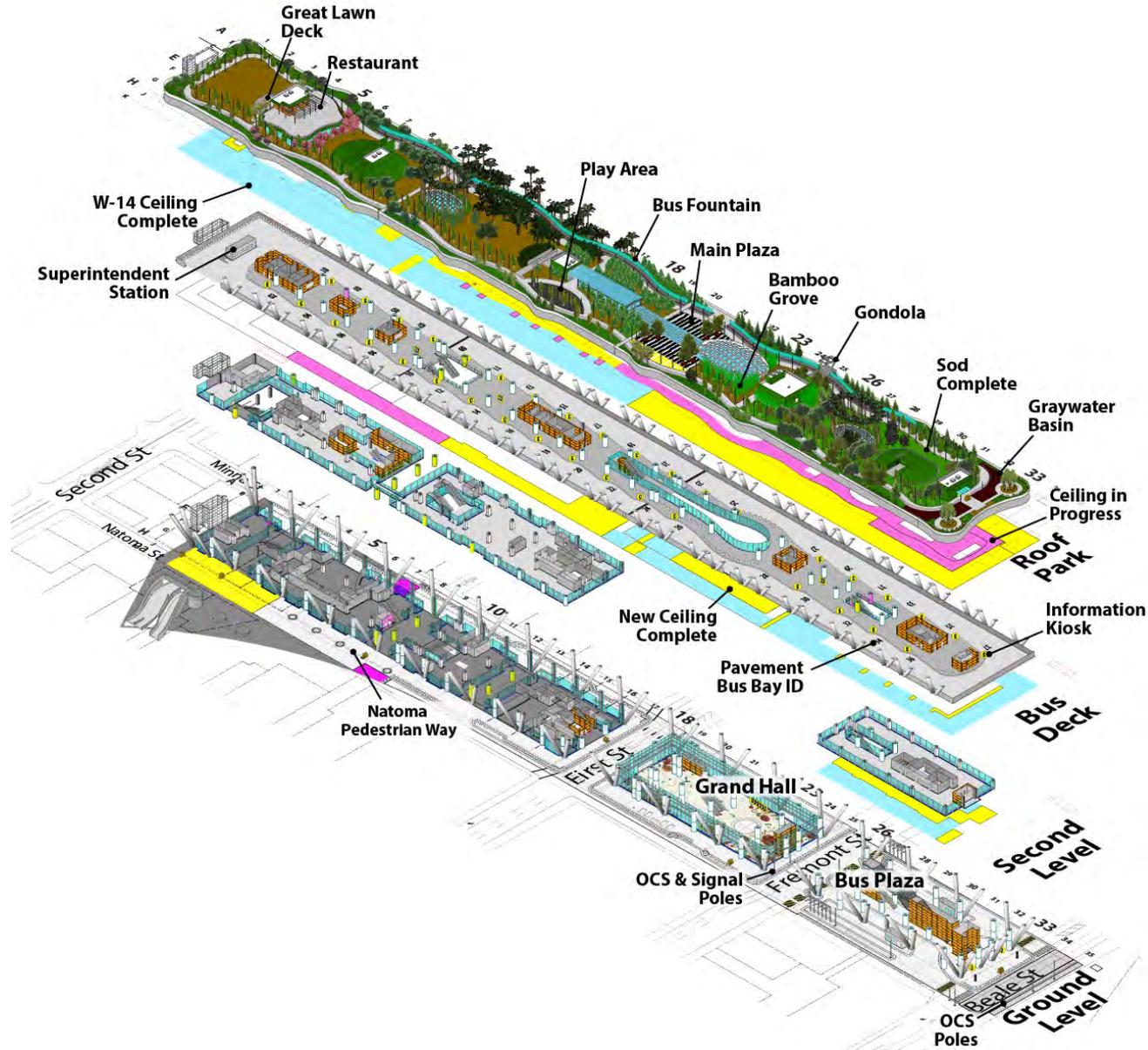
# Ongoing Actions

## Full Building Structural Health Check

Progression through the successive sieves of the funnel help separate areas which require further research to confirm to be acceptable.



# Facility-Wide Validation Framework



# Facility-Wide Validation Framework

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- Reaffirm Structural Integrity of Building
- Revalidate Full Fire & Life Safety Systems completed in May
- Review Tests & Inspection Records completed in March
- Building Management Systems Commissioning completed in April
- Re-Occupancy Readiness Strategy

# Facility-wide Validation Framework

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- Reaffirm Structural Integrity of Building
  - Complete Engineering Findings & Reports
  - Fracture-related Investigations
    - Complete PRP Remediation Recommendations
    - Follow PRP Building Evaluation Criteria
- Revalidate Full Fire & Life Safety (F&LS) Systems
  - SFFD and Project Team established parameters for Fire & Life Safety Systems Recertification
  - Restoration of Localized Interruptions Created by Girder Work underway with activation of various zones scheduled to occur between February and May

# Facility-wide Validation Framework

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- Review Tests and Inspections
  - Concrete Placement Inspection Reports Review
    - 34,240 Test Cylinders were taken
    - All reviewed and accepted with exception of one pending paperwork
  - Validated all compaction tests for structural concrete
  - Review Field Condition Reports (FCR's) and Non-Compliance Reports (NCR's)
  - Current FCR/NCR Stats:
    - There were 4,647 NCRs/FCRs written to date
    - No Systemic or new issues identified during records review
    - Continue FCR and NCR Process through remediation efforts

# Facility-wide Validation Framework

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- Building Management Systems Commissioning
  - Commissioning Progress
    - Pre-functional Check-list Status:
      - Vertical Transportation Systems – Complete
      - Fire/Life/Safety – Complete (pending repair completion)
      - HVAC – 75% complete or in process (remaining pending repairs)
      - Hot Water, BMS, Lighting & Electrical not started
    - Functional Performance Testing
      - Implement Testing Plan per Schedule (update)
      - Measure, Monitor & Report on Functional Test
      - Validate Systems Performance
    - Closeout Documentation Status:
      - Submitted Items – 317
      - Unsubmitted Items – 542
  - Normal Operations
    - Continual Systems Operational Parameters Monitored
    - Real-time Systems Reporting and Alarming of Issues or Failures

# Building Management Systems Commissioning

	January				February				March					April				
	1/4	1/11	1/18	1/25	2/1	2/8	2/15	2/22	3/1	3/8	3/15	3/22	3/29	4/5	4/12	4/19	4/26	
<b>HVAC Equipment &amp; Controls</b>																		
Air Handling Units																		
Cooling Towers & Variable Frequency Drives (VFD)																		
Computer Room Air Conditioning (CRAC) units																		
Heat Pumps																		
Radiant Flooring																		
Stair Pressurization																		
Exhaust Fans																		
Supply Fans																		
Dampers / Actuation																		
<b>Domestic Hot Water System</b>																		
(BMCS) Mechanical																		
(BMCS) Electrical																		
<b>Building Management Control System</b>																		
(BMCS) Mechanical																		
(BMCS) Electrical																		
<b>Lighting Systems Control</b>																		
Occupancy Sensors																		
Daylight Dimming																		
Switching Systems																		
Time Schedules																		
<b>General Electrical Systems</b>																		
Uninterrupted Power Supplies (UPS)																		
Generators & ATS Systems																		
Transformers																		
Electrical Distribution Boards																		
Power & Energy Monitoring																		
<b>Fire Alarm System</b>	Completed with Recertification Pending Structural Repairs																	
<b>Fire Suppression System</b>	Completed with Recertification Pending Structural Repairs																	
<b>Vertical Transportation</b>	Completed																	

Partial  
 Recommissioning  
 Pending  
 Structural  
 Repairs

# Facility-wide Validation Framework

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- Re-Occupancy Readiness
  - Receive Occupancy Clearance by Zones/Floors
    - SFFD, DBI, TJPA Inspectors, Building Commissioning Agents
  - Establish Re-Activation Sequence
    - Incremental Activation as early as March to May Timeframe
    - Complete & Occupy Tenant Improvement Spaces
    - TJPA Office Move to 2<sup>nd</sup> Floor Space Imminent
    - Probable Early Bus Plaza Opening
    - Independent Salesforce Park Opening Plausible
    - Phased Bus Deck Opening Supports Early Activation
- Present Re-Occupancy Schedule March 2019



# Thank You

**TJPA**  
TRANSBAY JOINT POWERS AUTHORITY

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