



# Phase 1 Budget Status & Recommendations

July 1, 2013

# Transbay Transit Center

**TJPA**





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# Agenda

- Recap of February/March Budget Discussions
- Developments since March Board meeting
- Budget Adjustment Recommendations
- Funding Strategies
- Next Steps
- Awning Design Update



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# Recap of February/March Budget Discussion



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# February/March \$1,589M Budget Status (millions)

<b>Project Costs</b>	<b>May 2010 Baseline</b>	<b>Feb/Mar Status</b>
Temporary Terminal	\$25.3	\$25.7
Bus Storage	\$22.9	\$24.7
Demolition (Exist and Temp Term)	\$16.2	\$16.8
Utility Relocation	\$65.6	\$29.5
Transit Center Building Design	\$143.1	\$168.7
Transit Center Building Construction	\$909.7	\$902.9
Bus Ramps	\$40.2	\$53.6
ROW Acquisition	\$71.9	\$71.9
ROW Support	\$5.3	\$4.8
Programwide	\$243.6	\$268.9
Program Reserve	\$45.2	\$21.5
<b>TOTAL</b>	<b>\$1,589.0</b>	<b>\$1,589.0</b>



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## February/March Cost & Budget Pressures

- Increased activity in the regional construction market influencing competition, margins, and direct pricing resulting in cost pressure on the remaining scope of construction
- 2012 Risk and Vulnerability Assessment (RVA) update and IT needs assessment resulted in Design Guidance Criteria (DGC) with associated costs of \$56.8 million
- *Remaining program reserves needed to be increased to address the RVA and market recovery*



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# Cost Mitigation and Containment

- Constructability reviews and Value Engineering efforts have generated more than \$100 million cost reductions and savings to help maintain program costs within budget
- The scope of the remaining construction trade packages provides limited opportunity for additional Value Engineering or significant scope reduction
- *Exhausted cost reduction and containment opportunities*



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## February/March Preliminary Budget Recommendations

- Increase Transit Center Construction Budget
  - Provide for RVA
  - Acknowledge Market Recovery
- Increase Program Reserves and Contingencies
  - Restore program reserve to originally budgeted amount
  - Include additional reserve for potential schedule impacts
  - Adjust Construction and CM/GC Contingencies
- Increase Transit Center Design and Programwide Budgets
  - Recognize trends in program support costs
  - Increase budget for additional architectural & engineering services



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# February/March Budget Evaluation (millions)

<b>Project Costs</b>	<b>Baseline</b>	<b>Feb/Mar Status</b>	<b>Tentatively Proposed</b>
Temporary Terminal	\$25.3	\$25.7	\$25.7
Bus Storage	\$22.9	\$24.7	\$24.8
Demolition (Exist and Temp Term)	\$16.2	\$16.8	\$16.8
Utility Relocation	\$65.6	\$29.5	\$29.4
Transit Center Building Design	\$143.1	\$168.7	\$181.9
Transit Center Building Construction	\$909.7	\$902.9	\$1,056.8
Bus Ramps	\$40.2	\$53.6	\$53.7
ROW Acquisition	\$71.9	\$71.9	\$72.9
ROW Support	\$5.3	\$4.8	\$4.8
Programwide	\$243.6	\$268.9	\$290.0
Program Reserve	\$45.2	\$21.5	\$46.5
<b>TOTAL</b>	<b>\$1,589.0</b>	<b>\$1,589.0</b>	<b>\$1,803.3</b>



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# Budget Developments Since February/March



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## March Structural Steel Bid

- Five pre-qualified bidders
  - Four steel fabricator/erectors and one general contractor
  - Actively engaged in pre-proposal, QBD processes
  - Market activity contributed to bidder consolidation during process
- Received single bid of \$259 M
  - Pre-qualified fabricator/erectors do not bid, but submit sub-contractor pricing to bidding GC
- Pricing reflected a different assessment of complexity of fabrication, productivity of erection, risks, and other costs



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## Repackaging Steel CDs

- Independent procurement of critical cast structural steel nodes approved at May 20<sup>th</sup> TJPA Board Meeting
  - Cost of steel nodes below original estimate
- Prepared advanced structural steel shop drawings and enhanced support for coordination between cast node foundries, steel fabricators and general contractor
- Allowed contractors to submit pricing for West, Central, and East building sections
- Reviewed plans and specifications to clarify scope, mitigate perceived contractor risks, provide for alternate materials
- Pre-qualified three additional bidders; all general contractors



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## June 20 Steel Bid Results

- Four Bids Received
  - Original bidder and three new bidders
  - All bids within a range of 15%; two lowest bids within 2.5%
  - All bidders pursued the entire scope; significant discounts if awarded full scope
- Low Bid of \$189,108,000, from Skanska – the sole bidder in original March bid
  - When combined with the cast node contract value represents a reduction in excess of \$50 million from March bid
- Although consistent with the revised engineers' estimate, the low bid represents an increase of \$43.9 million above the cost anticipated in the February budget evaluation



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# Mitigating Re-Bid Schedule Impacts

- Webcor/Obayashi increasing production to keep the start of steel erection on schedule
  - Increasing/extending BSE shifts for certain activities to expedite the remaining excavation work
  - Use additional crews and additional formwork sets on the Below Grade Structure
- CM/GC, working with PMPC and CMO, have identified opportunities in the remaining schedule to mitigate any delays from the steel rebid by advancing shop drawing processes, re-sequencing work
- Continue to explore further opportunity to create float in the schedule through re-sequencing, re-evaluating activity durations, and reviewing schedule logic



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# Current Phase 1 Milestones

	<u>February Schedule</u>	<u>Current Schedule</u>
<b>Vacate Terminal/Begin Demolition</b>	Aug 2010	Aug 2010
<b>Begin Shoring Wall Construction</b>	April 2011	April 2011
<b>Complete Excavation</b>	Feb 2014	Mar 2014
<b>Complete Below-Grade Construction</b>	July 2015	Aug 2015
<b>Complete Construction of the Bus Ramps</b>	June 2017	Feb 2017
<b>Complete Superstructure Construction</b>	June 2016	June 2016
<b>Begin Bus Operations</b>	Oct 2017	Oct 2017



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# Budget Risk Assessment

- Initiated a formal Budget Risk Assessment with outside consultant from Gardiner & Theobald with FRA participation
- Intended to assess sufficiency of recommended contingencies and reserves for remaining project scope
- Presented findings to funding partners – FTA, MTC, SFCTA, etc. – for review & comment



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# Risk Assessment Processes

1. “Top-Down” approach conforming to Federal Transit Administration risk assessment Operating Guidance [FTA OG-40, May 2010]
2. “Bottom-Up” approach employing probabilistic Monte-Carlo analysis of team-identified and assessed risks

*Use of two approaches substantiates assessment and increases confidence in results*



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## Step 1 - Set Baseline

### Calculate Stripped and Adjusted Base Cost Estimate

- Identify and remove all visible and latent contingencies
- Adjust base costs for:
  - Bids received
  - Agreed change orders and claims
  - Identified trends
  - Estimate of known cost changes (+/-)
    - Market recovery, RVA/IT allocation, etc.

*Utilized as basis for both top-down (FTA) and bottom-up model analyses*



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## Step 2 – Identify Risks

### Purpose:

- Quantify risks using a ‘risk matrix’ including likelihood and cost and schedule impacts
- Rank risks and agree ‘greatest potential risks to project’
- Relates uncertainty to baseline estimate and schedule assumptions
- Identification of risk in project delivery cycle

Legend	Low (1)	Med(2)	High (3)	Very High (4)	Significant (5)
Probability	<10%	10%<50%	>50%	75%<90%	>90%
Cost	<\$250K	\$250K<\$1M	\$1M<\$3M	\$3M<\$10M	>\$10M
Schedule	<1 Mths	1<3 Mths	3<6 Mths	6<12 Mths	>12 Mths
Rating	<=3	3.1-9.49	>=9.5		

### Significant Risks

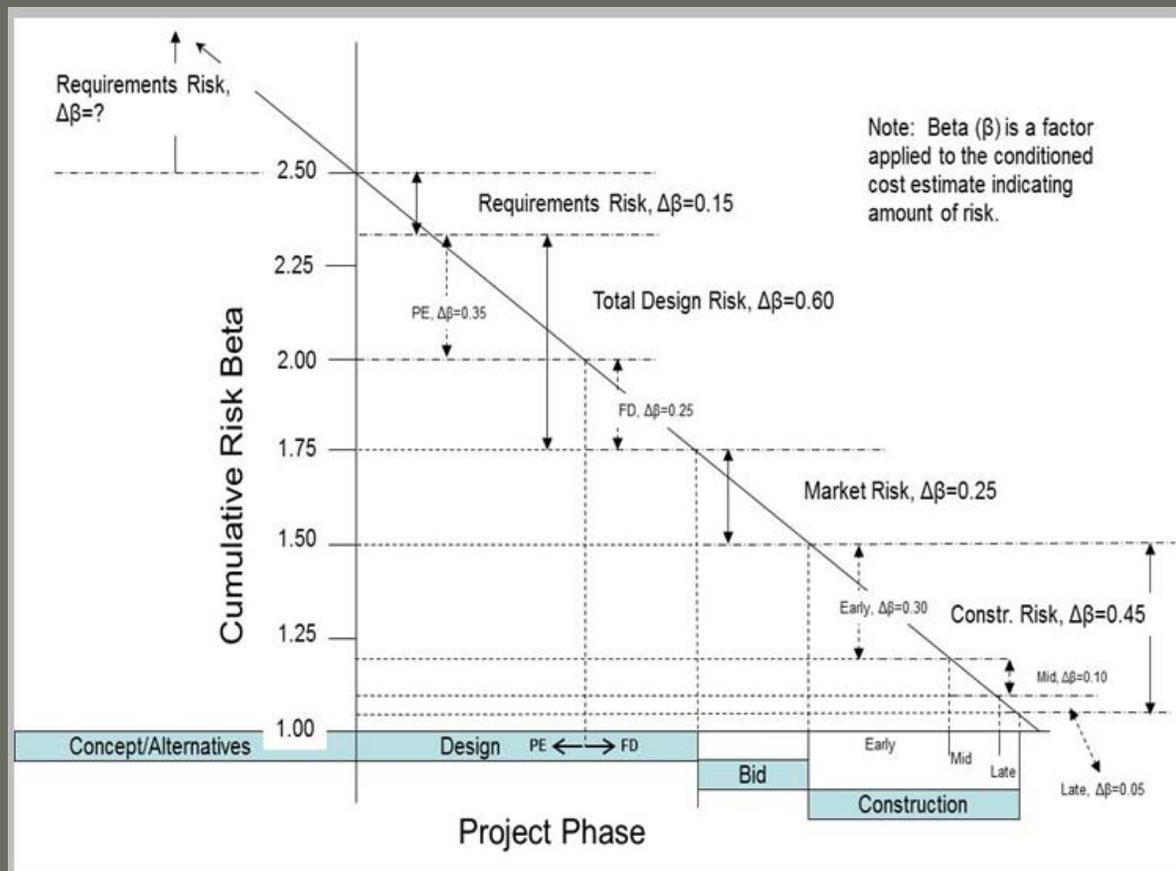
High Risks	7
Medium Risks	15
Low Risks	12
<b>Total</b>	<b>34</b>



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# FTA Top-Down Approach

- Produce quantitative analysis by applying risk Beta factors to cost and schedule



Cost  
Beta  
model



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## Bottom-Up Approach

- Produce quantitative Monte Carlo analysis of identified risks to cost and schedule
  - Estimating Uncertainty (Rates/Quantities/Source)
  - Design development status
  - Market conditions
  - Likelihood of construction change orders
  - Potential for claims
  - Escalation
  - Schedule delay factors



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# Risk Model Results

Confidence Level	Bottom Up Risk	Top Down Risk
30%	\$ 1,866	\$ 1,809
35%	\$ 1,881	\$ 1,827
40%	\$ 1,895	\$ 1,847
45%	\$ 1,909	\$ 1,867
50%	\$ 1,925	\$ 1,888
55%	\$ 1,940	\$ 1,910
60%	\$ 1,957	\$ 1,933
65%	\$ 1,974	\$ 1,958
70%	\$ 1,995	\$ 1,986



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# Budget Adjustment Recommendation



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# Budget Recommendations

- Increase Transit Center Construction Budget
  - Provide for RVA
  - Recognize Market Recovery
  - Reflect steel bid results
- Increase Contingencies and Program Reserves
  - Increase total contingencies and reserves to \$224.9 million consistent with recommendations of risk management evaluation
  - Increase construction contingencies to 8% of remaining construction
  - Increase program reserve to 8.5% of remaining budget to be committed
  - Adjust CM/GC Contingency
- Increase Transit Center Design and Programwide Budgets
  - Recognize trends in program support costs
  - Increase budget for additional architectural & engineering services



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## Recommended Budget Contingencies & Reserves

Program Reserves	87.5
Design Contingencies*	8.2
Escalation*	30.3
Construction Contingency*	62.5
CM/GC Contingency*	36.4
<b><i>Total Recommended Contingencies and Reserves</i></b>	<b><i>\$224.9</i></b>

\* - Escalation and design, construction and CM/GC contingencies are included within construction budget items



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# Current Budget Revision Proposal (millions)

Project Costs	Baseline	Current	February Assessment	Proposed Revision
Temporary Terminal	\$25.3	\$25.7	\$25.7	\$25.7
Bus Storage	\$22.9	\$24.7	\$24.8	\$24.8
Demolition	\$16.2	\$16.8	\$16.8	\$16.8
Utility Relocation	\$65.6	\$29.5	\$29.4	\$29.4
Transit Center Design	\$143.1	\$168.7	\$181.9	\$181.9
Transit Center Construction	\$909.7	\$902.9	\$1,056.8	\$1,107.3
Bus Ramps	\$40.2	\$53.6	\$53.7	\$50.4
ROW Acquisition	\$71.9	\$71.9	\$72.9	\$72.9
ROW Support	\$5.3	\$4.8	\$4.8	\$4.8
Programwide	\$243.6	\$268.9	\$290.0	\$297.9
Program Reserve	\$45.2	\$21.5	\$46.5	\$87.5
<b>TOTAL</b>	<b>\$1,589.0</b>	<b>\$1,589.0</b>	<b>\$1,803.3</b>	<b>\$1,899.4</b>

***\$110.3 million in Net New Revenue identified, resulting in \$200.1 million in Additional Revenue Required for market recovery, steel bid, RVA, and contingencies***



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## Recommended Phase 1 Budget Adjustments

RVA Costs	\$56.8	
Market Recovery	55.4	
Steel Bid Results	43.9	
Other Construction Costs	4.8	
Soft and Programwide Costs	35.0	
<i>Sub-Total Direct Costs</i>		<i>195.9</i>
Escalation	14.6	
Construction Contingency	29.5	
CM/GC Contingency	4.3	
Program Reserves	66.1	
<i>Sub-Total Contingencies &amp; Reserves</i>		<i>114.5</i>
<i>Recommended Budget Adjustment</i>		<i>\$310.4</i>
<i>Net New Revenues Identified</i>		<i>(\$110.3)</i>
<b><i>Additional Funding Required</i></b>		<b><i>\$200.1</i></b>



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# Revenue Plan for Proposed Budget Adjustment



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## Net New Revenues (millions)

### Increased Land Sales Values

*Based on 2013 "Conservative Appreciation" update of land values and likely RFP schedule*

\$53

### Transit Center District Plan Open Space/Impact Fees

*Fees for City Park construction included in TCDP Implementation Document*

\$28.5

### Additional Proposition K funds

*SFCTA recalculation of financing costs results in increased funding for projects*

\$41

### One Bay Area Grant Program

*Region's federal STP/CMAQ funds; SFCTA has announced recommended awards for approval in June 2013 including new revenue to TJPA for bike/pedestrian elements*

\$6

### Regional Transportation Improvement Program

*No longer available during Phase I schedule based on SFCTA prioritization of other local projects and State gas tax projections*

(\$18.2)

**Total**

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**\$110.3**



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## Targeted New Revenues (millions)

### Additional Revenue Required

*Fully funding contingencies and reserves*

\$200.1

### Increased TIFIA loan amount

*Possible with refinance to current interest rates and lowering of debt coverage ratio*

(\$97-129)

### Additional Funding Required

\$70-103

### Federal Funding

*May include TSGP, TIGER/PRNS, or other grants*

*Applied for TIGER V for Bus Storage*

\$18.2

*Applied for FY13 TSGP for Steel Connections/Columns*

\$3.6

*Total pending federal applications*

\$21.8

### Local/Regional Support

#### Accelerated Land Sales from Phase 2

*No-interest loan from funding partner based on estimated values of Parcel F and Block 4*



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## Next Steps

- *Bring Phase 1 Budget Recommendation for Board Action – July 11<sup>th</sup>*
- *Award Structural Steel Package (critical path) – July 11<sup>th</sup>*
- *Transmit Revised Budget to Fitch for Investment Grade Evaluation in order to move forward TIFIA loan modification – week of July 11<sup>th</sup>*
- *Issue Bus Ramp Trade Package – July*