



Phase 1 Budget Update

June 19, 2015

Transbay Transit Center

TJPA





- Background July 2013 Budget
- Current Budget Status
 - Phase 1 Budget Update
 - Remaining Construction Work to be Awarded
 - Recommendation
- Soft Costs
- Risk Assessment
- Funding
- Next Steps



Transbay Transit Center

Background July 2013 Budget

Phase 1 Budget

(\$millions)

	Budget (July 2013)	Budget Transfers	Budget (as of May 2015)
TTC Construction*	\$ 933.68	\$ 98.55	\$ 1,032.22
Bus Ramp*	\$ 40.42	\$ 15.80	\$ 56.23
Temp Terminal	\$ 20.65	\$ 0.00	\$ 20.65
Bus Storage*	\$ 15.95	\$ 0.00	\$ 15.95
Utility Relocation	\$ 19.86	\$ 0.98	\$ 20.84
Demolition	\$ 16.48	\$ 0.00	\$ 16.48
CM/GC Costs	\$ 85.65	\$ 1.00	\$ 86.65
Subtotal Construction	\$ 1,132.69	\$ 116.33	\$ 1,249.02
Soft Costs			
Design	\$ 188.45	\$ 0.21	\$ 188.66
Construction Mgmt	\$ 53.83	\$ 0.00	\$ 53.83
Pre-Construction	\$ 31.27	\$ 0.00	\$ 31.27
Art	\$ 2.00	\$ 0.00	\$ 2.00
ROW	\$ 77.68	\$ 0.00	\$ 77.68
PMPC	\$ 101.45	\$ 0.00	\$ 101.45
Admin/Legal/Financial/etc.	\$ 125.65	\$ (1.00)	\$ 124.65
Subtotal Soft Costs	\$ 580.32	\$ (0.79)	\$ 579.53
CM/GC Contingency	\$ 36.40	\$ (9.24)	\$ 27.16
Construction Contingency	\$ 62.45	\$ (24.27)	\$ 38.18
Program Reserve	\$ 87.53	\$ (82.03)	\$ 5.50
Subtotal Reserves	\$ 186.38	\$ (115.54)	\$ 70.84
Total Phase 1 Program	\$ 1,899.40	\$ 0.00	\$ 1,899.40

*Budget includes design contingency and escalation



Phase 1 2013 Budget Development

Assumptions:

- Pricing based on 1st Quarter 2013 market conditions
- Included escalation @ 3.5% per year to midpoint of construction
- Included Value Engineering and Deductive Alternates totaling \$35.8M
- Established \$224.88M in contingencies/reserves, based on FTA Risk Assessment modeling:

– Design Contingency	\$8.20M	
– Construction Contingency	\$62.45M	} \$186.38M
– CM/GC Contingency	\$36.40M	
– Program Reserve	\$87.53M	
– Escalation/Market Recovery	<u>\$30.30M</u>	
	\$224.88M	



Phase 1 Construction Estimate Update May 2014 (\$millions)

	Budget *	CM/GC Estimate	Delta
Upcoming Trade Packages	\$347.92	\$482.74**	(\$134.82)
Design Contingency	\$ 5.73	\$ 9.14	(\$ 3.41)
Escalation	<u>\$ 29.30</u>	<u>\$ 27.50</u>	<u>\$ 1.80</u>
Subtotal - Direct Costs	\$382.95	\$519.38	(\$136.43)
CM/GC Fee	\$ 71.00	\$ 79.43	(\$ 8.43)
CM/GC Contingency	<u>\$ 36.40</u>	<u>\$ 44.93</u>	<u>(\$ 8.54)</u>
Total	\$490.35	\$643.74	(\$153.40)

*As of May 2014

**CM/GC Estimate dated February 24, 2014 – Reconciled with Pelli Clarke Pelli Architects



Mitigation Measures

(\$millions)

Reduce electrical scope	\$ 5.2
Reduce IT scope	\$ 2.0
Redesign glazing systems	\$ 5.8
Remove glass fiber reinforced concrete	\$ 4.3
Provide galvanized painted steel instead of stainless steel	\$ 3.5
Redesign ceilings	\$ 2.0
Redesign Bus Deck barrier (concrete)	\$ 2.6
Other scope reductions	<u>\$ 4.4</u>
Total	\$29.8



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Current Budget Status



Phase 1 Budget Update

(\$millions)

Awarded to Date (direct cost)*

Transit Center	\$	877.67
Utility Relocation	\$	20.84
Demolition Old Terminal	\$	15.48
Temporary Terminal	\$	20.65
Bus Ramp	\$	56.23
Total Award through May 2015	\$	990.87

*Amounts include executed change orders

Phase 1 Budget Update

(\$millions)

Remaining TTC Construction Awards (direct cost)

Budget	\$ 163.84
CM/GC Estimate/Known Bid Results	\$ (231.07)
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Balance	\$ (67.23)
Additional CM/GC Costs	\$ (19.86)
Rooftop Park (above slab elements)	\$ (38.00)
Soft Costs: Construction Management Oversight	\$ (29.00)
Bus Storage	\$ (3.50)
Replenishment of Construction Contingency/Program Reserve*	\$ (84.82)
Various Program Savings	\$ 17.28
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Total Additional Budget Need	\$ (225.12)

*Amount based on 40% top down (FTA risk model) risk confidence level

Remaining Construction Work to be Awarded

(\$millions)

Future Work to be Awarded		Budgeted Amount	CM/GC Estimate (Feb 2014)	Current Estimate or Bid Result
7.6	Concrete Topping Slabs /Bus Crash Rail/Exp Joints	\$ 9.13	\$ 12.67	\$ 27.68
8.2R	Exterior Awning Construction (W1)	\$ 33.97		\$ 35.26*
8.6R	Metal Ceiling (W-14)	\$ 18.86	\$ 23.17	\$ 28.30*
12.1	Civil/Sitework at Grade/Ground Level Landscaping	\$ 17.84	\$ 19.70	\$ 17.31
16.0	Interiors/Finishes	\$ 20.86	\$ 19.75	\$ 39.03
17.1	Signage/Graphics/Directory System Construction	\$ 3.47	\$ 3.75	\$ 3.47*
8.11R	Glass Curtain Walls/Skylights/Glass Floors	\$ 35.98		\$ 50.00*
TBD	IP Network (award spring 2016)	\$ 16.56		\$ 20.01
TBD	OCS & Traction Control (Muni)	\$ 5.00		\$ 7.85
TBD	Art Work	\$ 2.18		\$ 2.18
	Total	\$ 163.84		\$ 231.07
	Budget			\$ 163.84
	Balance			\$ 67.23
13.1	Rooftop Park (Landscaping & Hardscaping)			\$ 24.50
TBD	Rooftop Park (MEPs)			\$ 13.50
	Total			\$ 38.00
	Balance			\$ 105.23

Known Costs

*Design Build/Assist



Topping Slabs/Bus Crash Rail/Expansion Joints Scope of Work

- Concrete topping slabs, integral footings, curbs, stem walls, ramps, and all associated accessories
- Concrete protection slabs, equipment pads, and curbs
- Concrete Bus Deck crash rail
- All expansion and seismic joints within concrete



Topping Slabs/Bus Crash Rail/Expansion Joints Bid Summary

Bid Date:	5/7/2015
Budget:	\$9.13M
CM/GC Estimate:	\$13.63M
SBE Goal:	20%
Prequalified Bidders:	7
Bids Received:	3
Bid:	\$27.68M - \$32.56M



Topping Slabs/Bus Crash Rail/Expansion Joints Prequalified Bidders

- Concrete North, Inc.
- Gordon N. Ball, Inc.
- Joseph J. Albanese, Inc.
- Myers and Sons Construction, LP
- Shimmick Construction Company, Inc.
- S.J. Amoroso Construction Company, Inc.
- Urata & Sons Concrete Inc.



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**Topping Slabs/Bus Crash
Rail/Expansion Joints
Bid Results**

	Concrete North Inc.	Shimmick Construction Company Inc.	Urata & Sons Concrete, Inc.	Budget	CM/GC Estimate
Bid Amount	\$27.68M	\$30.32M	\$32.56M	\$9.13M	\$13.63M



Interiors/Finishes Scope of Work

Concrete Masonry Units

Drywall & Metal Framing

Building Insulation

Clay Panel Cladding

Bird Deterrent

Ballistic Resistant Panels

Acoustic Ceiling Tiles & Wall
Treatments

Painting

Doors/Frames/Hardware

Interior Architectural Woodwork &
Countertops

Prefabricated Buildings

Final Cleaning



Interiors/Finishes Bid Summary

Bid Date:	5/21/2015
Budget:	\$20.86M
CM/GC Estimate:	\$20.82M
SBE Goal:	19%
Prequalified Bidders:	4
Bids Received:	3
Bid:	\$39.03M - \$47.74M



Interiors/Finishes Prequalified Bidders

- S.J. Amoroso Construction Co., Inc.
- Skanska USA Building Inc.
- Swinerton Builders
- West Bay Builders, Inc.



Interiors/Finishes Bid Results

	Skanska USA Building	S.J. Amoroso Construction Co.	West Bay Builders	Budget	CM/GC Estimate
Bid Amount	\$39.03M	\$45.66M	\$47.74M	\$20.86M	\$20.82M



- Estimate based on April 2013 plans vs. bids based on February 2015 plans
- Quantity refinement
- Post bid analysis validated bid scope
- Bids reflect market conditions, site logistics, and risk associated with a large, complex public works project in downtown San Francisco



Recommendations/ Next Steps

- Bid coverage sufficient (3 bids)
- Bids received are competitive
- Bids reflect market conditions
- Trade packages do not contain scope that can be value-engineered
- Rebidding packages will substantially delay project, add cost, and not yield better bid results
- It is recommended to award the Interiors trade package in July and the Topping Slabs trade package in September



Bidder Survey by Leland Saylor Associates (May 2014)

Recommendations:

- Update estimates to capture current market pricing
- Review CDs and bid manual to eliminate perceived design-build responsibility
- Provide flexibility through use of performance specifications
- Minimize narrow design tolerances and/or provide greater flexibility
- Review bid packaging to better match scope to trade
- Review general requirements
- Survey SBE availability for trade packages



Soft Costs



Soft Costs

(\$millions)

Soft Costs	Budget (as of May 2015)	Revised Budget	Delta
Design	\$ 188.66	\$ 178.28	\$ 10.39
Construction Mgmt.	\$ 53.83	\$ 78.28	\$ (24.45)
Pre-Construction	\$ 31.27	\$ 31.27	\$ 0.00
Art	\$ 2.00	\$ 2.00	\$ 0.00
ROW	\$ 77.68	\$ 77.68	\$ 0.00
PMPC	\$ 101.45	\$ 101.45	\$ 0.00
Admin/Legal/Financial/etc.	\$ 124.65	\$ 122.29	\$ 2.36
Total	\$ 579.53	\$ 591.24	\$ (11.71)



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Risk Assessment



- Initiated a formal Risk Assessment update with outside consultant from Gardiner & Theobald with FRA and FTA as well as CMO, CM/GC, and Design Team participation
- Assessed sufficiency of remaining contingencies and reserve
- Recommended levels of contingencies and reserve for remaining project scope
- Presented findings to funding partners – FTA, MTC, SFCTA, etc.



Risk Assessment Processes

1. “Top Down” approach conforming to FTA’s risk assessment Oversight Procedure [FTA OP-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



Risk Model Results

Contingencies & Reserve Confidence Level	Bottom Up Risk Total Construction Contingency	Top Down Risk Total Construction Contingency
30%	\$ 175	\$ 130
35%	\$ 180	\$ 143
40%	\$ 184	\$ 156
45%	\$ 188	\$ 170
50%	\$ 192	\$ 185
55%	\$ 196	\$ 200
60%	\$ 201	\$ 217
65%	\$ 205	\$ 234
70%	\$ 211	\$ 254



Contingencies & Reserve

- Recommended total contingencies and reserve consistent with 40% confidence level cost projections
- This will replenish the current contingency amount by \$84.82M, to a total amount of \$155.7M
- Recommended contingency level constitutes 17% of remaining work after all existing known exposure is accounted for
- Recommended construction contingency level is consistent with CM/GC's assessment and CMO's recommendation
- Recommended construction contingency is reasonable given that bidding risk is minimal moving forward, construction is more than 50% complete, foundation work and train box construction is complete, and structural fabrication and erection risks are quantified

Construction Cost Drivers*

(\$millions)

Packages Awarded since July 2013	Budget	Award Amount	Delta
Logistics (Hoisting & Temp. Facilities)	\$ 20.30	\$ 26.51	\$ (6.21)
Structural Concrete	\$ 35.56	\$ 48.18	\$ (12.63)
Misc. Metals & Metal Stairs	\$ 9.84	\$ 16.77	\$ (6.93)
Metal Panels (W-5, 7, 9, 16A/B, 17, 19)	\$ 14.08	\$ 19.55	\$ (5.47)
Electrical	\$ 54.33	\$ 86.80	\$ (32.47)
Elevators & Escalators	\$ 11.92	\$ 17.08	\$ (5.16)
Bus Ramp	\$ <u>40.42</u>	\$ <u>56.23</u>	\$ <u>(15.80)</u>
Total	\$ 186.46	\$ 271.12	\$ (84.67)

* Cost drivers are a result of active construction market conditions



Draft Phase 1 Budget with Risk Adjustment and Bids Known at 6/16/15

(\$millions)

Phase 1 Budget - 40% Confidence Level

	Budget (as of May 2015)	Revised Budget	Delta
TTC Construction*	\$ 1,032.22	\$ 1,137.45	\$ (105.23)
Bus Ramp*	\$ 56.23	\$ 56.23	\$ 0.00
Temp Terminal	\$ 20.65	\$ 20.65	\$ 0.00
Bus Storage*	\$ 15.95	\$ 19.45	\$ (3.50)
Utility Relocation	\$ 20.84	\$ 20.84	\$ (0.00)
Demolition	\$ 16.48	\$ 16.48	\$ 0.00
CM/GC Costs	\$ 86.65	\$ 106.51	\$ (19.86)
Subtotal Construction	\$ 1,249.02	\$ 1,377.62	\$ (128.60)
Soft Costs			
Design	\$ 188.66	\$ 178.28	\$ 10.39
Construction Mgmt	\$ 53.83	\$ 78.28	\$ (24.45)
Pre-Construction	\$ 31.27	\$ 31.27	\$ 0.00
Art	\$ 2.00	\$ 2.00	\$ 0.00
ROW	\$ 77.68	\$ 77.68	\$ 0.00
PMPC	\$ 101.45	\$ 101.46	\$ (0.01)
Admin/Legal/Financial/etc.	\$ 124.65	\$ 122.29	\$ 2.36
Subtotal Soft Costs	\$ 579.53	\$ 591.24	\$ (11.71)
CM/GC Contingency	\$ 27.16	\$ 37.15	\$ (9.99)
Construction Contingency	\$ 38.18	\$ 83.91	\$ (45.73)
Program Reserve	\$ 5.50	\$ 34.60	\$ (29.10)
Subtotal Contingencies & Reserve	\$ 70.84	\$ 155.66	\$ (84.82)
Total Phase 1 Program	\$ 1,899.40	\$ 2,124.52	\$ (225.12)

*Budget includes design contingency and escalation

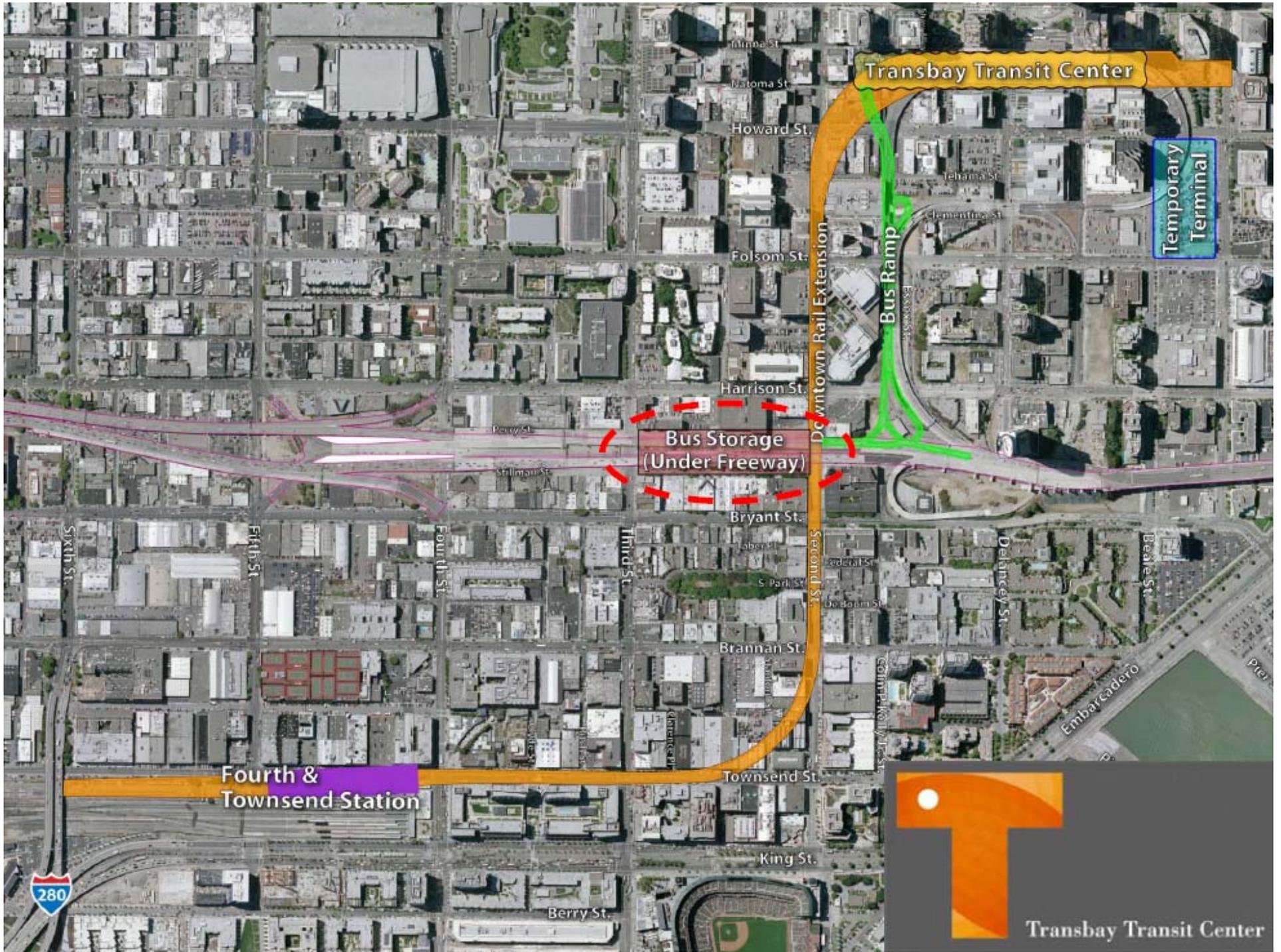


Possible Mitigation Measure

Bus Storage

Budget:	\$15.95M
Updated Estimate:	<u>\$19.45M</u>
Balance:	(\$3.5 M)

Bus Storage could be built after TTC completion with little impact to TTC operations, for a total Phase 1 Budget savings of \$19.45M



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Temporary Terminal

Downtown Rail Extension

Bus Ramp

Bus Storage (Under Freeway)

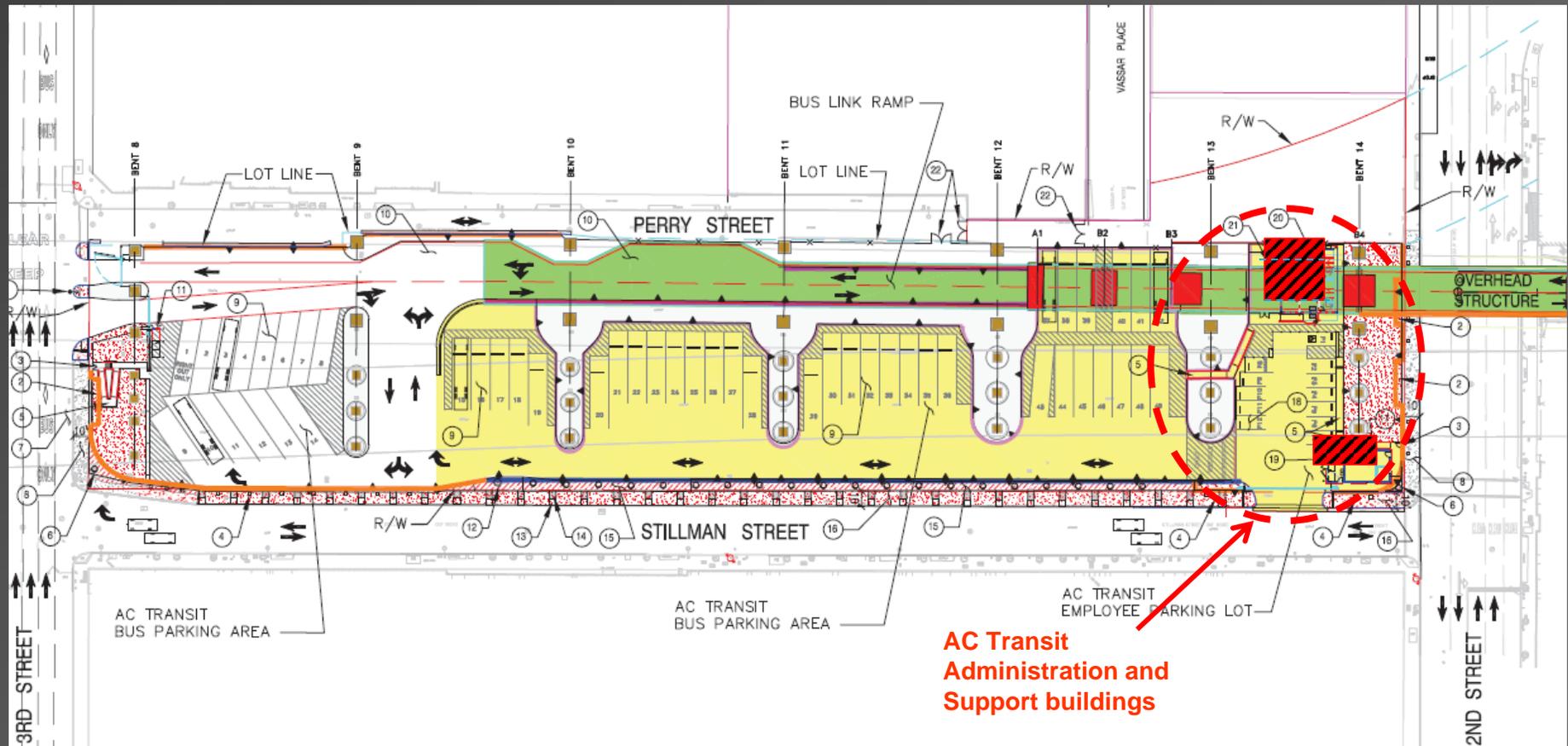
Fourth & Townsend Station



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Bus Storage Site Plan



Accommodates 49 buses



Bus Storage Budget

- 65% Engineer's Estimate: \$19.45M
 - Updated in April 2015 to reflect current market conditions
 - Cost increase from DD phase due to deeper piles, additional contaminated soil off-haul, more defined sound walls, and additional seismic joint at bus link ramp
 - Estimate includes 15% design contingency
- Budget: \$15.95M
 - Budget includes \$2.47M design contingency and \$1M escalation
- Value engineering strategies are being pursued in an effort to bring project within budget



Bus Storage Design Status

- Caltrans Coordination:
 - Type Selection Report approved
 - Structural Mitigation analysis approved
 - Fact Sheets approved
 - Project Study Report/Project Report (PSR/PR) approved
- SFMTA/SFDPW Coordination:
 - Second St. clearance for link ramp false work has been coordinated
 - Temporary removal of Second St. OCS lines is being coordinated with SFMTA
 - Signal/Lane/Pedestrian routing coordination at Third St. is being coordinated with SFMTA



Bus Storage Schedule

- Design Milestones
 - 65% PS&E: Complete
 - 95% PS&E: August 2015
 - 100% PS&E with Caltrans approval: November 2015
- Procurement:
 - February - March 2016 contingent upon the following:
 - O&M funding agreement with AC Transit
 - Lease agreement with Caltrans
 - Full construction funding in place
- Construction:
 - April 2016 - August 2017



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Funding



Funding Need with Risk Adjustment and Bids Known at 6/16/15 (\$millions)

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	40% Risk
Current Budget	\$ 1,899.4
Current Estimate	\$ 2,124.5
Amt of Additional Budget	\$ 225.1
Mitigation	
Bus Storage	\$ (19.5)
Revised Budget Needed	\$ 205.7
Revised Budget Total	\$ 2,105.1
Phase 1 Funding	
Current budget fully funded	\$ 1,899.4
Timing of CFD availability during Phase 1	\$ (20.0)
Parcel F minimum bid price	\$ 160.0
Total Funding	\$ 2,039.4
40% Risk Level budget (mitigated)	\$ 2,105.1
New Funding Need	\$ 65.7



Funding Plan

(\$millions)

Sources	Committed Funds	Potential Funds
Land Sales	\$ 510.0	\$ TBD
FRA Grants	\$ 402.7	
TIFIA/Bridge Loan	\$ 171.0	
FTA Grants	\$ 62.4	
FEMA Grants	\$ 0.1	\$ TBD
Regional Measures 1 & 2	\$ 197.4	
AB 1171	\$ 150.0	
San Francisco Prop K	\$ 139.0	
AC Transit Capital Contribution	\$ 39.0	
RTIP	\$ 10.2	
Miscellaneous Local	\$ 12.7	
One Bay Area Grant	\$ 6.0	
San Mateo Sales Tax	\$ 4.5	
Transit Center District Plan (Mello-Roos)	\$ 194.4	\$ TBD
Sponsorship	\$ -	\$ TBD
Total Funds	\$ 1,899.4	\$ TBD

Any increase to the Phase 1 budget must be fully funded to meet TIFIA/bridge loan lender requirements



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Next Steps



July 2015

- Draft Budget with an update on bid results & price negotiations
- Award critical trade packages (action item)
- Adopt one month interim fiscal year budget for August (action item)
- Augment CMO contract (action item)
- Continue to work with City & County of San Francisco on funding

September 2015

- Final budget for both Phase 1 update and Fiscal Year 2015-16 capital budget (action item)
- Award remaining trade packages except IT Network package (action items)



Critical Trade Packages to Stay on Schedule/ Complete in Dec. 2017 (\$millions)

July Awards

	Current Estimate
12.1 Civil/Sitework at Grade/Ground Level Landscaping	\$ 17.31*
8.11R Glass Curtain Walls/Skylights/Glass Floors	\$ 50.00
8.2R Exterior Awning Construction (W1)	\$ 35.26*
16.0 Interiors/Finishes	\$ <u>39.03*</u>
Total	\$ 141.6
	SBE award amount: \$10.29M

September Awards

	Current Estimate
7.6 Concrete Topping Slabs /Bus Crash Rail/Exp Joints	\$ 27.68*
17.1 Signage/Graphics/Directory System Construction	\$ 3.47*
8.6R Metal Ceiling (W-14)	\$ 28.30*
TBD OCS & Traction Control (Muni)	\$ 7.85*
13.1 Rooftop Park (Landscaping & Hardscaping)	\$ 24.50
TBD Rooftop Park (MEPs)	\$ 13.50
Total	\$ <u>105.3</u>
	SBE award amount: \$30.43M

*Bids opened or prices known from contractors



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Questions?

