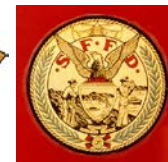


# Agenda Item 5

## ESER Program Update



# Earthquake Safety and Emergency Response (ESER) General Obligation Bond Programs

Presentation to the  
**Capital Planning  
Committee**

January 25, 2016

## Agenda

- **ESER 2010 and ESER 2014 Financial Status**
- **Fire Department**
- **Police Department**
  - **Public Safety Building**
  - **Traffic Company & Forensic Service Division**
  - **Police Facilities**
- **Medical Examiner**
- **Auxiliary Water Supply System**

# ESER 2010 & 2014 Financials – Savings

\$10.9M ESER 2010 funds available for reallocation from the savings of PSB & Cost of Issuance plus the interest-earned.

- **ESER 2010, \$2.3M is proposed to fund NFS Additional Focused Scope projects.**
- **ESER 2014, the NFS budget is reduced by \$2.3. The impact to the combined budget of NFS 2010 and 2014 is net zero; the \$2.3M is proposed to increase OCME's budget.**
- **\$8.6M is the savings to be allocated to other ESER 2010 projects.**

Public Safety Building	1.7
Cost of Issuance	2.6
Controller's Reserve	2.3
Interest-earned	4.3
<b>Total</b>	<b>10.9</b>

OCME	(2.3)
<b>Total</b>	<b>8.6</b>

# ESER 2010 & 2014 Financials – Updated Budget

Uses	Original Budget					Updated Budget					Savings/ (Overage)	Status		
	ESER 2010	ESER 2010 Interest	ESER 2014	Other Sources <sup>(A)</sup>	Total	ESER 2010	ESER 2010 Interest	ESER 2014	Other Sources <sup>(A)</sup>	Total		ESER 2010	ESER 2014	
<b>Public Safety Building</b>	<b>236.7</b>			<b>12.1</b>	<b>248.7</b>	<b>235.0</b>			<b>12.1</b>	<b>247.1</b>	<b>1.7</b>	(B)	Complete	
<b>Neighborhood Fire Stations</b>														
Focused Scope	12.2		7.6	0.0	19.8	10.6		7.6	0.0	18.2	1.6		Complete	Construction
Additional Focused Scope			11.3	0.0	11.3	2.3		8.9	0.0	11.3	0.0	(C)	Not started	Not started
Comprehensive Renovation	6.4		4.1	0.0	10.5	7.0		4.1	0.0	11.2	(0.7)		Complete	
Seismic Upgrades														
Station 5	13.8			0.0	13.8	18.7			0.0	18.7	(4.8)		75% CDs	
Station 16	8.8			0.0	8.8	11.5			0.0	11.5	(2.7)		95% CDs	
Station 35, Pier Strengthening & CEQA	10.0			8.3	18.3	0.7			1.0	1.7	16.6			Pre-Design
Station 35			30.6	0.0	30.6			30.6	7.3	37.8	(7.3)		CEQA	
Station 35 Pier 26			2.0	0.0	2.0			2.0	0.0	2.0	0.0			
Station 48 Treasure Island			1.5	1.5	3.0			1.5	1.5	3.0	0.0			Completed
Other Seismic Work	0.8		6.9	0.0	7.7	0.2		6.9	0.0	7.1	0.6			Not started
EMS HQ Planning			0.6	0.0	0.6			0.6	0.0	0.6	0.0			
Project Controls	11.2		9.9	0.0	21.1	11.3		9.9	0.0	21.2	(0.1)		n/a	n/a
Reserve	0.7		9.1	0.0	9.9	3.9		9.1	0.0	13.1	(3.2)		n/a	n/a
<b>Neighborhood Fire Stations Total</b>	<b>64.0</b>	<b>0.0</b>	<b>83.6</b>	<b>9.8</b>	<b>157.4</b>	<b>66.3</b>	<b>0.0</b>	<b>81.2</b>	<b>9.8</b>	<b>157.4</b>	<b>0.0</b>			
<b>Office of the Chief Medical Examiner</b>			<b>63.9</b>	<b>0.0</b>	<b>63.9</b>			<b>66.2</b>	<b>0.0</b>	<b>66.2</b>	<b>(2.3)</b>	(D)		Construction
<b>Traffic Company &amp; Forensic Services Division</b>			<b>162.2</b>	<b>0.0</b>	<b>162.2</b>			<b>162.2</b>	<b>0.0</b>	<b>162.2</b>	<b>0.0</b>			In progress
<b>Police Facilities</b>														
Focused Scope			6.4	0.0	6.4			6.4	0.0	6.4	0.0			In progress
Comprehensive			9.1	0.0	9.1			9.1	0.0	9.1	0.0			Not started
Project Controls			9.5	0.0	9.5			9.5	0.0	9.5	0.0			
Reserve			4.5	0.0	4.5			4.5	0.0	4.5	0.0			
<b>Police Facilities Total</b>	<b>0.0</b>	<b>0.0</b>	<b>29.5</b>	<b>0.0</b>	<b>29.5</b>	<b>0.0</b>	<b>0.0</b>	<b>29.5</b>	<b>0.0</b>	<b>29.5</b>	<b>0.0</b>			
<b>Auxiliary Water Supply System</b>	<b>102.4</b>		<b>54.1</b>	<b>0.0</b>	<b>156.5</b>	<b>102.4</b>		<b>54.1</b>	<b>0.0</b>	<b>156.5</b>	<b>0.0</b>		In progress	In progress
<b>Oversight, Accountability, Issuance Costs</b>	<b>6.9</b>		<b>6.8</b>	<b>0.0</b>	<b>13.7</b>	<b>4.3</b>		<b>6.8</b>	<b>0.0</b>	<b>11.1</b>	<b>2.6</b>	(E)	n/a	n/a
<b>Controller's Reserve (Ordinance 60-15)</b>	<b>2.3</b>	<b>4.3</b>		<b>0.0</b>	<b>6.6</b>	<b>2.3</b>	<b>4.3</b>		<b>0.0</b>	<b>6.6</b>	<b>0.0</b>	(F)	n/a	n/a
<b>Total (Millions)</b>	<b>412.3</b>	<b>4.3</b>	<b>400.0</b>	<b>21.9</b>	<b>838.5</b>	<b>410.4</b>	<b>4.3</b>	<b>400.0</b>	<b>21.9</b>	<b>836.6</b>	<b>1.9</b>			

**Notes:**

- (A) Other Sources include: 1992 Fire Facility Bond Funds \$8.3M; PSB Developer Contribution \$6.4M and General Funds \$7.2M (PSB FF&E \$5.7M & NFS Station 48 \$1.5M).
- (B) Per Ordinance 60-15, the ESER 2010 PSB's budgeted was reduced by \$2.3M and was placed on Controller's Reserve. Current PSB's forecast shows an additional savings of \$1.7M.
- (C) The NFS 2010 Budget increased by \$2.3M. The NFS 2014 Budget decreased by \$2.3M. The combined NFS 2010 & 2014 budget remained at \$157.4M.
- (D) ESER 2014 OCME's budget increased by \$2.3M and it is funded from the NFS 2014 budget reduction.
- (E) The ESER 2010 COI's forecast shows a savings of \$2.6M.
- (F) The ESER 2010 funds available for reallocation total \$6.6 (Controller's Reserve of \$2.3 and \$4.3 interest-earned)



# ESER 2010 & 2014 Financials - Expenditures

Uses	Original Budget					Expenditures+Encumbrances thru 12/31/2015					Balance	%
	ESER 2010	ESER 2010 Interest	ESER 2014	Other Sources <sup>(A)</sup>	Total	ESER 2010	ESER 2010 Interest	ESER 2014	Other Sources <sup>(A)</sup>	Total		
<b>Public Safety Building</b>	236.7			12.1	248.7	235.6			7.4	243.0	5.8	98%
<b>Neighborhood Fire Stations</b>												
Focused Scope	12.2		7.6	0.0	19.8	10.7		1.2	0.0	11.9	7.9	60%
Additional Focused Scope			11.3	0.0	11.3	0.0		0.0	0.0	0.0	11.3	0%
Comprehensive Renovation	6.4		4.1	0.0	10.5	6.8		0.0	0.0	6.8	3.7	65%
Seismic Upgrades												
Station 5	13.8			0.0	13.8	2.3			0.0	2.3	11.5	17%
Station 16	8.8			0.0	8.8	2.3			0.0	2.3	6.6	26%
Station 35, Pier Strengthening & CEQA	10.0			8.3	18.3	0.7			1.0	1.7	16.6	9%
Station 35			30.6	0.0	30.6			0.0	0.4	0.4	30.2	1%
Station 35 Pier 26			2.0	0.0	2.0			0.0	0.0	0.0	2.0	0%
Station 48 Treasure Island			1.5	1.5	3.0			1.4	1.5	2.9	0.1	96%
Other Seismic Work	0.8		6.9	0.0	7.7	0.0		0.0	0.0	0.0	7.7	0%
EMS HQ Planning			0.6	0.0	0.6	0.0		0.5	0.0	0.5	0.0	100%
Project Controls	11.2		9.9	0.0	21.1	9.2		1.6	0.0	10.8	10.3	51%
Reserve	0.7		9.1	0.0	9.9	0.0		0.0	0.0	0.0	9.9	0%
<b>Neighborhood Fire Stations Total</b>	<b>64.0</b>	<b>0.0</b>	<b>83.6</b>	<b>9.8</b>	<b>157.4</b>	<b>32.0</b>	<b>0.0</b>	<b>4.7</b>	<b>2.9</b>	<b>39.6</b>	<b>117.8</b>	<b>25%</b>
<b>Office of the Chief Medical Examiner</b>			<b>63.9</b>	<b>0.0</b>	<b>63.9</b>			<b>28.7</b>	<b>0.0</b>	<b>28.7</b>	<b>35.2</b>	<b>45%</b>
<b>Traffic Company &amp; Forensic Services Division</b>			<b>162.2</b>	<b>0.0</b>	<b>162.2</b>			<b>21.5</b>	<b>0.0</b>	<b>21.5</b>	<b>140.7</b>	<b>13%</b>
<b>Police Facilities</b>												
Focused Scope			6.4	0.0	6.4			0.3	0.0	0.3	6.1	4%
Comprehensive			9.1	0.0	9.1			0.0	0.0	0.0	9.1	0%
Project Controls			9.5	0.0	9.5			1.5	0.0	1.5	8.0	15%
Reserve			4.5	0.0	4.5			0.0	0.0	0.0	4.5	0%
<b>Police Facilities Total</b>	<b>0.0</b>	<b>0.0</b>	<b>29.5</b>	<b>0.0</b>	<b>29.5</b>	<b>0.0</b>	<b>0.0</b>	<b>1.7</b>	<b>0.0</b>	<b>1.7</b>	<b>27.8</b>	<b>6%</b>
<b>Auxillary Water Supply System</b>	<b>102.4</b>		<b>54.1</b>	<b>0.0</b>	<b>156.5</b>	<b>69.5</b>		<b>3.0</b>	<b>0.0</b>	<b>72.5</b>	<b>83.9</b>	<b>46%</b>
<b>Oversight, Accountability, Issuance Costs</b>	<b>6.9</b>		<b>6.8</b>	<b>0.0</b>	<b>13.7</b>	<b>3.5</b>		<b>1.1</b>	<b>0.0</b>	<b>4.6</b>	<b>9.1</b>	<b>34%</b>
<b>Controller's Reserve (Ordinance 60-15)</b>	<b>2.3</b>	<b>4.3</b>		<b>0.0</b>	<b>6.6</b>				<b>0.0</b>	<b>0.0</b>	<b>6.6</b>	<b>0%</b>
<b>Total (Millions)</b>	<b>412.3</b>	<b>4.3</b>	<b>400.0</b>	<b>21.9</b>	<b>838.5</b>	<b>340.7</b>	<b>0.0</b>	<b>60.7</b>	<b>10.2</b>	<b>411.6</b>	<b>425.0</b>	<b>49%</b>

**Notes:**

(A) Other Sources include: 1992 Fire Facility Bond Funds \$8.3M; PSB Developer Contribution \$6.4M and General Funds \$7.2M (PSB FF&E \$5.7M & NFS Station 48 \$1.5M).



# ESER Neighborhood Fire Stations Need Summary

Category	Estimates			Funding				
	2009	2014	2022	ESER 2010	ESER 2014	Other <sup>(1)</sup>	Total	ESER 2022
Focused Scope	103.4	142.4	141.5	10.6	7.6		18.2	123
Additional Focused Scope					11.3		11.3	(11)
Comprehensive				7.0	4.1		11.2	(11)
Seismic Improvement	245.2	516.0	589.5	31.1	41.0	8.3	80.4	509
Project Controls	12.8			11.3	10.5		21.8	(22)
Reserve (5%)	17.4			3.9	9.1		13.1	(13)
<b>Totals</b>	<b>378.9</b>	<b>658.4</b>	<b>731.0</b>	<b>64.0</b>	<b>83.6</b>	<b>8.3</b>	<b>155.9</b>	<b>575</b>

(1) 1992 Fire Facility Bond Funds

## Factors Contributing to Need Cost Increases

1. 2009 Cost Estimate ROM – rough-order of magnitude- condition surveys performed
2. 2014 Cost Estimate is re-informed by:
  - Targeted in-depth conditions' assessment
  - Actual Cost of work executed
  - Escalation correction
3. Future estimate is driven by escalation of balance forward from mid-point of construction of the ESER 2020 bond

# ESER 2010: Neighborhood Fire Stations

Focused Scope projects completed



Station 12 – Emergency Generator



Station 10 – Exterior Envelope



Station 26 – Shower Renovation



Station 17 – Exterior Envelope



Station 2 – Exterior Envelope

# ESER Neighborhood Fire Stations Need Summary

## ESER 2010

### Neighborhood Fire Stations

#### Focused Scope

Roof Replacement

2, 6, 10, 13, 15, 17, 18, 26, 28, 31, 32, 38, 40, 41, 42

Shower Renovation

6, 13, 15, 18, 26, 38, 40, 41

Window Replacement

2, 6, 17, 25, 26, 28, 31, 32, 38, 40, 41, 42

Mechanical/Plumbing

2, 6, 10, 13, 15, 17, 18, 26, 28, 31, 32, 38, 40, 41, 42

Exterior Envelope

2, 6, 10, 13, 15, 17, 18, 26, 28, 31, 32, 38, 40, 41, 42, 49

Electrical/Emergency Generator

6, 12, 15, 17, 21

Sidewalk Repair

10

Miscellaneous

Pier 26 (berthing)

#### Comprehensive Renovation

44, 36

#### Seismic Upgrades

5, 16, 35 (CEQA), 9 (Utility Isolation); 43 reclassified to low priority

## ESER 2014

### Neighborhood Fire Stations

#### Focused Scope

Roof Replacement

3, 7, 9, 11, 12, 20, 23, 29, 40, 43, 49

Shower Renovation

13, 17, 20, 22, 33, 34

Window Replacement

7, 8, 9, 19, 20, 21, 22, 24, 25, 29, 34

Exterior Envelope

8, 11, 20, 22, 23, 24, 29, 34

Mechanical/Plumbing

3, 7, 8, 9, 14, 20, 22, 23, 41, 43, 49

Electrical/Emergency Generator

3, 19, 31, 39

Sidewalk Repairs

13, 31

Apparatus Bay Doors

34 stations

Security Access

All Stations

Vehicle Exhaust

Stations TBD

#### Comprehensive

3 or 7

#### Seismic Upgrades

35, 48

#### Other Seismic Improvements

25 (retrofit); 20 (retrofit); 11, 15, 21 (hose tower removal)

#### EMS HQ planning

9

## Confirmed projects in ESER 2010 Bond:

### Stations

## Proposed projects in ESER 2014 Bond:

### Stations

### Legend:



Completed



In Progress



Inclusion in 2014 Bond pending scoping analysis



Pending work for future bond(s)





# ESER Neighborhood Fire Stations Need Summary

## Balance of Need

### Focused Scope

Roof Replacement

Shower Renovation

Window Replacement

Exterior Envelope

Mechanical/Plumbing

Electrical/Emergency Generators

Sidewalk Repairs

Apparatus Bay Doors

Security Access

### Comprehensive

### Seismic Upgrades

## Not included in ESER bond to date:

Up to 18 stations

Up to 31 stations

Up to 21 stations

Up to 20 stations

Up to 18 stations

Up to 35 stations

Up to 41 stations

Up to 10 stations

TBD

TBD pending continuing seismic evaluations

Up to 34 stations

### Legend:



Completed



In Progress



Inclusion in 2014 Bond pending scoping analysis



Pending work for future bond(s)

# ESER 2010: Neighborhood Fire Stations

## Scope

- **Focused Scope: Roofs:** 15 of 15 stations completed; **Windows:** 12 of 12 stations completed; **Exterior Envelope:** 16 of 16 completed; **Generators:** 4 complete; 1 in close out (of 5 stations); **Showers:** 8 of 8 stations completed; **Mechanical:** 15 of 15 stations completed.
- **Comprehensive:** 2 of 2 stations completed. Station 36 is on track to achieve LEED Gold for Commercial Interiors certification.
- **Seismic:** Whole station replacements: FS 5 - Western Addition & FS 16 – Marina/Cow Hollow underway.

## Schedule

- **Focused Scope:** Completion extended to Dec. 2015 to address generator permitting requirements
- **Comprehensive:** Stations 36 and 44 work is complete
- **Seismic:** Station 16 re-design complete and submitted to DBI; Station 5 Construction Documents 90% complete; Station 35 moved under ESER 2014.

## Challenges, Risks

- Potential of protests to the Stations 5 and 16 building permits.

# ESER 2014: Neighborhood Fire Stations

## Scope

The ESER 2014 bond program will continue the work of ESER 2010 bond, categorizing projects according to the three categories of *Focused Scope, Comprehensive, and Seismic*. The principal goal of ESER 2014 is to continue to address identified and prioritized needs **at all stations not addressed under ESER 2010**.

- *Facilities Conditions Assessment*
  - *Existing building assessments and recommendations for 21 stations not evaluated as part of ESER 2010 scope including site, exterior building envelope, interior health and safety conditions, and MEP systems and associated cost estimates were completed.*
  - *Structural assessments were completed for 6 stations.*
  - *Page and Turnbull, the historic consultant, has completed analysis of 18 stations, and completed the first round of reporting and DPR forms for submission to Planning.*

## Schedule

See next slide

## Risks, Challenges

- Bidding climate in 2016 and subsequently
- Station 35: Multiple jurisdictions and approvals are required. New fireboat scheduled to arrive in Spring 2016 requires temporary berthing location –proposed at adjacent P26

# ESER 2014: Neighborhood Fire Stations

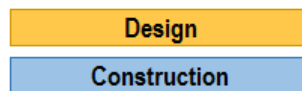
## Project List (Proposed):

- *Seismic Improvement: Stations 35, 6, 25; hose tower only 11, 15, 21*
- *Comprehensive Renovation: Station 3 or 7*
- *Focused Scope: Stations 8, 9, 11, 12, 14, 19, 20, 21, 22, 23, 24, 25, 29, 33, 34, 37, 39, 43, 49; Pier 26 (berthing)*

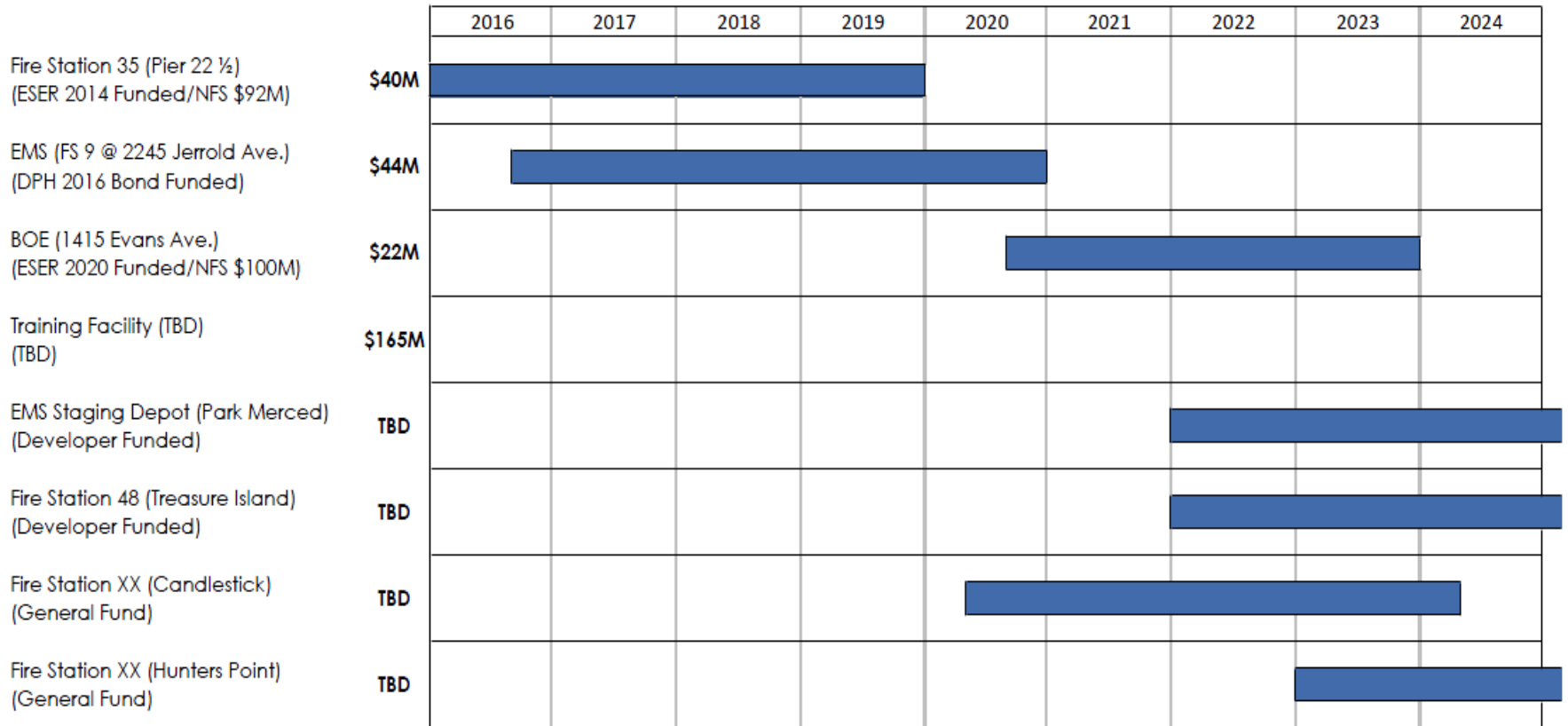
## Schedule

### Early Focused Scope Projects

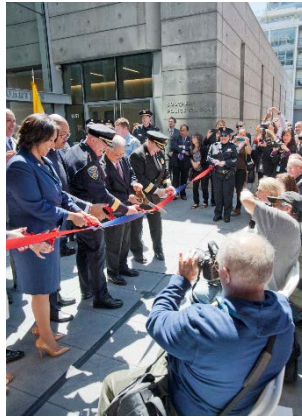
	2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Roof Replacement/Repairs (FS 3,17,40)	Design		Design		Construction			
Exterior Envelope (FS 11,20)		Design			Construction			
Windows Repairs (FS 8,9,19,20,21,25,29)	Design		Construction					
Shower Renovations (FS 13,17,20,22,34)	Design			Construction				
Sidewalk Repairs (FS 13)		Design	Construction					



# SFFD Major Capital Projects



# ESER 2010: Public Safety Building



# ESER 2010: Public Safety Building

## Scope

- **Project Completed!**

## Schedule

- Building Inauguration – April 16, 2015; Substantial Completion - April 28, 2015;
- Final Completion expected March 2016

## Challenges, Risks

- Project Closeout by March 2016

# ESER 2014: Traffic Company/Forensic Services Division

## Scope

- Relocation of FSD from seismically unsafe HOJ and from Hunter's Point Shipyard to site at 1995 Evans at Toland
- 105,000 sf Replacement Facility - 85,000 sf FSD and 20,000 sf TC with 2-level City Fleet Parking Structure
- First application of BOS approved Revised Chapter 6 allowance of design-build core major trades within CM/GC

## Schedule

- Selected A/E Design Team on November 13, 2014 – HOK Architects, San Francisco
- Selected CMSS on September 18, 2015 – Vanir CM, San Francisco
- Programming Phase currently underway
- Construction Start - Spring 2017
- Building Inauguration - Fall 2019

## Challenges, Risks

- Bidding Climate in 2017
- Acquisition of adjacent CalTrans parcel
- Additional \$11.9M required for Special Equipment (FF&E)





# ESER 2014: District Police Stations



BAYVIEW STATION



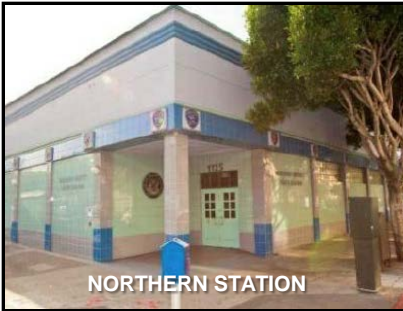
MISSION STATION



PARK STATION



CENTRAL STATION



NORTHERN STATION



TENDERLOIN STATION



TARAVAL STATION



RICHMOND STATION



POLICE ACADEMY



PISTOL RANGE



INGLESIDE STATION



GOLDEN GATE STABLES

# ESER 2014: District Police Stations

## Scope

- The ESER 2014 bond program will mirror the categorization of projects adopted by the NFS projects in the categories of Focused Scope and Comprehensive projects. The goals are to improve public access, and building systems, structural, and envelope deficiencies that would compromise operations
- Facilities Conditions Assessment
  - Existing building assessments and recommendations for all 12 facilities including accessibility, site, exterior building envelope, structural, and MEP systems and associated cost estimates were completed.
  - Historic Resource Evaluation report for all 12 facilities completed by Page and Turnbull in November 2015.
  - Hazardous Material Investigation
    - Field works and sample collection for all 12 facilities completed in December 2015 by EnviroSurvey, Inc.
    - Final reports for all 12 facilities to be completed by February 2016.

# ESER 2014 Police Facilities Projects

## Focused Scope

ADA - Public Access

Site Repairs

Exterior Envelope

Roof Replacement

Mechanical/Plumbing

Electrical/Emergency Generators

## Comprehensive

## Proposed Project Sites in ESER 2014 Bond Stations

Bayview, Ingleside, Mission, Northern, Park, Richmond, Taraval, Tenderloin, Police Academy, Central

Park (Drainage Repairs)

Ingleside, Park, Golden Gate Stables

Ingleside

Bayview, Ingleside, Richmond, Taraval, Tenderloin, Pistol Range

Bayview, Ingleside, Richmond, Taraval, Tenderloin, Pistol Range

Mission, Northern, Park, Police Academy, Golden Gate Stables

### Legend:



Completed



In Progress



Inclusion in 2014 Bond pending scoping analysis



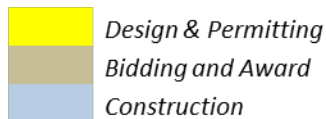
Pending work for future bond(s)

# ESER 2014: District Police Stations

## Schedule

- Design and Construction Projects underway:
  - **ADA Upgrade Package 1** (Bayview, Mission, Tenderloin, Central, Northern)
  - **ADA Upgrade Package 2** (Ingleside, Park, Richmond, Taraval, Police Academy)
  - **Northern Station Comprehensive Renovation**

	2015												2016												2017																			
	Q2				Q3				Q4				Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4										
	4	4	5	6	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
ADA Package 1																																												
ADA Package 2																																												
Northern Station Comprehensive																																												



## Challenges, Risks

- Maintaining SFPD operational efficiency during construction
- Bidding climate in 2016 and subsequently

# ESER 2014: Medical Examiner



Architect rendering



Project Site – Nov. 21, 2015



Project Site – Dec. 1, 2015

# ESER 2014: Medical Examiner

## Scope

- Two-story building, 46,000 GSF, for 50 employees
- Autopsy, Laboratory, Field Investigations, Body Storage, Administration
- LEED Gold

## Schedule

- A/E Design Team – KMD Architects - NTP January 7, 2015
- CM/GC – Clark Construction – NTP January 29, 2015
- Construction Management Supplemental Services (CMSS) – Vanir – NTP on July 25, 2015
- Complete Design - October 2015
- Start Construction - November 2015
- Complete Construction – August 2017
- Building Inauguration - September 2017

## Challenges, Risks

- Complete buyout of trade packages within the established budgets
  - Bid Package #1 - 10/2/2015 - (demolition and earthwork) - \$1.20M budget vs. \$660K bids (\$540K below the budget)
  - Bid Package #2 – 10/23/2015 – (piles, concrete, structural steel, methane barrier) – \$5.80M budget vs. \$5.84M bids (\$40K above the budget)
  - Remaining Bid Packages' direct construction cost budget amount - \$27.9M; bidding on 1/26/2016

# ESER 2010 and ESER 2014: Auxiliary Water Supply System



Dorchester Way & Ulloa Street cistern



Jones Street Tank, new piping and walkway



Pumping Station 1, new ventilation equipment with new engine exhausts in background

# ESER 2010 and ESER 2014: Auxiliary Water Supply System

## Scope

- **Planning Study** – AWSS reliability assessment and improvement recommendations
- **Reservoir** – Pipe and valve replacements
- **Tanks (2)** – Ashbury replacement; Jones Street seismic strengthening
- **Pump Stations (2)** – PS1 new engines; PS2 seismic strengthening
- **Cisterns (30)** – New cisterns in southern and western portions of the City
- **Pipe & Tunnel (9)** – Various improvements; pipeline assessment
- **ESER 2014 (14)** – Various pipeline and Flexible Water Supply System improvements

## Schedule

- **Planning Study** – Completed 2014
- **Reservoir** – Completion February 2016
- **Tanks** – Completion February 2016
- **Pump Stations** – PS1 completion May 2016; PS2 completion 2018
- **Pipe & Tunnel** – Completion varies by project; overall completion 2018
- **Cisterns** – 18 cisterns functional; completion of approximately 12 additional cisterns by 2017
- **ESER 2014** – Completion varies by project; overall completion 2021

## Budget – ESER 2010 \$102.4M, ESER 2014 \$54M

- **Planning Study** - \$2.9M
- **Reservoir** - \$2.9M
- **Tanks** – \$13.6M
- **Pump Stations** - \$27M
- **Cisterns** - \$35.4M
- **Pipe & Tunnel** - \$19.1M
- **ESER 2014 Pipe & FWSS** - \$54M
- **Administrative** - \$1.5M





[www.sfdpw.org](http://www.sfdpw.org)



# ESER 2014: District Police Stations