Special Meeting

Capital Planning Committee
&
Committee on Information Technology

March 17, 2016

1 Dr. Carlton B. Goodlett Place, City Hall, Room 305

San Francisco, CA 94102

Agenda

1. Call to Order by Chair

2. Roll Call

3. Approval of Meeting Minutes from February 18, 2016

4. Chair Update

5. CIO Update

6. Discussion: Major IT Project – Property Tax Assessment System

7. Discussion: Connectivity Plan Update

8. Public Comment

9. Adjournment

3. Approval of Minutes

Action Item

4. Chair Update

COIT

Meeting Date	Theme
March 4	B&P – Enterprise Dept
March 11	B&P – Enterprise Dept
March 25	B&P – General Fund Dept
April 1	B&P – General Fund Dept
April 8	B&P – General Fund Dept
April 15	B&P – General Fund Dept
April 21	**COIT – Enterprise Project Approval**
May 6	**COIT – General Fund Project Approval**

Capital Planning

Meeting Date	Theme
March 28	Enterprise Dept Capital Budgets
April 4	GF Capital Budgets
April 18	GF Capital Budgets
May 2	**GF Capital Budget Discussion**
May 9	**GF Capital Budget Approval**

5. CIO Update

6. Property Tax Assessment System

Assessor-Recorder

Property Assessment and Tax System

Project Objective

- Modernize and secure the property tax systems that enable assessment and collection of approximately $2 billion in annual revenue;

- Improve service and transparency to taxpayers; and

- Provide financial forecasts and analysis to Policymakers

Major Stakeholders

- Assessor-Recorder (ASR), Treasurer/Tax Collector (TTX) and Controller (CON)

- Property and Business Owners/Taxpayers, Policymakers and City Departments (DBI, DPW, Planning, GIS/DT, CDO)

Legacy System Challenges

- ASR and TTX/CON systems are at the end of their useful life and are functionally obsolete.

- Multiple single points-of-failure and lack of redundancy place core government functions at risk.

- Data exchanged between ASR and TTX's separate systems lead to errors and time-consuming manual corrections.

- Systems are inflexible with missing controls or broken business rules, and require manual workarounds.

- Databases do not support revenue forecasting and production analysis or reporting.

- System limitations result in:
  - Forgone property tax revenue
  - Uncertainty and confusion for property owners and taxpayers
  - Lack of information to improve productivity and forecast revenues

Legacy System Challenges

Project Benefits

- Improve Taxpayer Service: Integrate property tax and assessment functions among the three departments for better customer service

- Improve Revenue Collection: Increase turnaround time for assessments and provide timely tax billing, revenue collection and certification.

- Increase Access and Transparency: Improve information available to public and policymakers and enable better revenue forecasting and data analysis

- Increase Efficiency and Quality: Re-engineer assessment and tax business processes based on best practices and eliminate manual processes

- Build a Resilient IT Infrastructure: Provide robust data retention, backup, storage and disaster recovery for the City's property tax functions

Project Progress To-Date

April 2015	ASR hired Project Manager
May 2015	COIT approved second round of funding for critical project scoping
June 2015	Conducted peer research with other California counties
July 2015	Formed Project Governance with ASR, TTX, CON Established Quarterly Executive Committee and Steering Committee meetings
August 2015	Released Request for Information (RFI) for vendor solutions
October 2015	Released RFP for consultant to 1) Develop business requirements/uses cases for ASR/TTX/CON and 2) Conduct project readiness assessment and project roadmap
October 2015	Awarded contract to Gartner Inc.
December 2015	City Services Auditor publishes ASR "as-is" business process maps
March 2016	Planned start of Gartner's requirements/readiness contract

Project Timeline
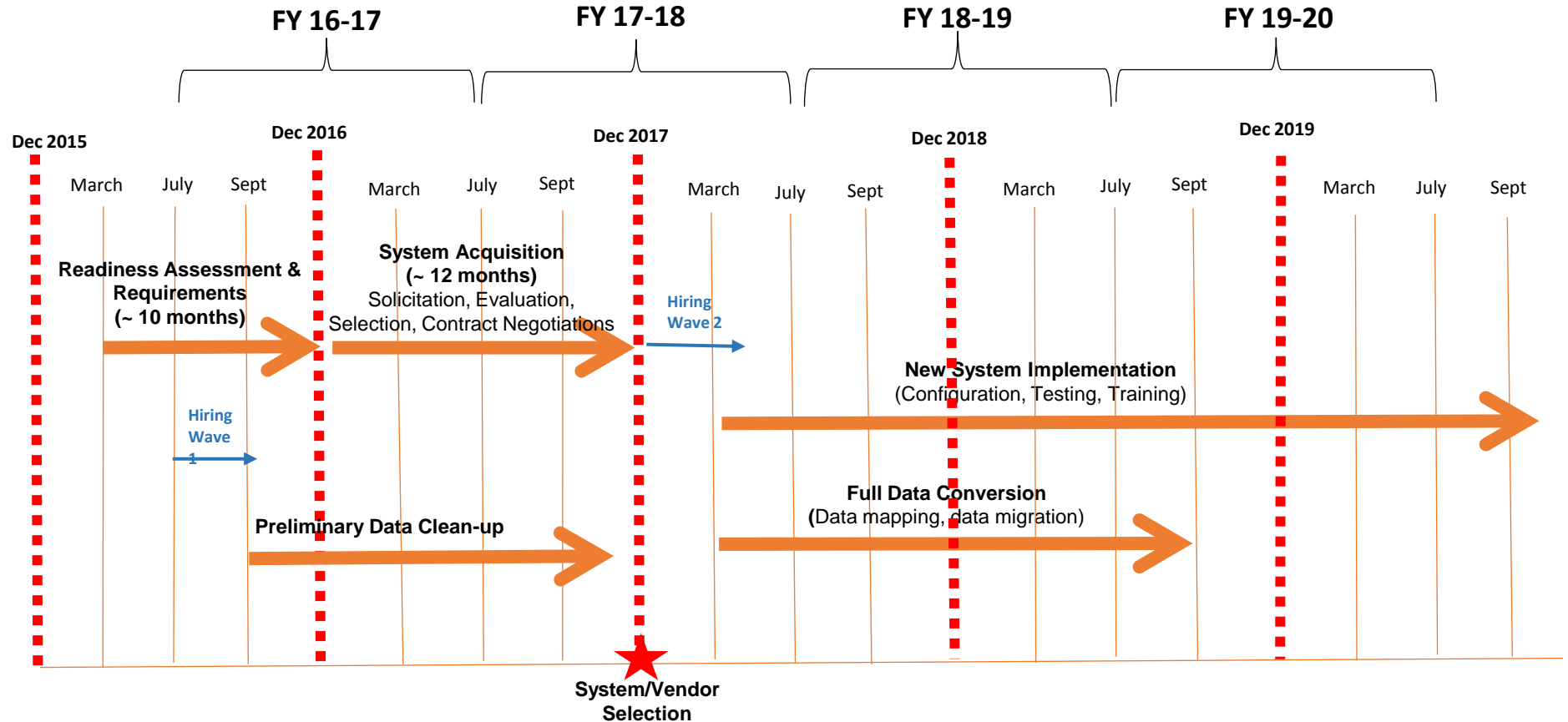
Proposed Budget Plan

	REQUIREMENTS, PROCUREMENT & DATA CLEAN-UP FY16/17	SYSTEM(S) IMPLEMENTATION & FULL DATA CONVERSION				GO-LIVE YEAR FY21/22	TOTAL
		FY17/18	FY18/19	FY19/20	FY20/21		
Salary & Fringe Costs	763,735	1,955,037	3,060,633	3,078,129	3,170,473	3,265,587	15,293,594
Hardware & Hosting	100,000	900,000	900,000	800,000	600,000	600,000	3,900,000
Software & Implementation		10,200,000	4,200,000	4,200,000	4,200,000	1,480,000	24,280,000
Other Professional Services	1,100,000	1,250,000	2,050,000	1,000,000	400,000	-	5,800,000
Contingency / Management Reserve	-	-	1,757,115	1,757,115	1,757,115	-	5,271,345
Total Budget	**1,963,735**	**14,305,037**	**11,967,748**	**10,835,244**	**10,127,588**	**5,345,587**	**54,544,939**

COIT SUBMISSION	1,960,000	18,120,000	11,970,000	10,840,000	11,670,000		**54,560,000**

Investments Around California

Integrated Assessment and Property Tax Systems

Riverside County
- $98 million investment to develop an integrated system to serve the Assessor, Tax Collector, and Auditor/Controller
  - ➢ $28 million contract with Thomson Reuters (TR) for software licensing, implementation, and post-go live support

San Diego County
- $42.6 million contract with Hewlett Packard (HP) as system integrator for TR product

Kings County
- < $30 million for TR software licensing and implementation

San Mateo County
- $2.9 million for critical project development phase (as-is process mapping, future business/system requirements, market scan)
- Competitive RFP issued; Contract award expected in May 2016.

Custom Developments

Los Angeles County
- First phase of $115 million project for Oracle-based custom development to replace Assessor's legacy system

CITY & COUNTY OF
SAN FRANCISCO

Connectivity Plan Update 2016

Department of **Technology**　　　March 17, 2016

Connectivity Plan

Objectives
- Phase 1 project Updates
- Review of Phase II Recommendations
- Review of next steps for the Connectivity Plan

Connectivity Working Group	
• Department of Technology	• Mayor's Office of Civic Innovation
• Committee on Information Technology	• Mayor's Budget Office

Connectivity Plan Phases

Phase I **Phase II** **Phase III**

1
Fiber to City Buildings

2
Dig Once Ordinance

3
#SFWiFi

4
Increase Broadband Choices at Home

5
Digital Inclusion Program Recommendations
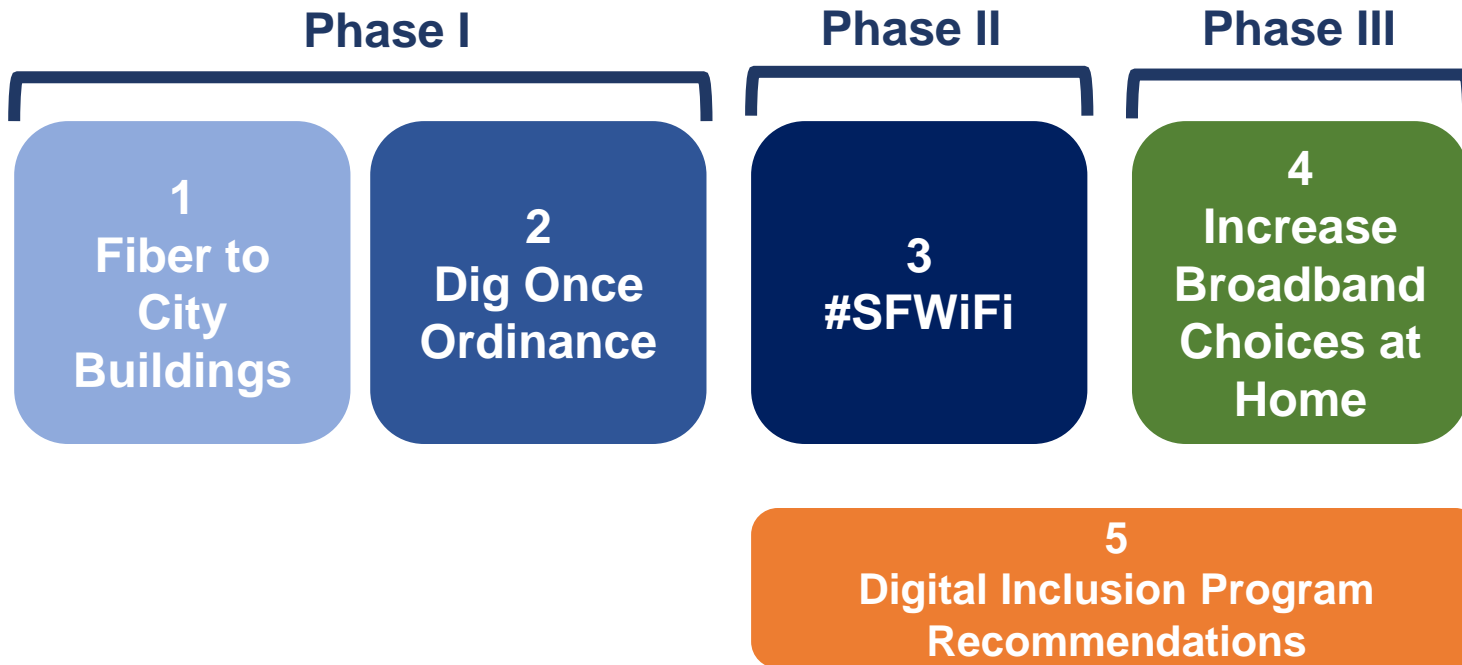
Fiber to City Buildings Update

2016 Connectivity Plan Update

- In the last two fiscal years, DT brought fiber to 50 additional buildings, for a total of 282.

- Added redundancy to many buildings and connected other facilities.

- Municipal fiber network expanded from 180 to 216 miles as of Feb. 2016.

Buildings Connected in Fiscal Years 2014-15 & 2015-16	
Department	Number
Public Health	10
Human Services Agency	5
Library	10
Police	4
Rec & Park	6
Fire Department	10
Other	5
Total	50

Fiber to City Buildings Request

- Fiber to City Buildings: recommended 2-year plan (FY 16-17 and 17-18)
  - Request $2.05 million in funding to allow DT to connect an additional 41 buildings.
    - Includes Rec and Park's request to connect facilities

Fiber to City Buildings: 2-Year Plan

Department	FY 16-17			FY 17-18			Grand Total
	Funded	Proposed	Total	Funded	Proposed	Total	
Asian Art Museum		1	1				**1**
DPH	5		5		7	7	**12**
Elections					1	1	**1**
Fire	4		4	1		1	**5**
H S A					3	3	**3**
Library	7		7	7		7	**14**
Multiple (Shared DPH & HSA)					2	2	**2**
Police					2	2	**2**
Public Defender		1	1				**1**
PUC	1		1				**1**
REC		12	12		12	12	**24**
SFMTA	13		13	10		10	**23**
Grand Total	**30**	**14**	**44**	**18**	**27**	**45**	**89**

Fiber to City Buildings: 2-Year Plan

Recommended 2-Year Option Cost of Connecting Buildings			
	FY 16-17	FY 17-18	Total
Cost	750,000	1,300,000	2,050,000

Fiber to City Buildings: 4-Year Option

Dept	FY 16-17			FY 17-18			FY 18-19			FY 19-20			Grand Total
	Funded	Proposed	Total	Funded	Proposed	Total	Funded	Proposed	Total	Funded	Proposed	Total	
Asian Art Museum								1	1				1
DPH	5		5					3	3		4	4	12
Elections								1	1				1
Fire	4		4	1		1							5
H S A											3	3	3
Library	5		5	6		6	3		3				14
Multiple (Shared DPH & HSA)								1	1		1	1	2
Police								2	2				2
Public Defender		1	1										1
PUC										1		1	1
REC		5	5		4	4		7	7		8	8	24
SFMTA	13		13	8		8				2		2	23
Grand Total	**27**	**6**	**33**	**15**	**4**	**19**	**4**	**14**	**18**	**3**	**17**	**20**	**89**

Fiber to City Buildings: 4-Year Option

4-Year Option Cost of Connecting Buildings					
	FY 16-17	FY 17-18	FY 18-19	FY 19-20	Total
Cost	300,000	200,000	700,000	850,000	2,050,000

Fiber to City Buildings Request

Fiber Request Summary

	FY 16-17	FY 17-18	FY 18-19
City Buildings	$750,000	$1,300,000	$0
Housing Authority	$315,000	$650,000	$650,000
SFO	$950,000	$0	$0
Backbone Resiliency	$0	$1,500,000	$1,500,000
Total	$2,150,000	$3,450,000	$2,150,000

Fiber Backbone for Public Housing Wi-Fi

- **Needs:**
  - Demand for wireless has outstripped initial network design.
  - Equipment, both switches and Wi-Fi access points are at end of life.
  - Demand for support for a wireless network serving over 6000 units.

- **Opportunities:**
  - 29 Buildings are being rehabilitated to varying degrees through the Rental Assistance Demonstration (RAD) program, will allow for improvement of wiring.
  - 4 Properties are being rebuilt through the HopeSF program, will allow for state of the art infrastructure within the buildings
  - The California Public Utilities Commission, California Advanced Services Fund—Public Housing Grant

Wi-Fi: Private-Public Partnership

- **DT Role:**
  - Maintain core network and Internet connection
  - Establish a clear point of demarcation in each housing development to enable rich, in-building networks
  - Expand fiber network to reach more public housing sites over time
  - Assist housing developers in seeking a provider(s) to install and manage the network

- **Private-Partner Role**
  - Install and maintain in-building networks meeting #SFWiFi Standard
  - Sponsor individual developments

Public Housing Fiber Expansion

- **Current Network**
  - Connects 42 properties
  - 11 directly on fiber
  - 32 connected by wireless bridge

- **Proposed**
  - Reconfigure fiber network to provide added reliability
  - Extend fiber to 31 properties over three years
  - Replace wireless bridges on an interim basis for sites that will not initially be connected to fiber
  - Replace switches to connect to core network
  - Create a point of interconnection where each

Public Housing Fiber Expansion

Extend Fiber to All SFHA Buildings

		FY 16-17	FY 17-18	FY 18-19	Total
Additional Sites	31	250,000	650,000	650,000	1,550,000
Reconfiguration fiber backbone		65,000			65,000
		315,000	650,000	650,000	1,615,000

Fiber to SFO

Purpose: improve network capacity and reliability to SFO other locations

- Presently the public safety radio system, the SFO Data Center, San Bruno Jail and SFPUC corporation yard and substations are connected by dark fiber from BART and PG&E. The City has exhausted its fiber capacity from these sources

- Current fiber routes design has greater vulnerability

- Current + future City connectivity demands require additional fiber.
  - SFO Data Center, San Bruno Jail (both Sheriff and DPH), SFPUC Millbrae, public safety radio and SFPD body camera initiative

- Cost: $950,000

Fiber Backbone Resiliency

- Beginning FY 17-18 through FY 18-19

- Provide greater resiliency through redundancy

- Route diversity to critical buildings

- Separate fiber entrances

- Reduce carriers circuits used for redundancy

Cost: $3,000,000

City Fiber Facilities Ordinance

- **DT is required to "list, map and catalog" City-owned fiber optic facilities by Dec. 1, 2016**

- **Fiber-optic facilities include:**
  - Conduit, cables, strands, connectors/splitters, transmitters and receivers

- **DT to augment information stored in "Fiber Manager" to address legislation**

- **DT requires departments' cooperation to collect information:**
  - Conduit, transmitters/receivers

- **The PUC shall "consider and approve" any citywide, e.g., fiber to the home/business, network**

Capital Planning Request

Requests Submitted to CPC

	FY 16-17	FY 17-18
CCSF Connectivity Project (Fiber to City Buildings & Backbone)	$750,000	$2,800,000
Fiber to SF Housing Authority	$315,000	$650,000
Fiber to SFO	$950,000	-
Dig Once Implementation	$2,600,000	$6,900,000
Total	$4,615,000	$10,350,000

Dig Once

Dig Once Update

- Dig Once Requirements

- Current Projects

- Planning for Upcoming Fiscal Years

Dig Once Requirements

- Initial requirements presented to COIT (August)

- DT moving forward with existing projects

- Dig Once Requirements updated in response to feedback:
  - Incremental costs
  - Timing of payment
  - Design responsibility
  - Technical specifications
  - Streamlining

- **Changes reflected in Dig Once draft published 3/14/16**

- **Additional feedback received from PUC**

- **Anticipated revision date is 4/1/16**

Dig Once Active Projects

- DT has initiated projects with Public Works

- Ongoing project: Potrero St.

- We have begun design work on several others
  - Upper Haight
  - Geary
  - Inner Sunset

Dig Once Proposed Projects

- **FY 16-17 - $2,536,000 for projects:** 9 projects, 3 in construction and 6 in design

- **FY 17-18 - $6,917,000 for projects:** 12 projects, 6 in construction, 6 in design

- 200,000 in each year for DT Project Management.

Project Name	Project Lead	Current Phase	Linear Feet	Construction Cost	Design, Planning, Engineering	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Potrero Ave	Streetscape	Construction	7,000	$900,000	$270,000	$1,170,000			
Upper Haight	MUNI Forward	Design	3,500	$350,000	$105,000	$94,500	$350,000		
Inner Sunset Streetscape	MUNI Forward	Design	3,300	$330,000	$99,000	$89,100	$330,000		
Geary Concrete	MUNI Forward	Design	22,000	$2,200,000	$660,000		$660,000	$2,200,000	
22 Fillmore	MUNI Forward	Pre-planning	10,000	$1,000,000	$300,000		$300,000	$1,000,000	
L-Taraval	MUNI Forward	Pre-planning	7,000	$700,000	$210,000		$210,000	$700,000	
Lower Stockton	MUNI Forward	Design	1,300	$130,000	$39,000		$39,000	$130,000	
Geary Phase 2	MUNI Forward	Pre-planning	12,000	$1,200,000	$360,000			$360,000	$1,200,000
Geary	Water	Design	4,200	$420,000	$126,000	$126,000	$420,000		
21 Street	Water	Design	6,000	$600,000	$180,000				
Pacheco	Water	Design	2,750	$275,000	$82,500		$82,500	$275,000	
Castro	Water	Design	14,800	$1,480,000	$444,000			$444,000	$1,480,000
Eureka	Water	Design	6,500	$650,000	$195,000			$195,000	$1,235,000
Green	Water	Design	4,800	$480,000	$144,000		$144,000	$480,000	
Coso	Water	Pre-Planning	7,250	$725,000	$217,500			$217,500	$725,000
7th street	Water	Pre-planning	17,300	$1,730,000	$519,000			$519,000	$1,730,000
Better Market Street	Public Works		13,200	$1,320,000	$396,000			$396,000	$2,508,000
			142,900	$14,490,000	$4,347,000	$1,479,600	$2,535,500	$6,916,500	$8,878,000

City and County of San Francisco Department of Technology

Dig Once Program
Department of Technology

Total Project Funding	Total CPC Funding	Total Other GF Funding	Total NGF Funding	Total NGF + GF Funding	Total Spent
$2,000,000	$2,000,000	$0	$0	$0	$1,350,000

	Status	Comment
Scope	🟢	Determined by budget.
Schedule	🟡	Just commencing 1st project, Potrero.
Budget	🟢	Within budget. Requested $2.6M in FY17 and $6.9M in FY18 from Capital Planning.

Risks	Uncertain requirements for participation by SFPUC. Late entry into projects has increased cost. Demand for conduit uncertain.

#SFWiFi Connectivity

#SFWiFi and ICT Plan Goals

Category	ICT Plan Goal	Connectivity Objective
City Buildings	Support, Maintain, & Secure Critical IT Infrastructure	High-speed Wi-Fi in all City buildings
Public Housing	Support, Maintain, & Secure Critical IT Infrastructure	High-speed Wi-Fi in all Public Housing Common Spaces
Public Spaces	Improve Access & Transparency	1. Alleviate the digital divide by providing free wireless access in public spaces
		2. Deploy #SFWiFi in high value public spaces within San Francisco City boundaries

#SFWiFi Steering Committee

- Department of Technology (DT)
- Committee on Information Technology (COIT)
- Mayor's Office of Civic Innovation (MoCI)
- City Administrator's Office (ADM)
- Mayor's Budget Office (MBO)
- Capital Planning Committee (CPC)
- Library (LIB)
- Public Utilities Commission (PUC)
- Recreation and Parks (REC)
- Airport (SFO)
- Department of Public Health (DPH)

#SFWiFi Connectivity

A strong and reliable #SFWiFi network to support City business:

- **Public Safety**: enables fire trucks to update mapping information, communicate with operational command, and provide emergency status updates to firefighters in the field.

- **Public Health**: allows DPH clinicians to access patient records and other important information, regardless of location.

- **Visitor Services**: allows passengers to load their flight information, navigate the airport, and check the flight status at SFO.

A strong and reliable #SFWiFi network to offer public connectivity:

- Market St., parks + rec centers, libraries, select public spaces.

#SFWiFi Emerging Standards

- **SSID Name**: #SFWiFi, excepting SFO

- **Minimum speeds**: Wireless networks broadcasting #SFWiFi will provide a minimum performance of <u>25 mbps download</u> and <u>3 mbps upload</u>

- **No Authentication**: Provide best user experience and simple access; considering localized landing pages for branding and communication
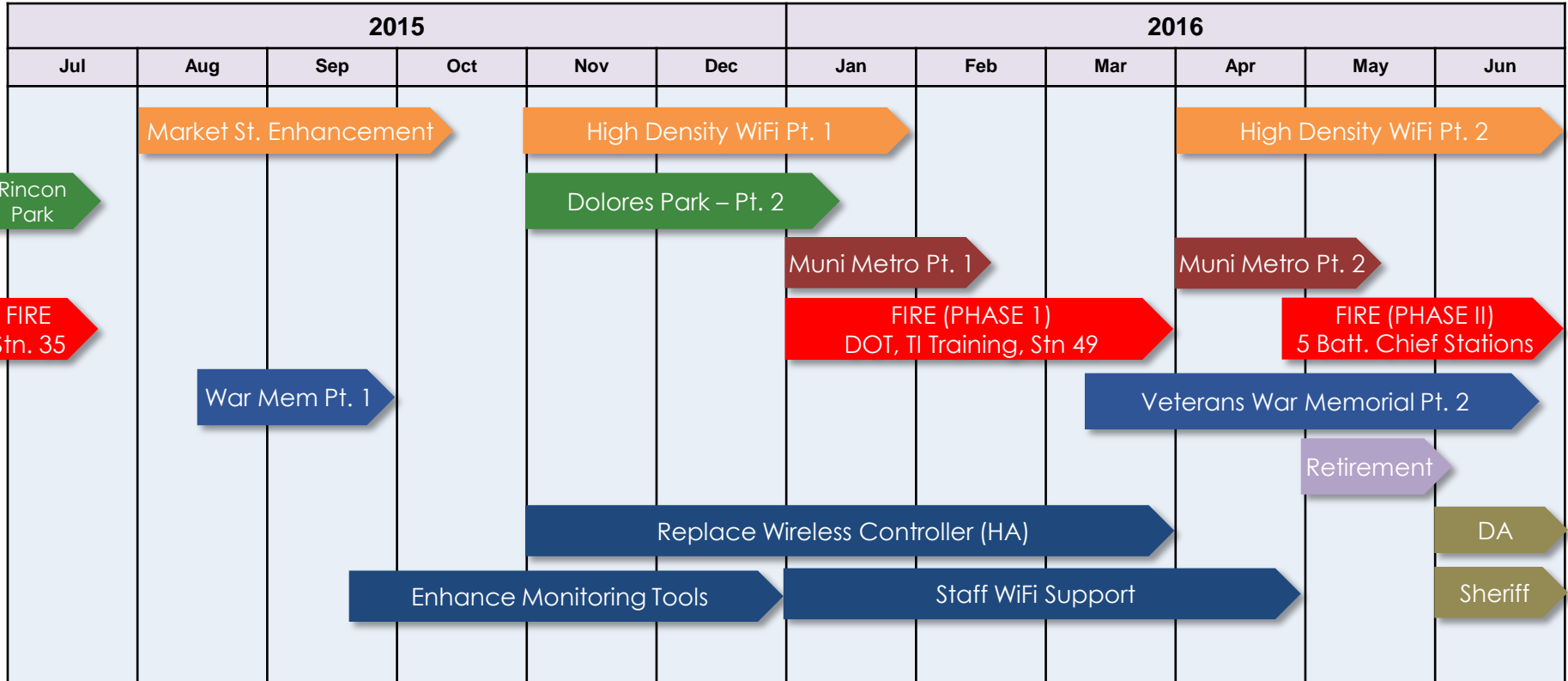
#SFWiFi Stats – Market St. + Parks

January 2016

Unique Clients 197,809

Total Sesions 9,158,901

Avg. Duration 00:10:43

Total Throughput 29.6 TB
uploads | downloads

#SFWiFi Timeline (Funded)

	2015						2016					
Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun

- Market St. Enhancement
- High Density WiFi Pt. 1
- High Density WiFi Pt. 2
- Rincon Park
- Dolores Park – Pt. 2
- Muni Metro Pt. 1
- Muni Metro Pt. 2
- FIRE Stn. 35
- FIRE (PHASE 1) DOT, TI Training, Stn 49
- FIRE (PHASE II) 5 Batt. Chief Stations
- War Mem Pt. 1
- Veterans War Memorial Pt. 2
- Retirement
- Replace Wireless Controller (HA)
- DA
- Enhance Monitoring Tools
- Staff WiFi Support
- Sheriff

#SFWiFi Potential Projects (Funding Required)

	2016					2017					
Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun

City Hall

1 South Van Ness

FIRE – Phase 3 (Locations TBD)

REC PARK – Additional Parks and Rec Centers

Continued Stakeholder Engagement & Expansion Discussions + Planning
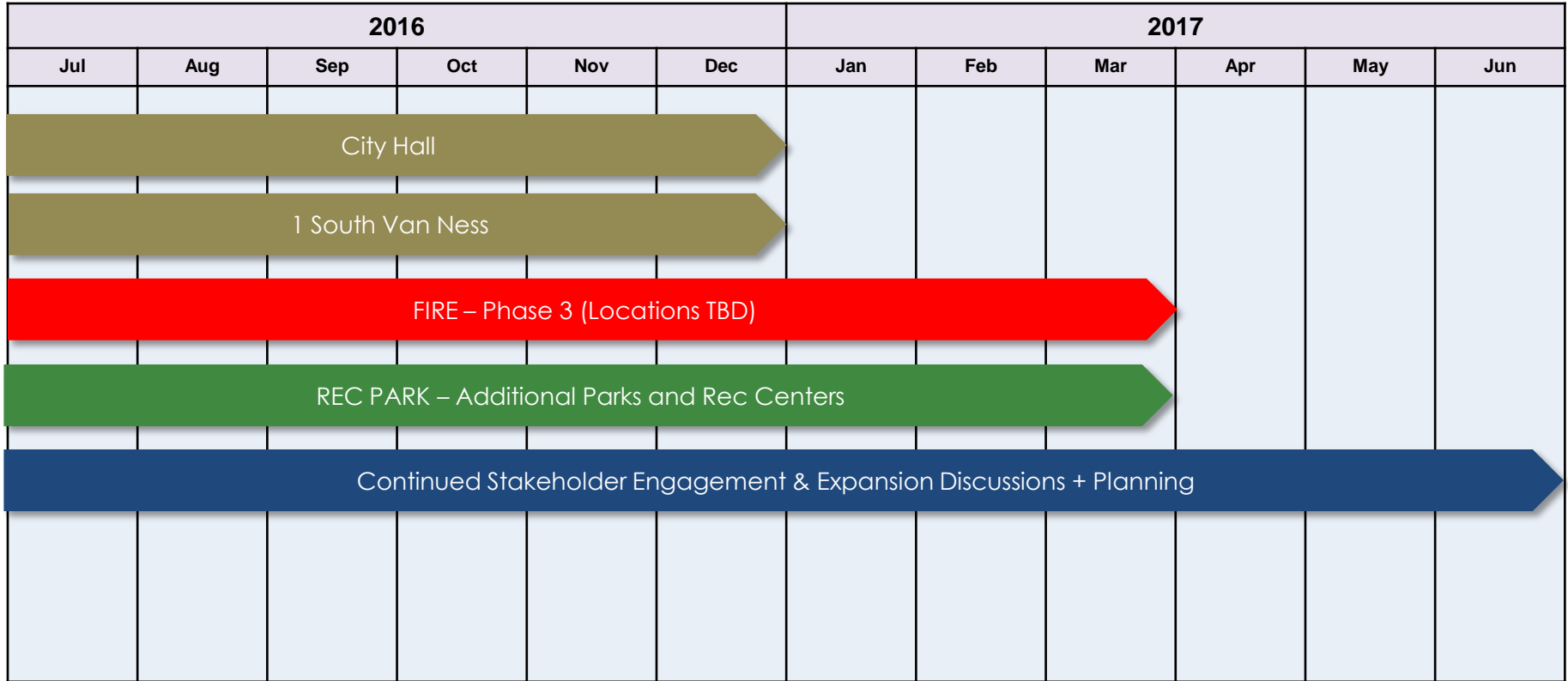
#SFWiFi Next Steps

- Engage larger stakeholder group to establish #SFWiFi expansion priorities

- Explore opportunities for city department and/or external partnerships to expand #SFWiFi

Treasure Island Connectivity

Current and Future Plans:

- DT is working with TIDA and TICD to develop a comprehensive strategy for future connectivity, including #SFWiFi

- Underground: Agreement on "joint trench" including 3 conduit systems, one dedicated to DT

- Continuing discussions regarding fiber to the premise, #SFWiFi, and above ground facilities (i.e. poles, etc)

Broadband Choices

Connectivity Plan: Next Phases

Broadband Choices at Home (Fiber to the Premise)

- Efforts of the previous phases expected to inform this phase

- DT is completing initial research and study (CostQuest) Q4 of FY 15-16

- Budget & Legislative Analyst (BLA) report issued by Supervisor Farrell

Digital Inclusion

- Researching recommendations & developing action plan.

7. Calendar Review

8. Public Comment