The SFMTA's Real Estate and Facilities Vision for the 21st Century

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SFMTA | Municipal Transportation Agency

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Contents

Figures

Tables

Executive Summary

A. BACKGROUND

As the SFMTA enters its second century, it is confronting significant challenges:

- Aging and inefficient facilities are hindering operations; certain facilities require complete rebuilds
- Key SFMTA facilities would be expected to suffer catastrophic damage in an earthquake, potentially rendering major portions of the system unusable; the economic recovery of the City would require a fully functional transit system
- Yards are operating at crush capacity and will not be able to accommodate anticipated fleet growth
- The entire system of real estate and facilities, which has evolved since the late 19th century, could be improved
- There are inadequate resources to fund facility maintenance and expansion

This report, *The SFMTA's Real Estate and Facilities Vision for the 21st Century,* provides a roadmap for addressing these challenges and focuses on looking within the Agency to find ways to reconfigure, consolidate, or expand existing facilities to best meet operational needs while identifying cost savings and revenue-generating opportunities.

The goals of the report are summarized below:

- Provide maintenance and operations facility recommendations that are flexible and will allow the SFMTA to support its projected fleet and accommodate the growth projected in the Transit Fleet Plan
- Recommend measures to improve operational efficiency, including reconfiguration of space, while minimizing disruptions to ongoing operations
- Identify measures to rehabilitate or replace structurally vulnerable and obsolete facilities
- Move forward to meet Agency goals for transit-oriented development (TOD) and joint development (JD)
- Identify funding sources, including ground leases for TOD/JD sites and improvements to its retail and telecommunication leases
- Incorporate sustainability initiatives whenever possible to realize cost savings
- Provide a roadmap for implementation

B. STUDY METHOD

Based on a review of the Agency's existing relevant documents and studies, a set of criteria was established to assess facilities' conditions and their TOD and JD potential. In addition, site visits were conducted, the Agency's current leases were reviewed to find opportunities to improve terms, and a peer agency analysis was performed to determine if there were any TOD/JD or facilities layout and practices the Agency could adopt to improve operations and enhance revenues. SFMTA staff from various departments and at all levels was involved throughout the process, participating in interviews and workshops to provide feedback and input for each deliverable.

C. OPERATIONS AND MAINTENANCE FACILITIES ANALYSIS AND FINDINGS

The site visits identified both inefficiencies and opportunities for the SFMTA's real estate and facilities. Issues identified include the following:

- Relocation needs due to leases expiring
- Facilities operating at or beyond capacity
- Facilities at or near the end of their useful life
- Inefficient location of functions
- Inadequate outfitting of facilities with necessary equipment

Based on these findings and the fleet growth projections, the report recommends a system-wide solution that is flexible, improves the efficiency of operations, and allows room for growth beyond the 2030 fleet projections without any major new real estate investments. However, that does not preclude the SFMTA from seeking additional real estate to meet its needs in the future, as changing conditions may create greater needs that are unknown at this time.

The solutions are grouped into two categories: independent and dependent projects. Independent projects can be completed at any time since these projects would not be operationally dependent on other projects. Dependent projects should be completed in sequence to accommodate the projected fleet growth and provide operational efficiencies without negatively affecting ongoing operations during construction.

Independent projects include the following:

- **Bayshore:** All necessary approvals have been secured for the Bayshore property lease with a Right of First Negotiation. The option would allow the SFMTA to negotiate to purchase the property at a future date, for the agency's use as a Long-Term Tow Yard, for Training, Video Shop, Traffic Signal Shop, and possibly for other transit and transportation related uses (as allowed under the zoning and CEQA process). Relocating the Video Shop from Marin to

Bayshore and moving the historic streetcars from Marin to Metro East will allow the SFMTA to negotiate a MOU with the Port to temporarily use Marin during the Woods renovation and later terminate the MOU with the Port. The Traffic Signal Shop, rather than moving from Rankin to Marin as originally discussed, will move to Bayshore in mid-2013.

- **Flynn**: Restripe the bus parking area from 14-foot-wide lanes to 11 feet 6 inches wide to allow for 18 additional buses in the parking area without parking in the circulation areas. This would make the facility more efficient and provide a safer operating environment.
- **Vehicle Lift Replacement:** Continue the replacement of all vehicle lifts in the SFMTA's system. All of the vehicle lifts in the system have reached, or will soon reach, the end of their useful life.
- **Scott Facility**: Convert this facility to accommodate the Enforcement Division. By enclosing a portion of the parking area, Go-4 maintenance could be moved to the second level in place of 25 parking spaces. In addition, the ground floor should be upgraded to improve operational efficiency of non-revenue vehicle (NRV) maintenance, or NRV maintenance could be relocated to allow the Enforcement Division to use the entire Scott facility.
- **Sustainability Projects**: Sustainability projects are independent scopes of work that the SFMTA could implement to improve the performance of its facilities and reduce its operating costs. Since the other projects in this report would lead to the reconstruction of several facilities, the sustainability projects focus on four facilities that would remain largely unaltered through 2030: Flynn, Green, Green Annex, and the current 13-acre Muni Metro East (MME). Sustainability features will be incorporated into the design of all facilities that are being redeveloped (Presidio, Potrero, and Kirkland) substantially renovated (Woods, Burke, Marin, and Scott), and newly constructed (MME Expansion).

Dependent projects fall into four groups:

- **Marin/Rankin:** Move Traffic Signal Shop from Rankin to Bayshore in mid-2013. Also relocate the Video Shop from Marin to Bayshore and the historic streetcars from Marin to MME. If a new short-term, five-year MOU is negotiated for the SFMTA to continue to use Marin, the facility could be developed to accommodate some bus maintenance functions until the renovation of Woods is complete. If 1399 Marin is later vacated by the SFMTA, it could allow the SFMTA to terminate the MOU with the Port of San Francisco and use the funds to provide a permanent facility for the SFMTA Signal Shop elsewhere.
- **MME/Cameron Beach/Green:** Consolidate Body Repair and Paint Shops at MME and equip the facility so it can be fully functional. Relocate the entire historic streetcar operation and maintenance to MME, including the canopy from Cameron Beach Yard to MME, if possible. Demolish Cameron Beach maintenance and operations facility and revise the storage yard and turnaround. Complete re-rail project planned for Green. The Cameron Beach site would be used to store at least 24 two-car light rail vehicle (LRV) consists to accommodate the projected LRV fleet growth.

- **Islais Creek/Burke/Woods:** Complete Islais Creek (Phase 1 and Phase 2) with provision for standard and articulated buses. Upgrade Burke to make better use of the space and improve the working and storage environment. Relocate Component Rebuild from Woods to Burke to simplify movement of materials between Component Rebuild and Central Storeroom. This will allow for the Parts Storeroom at Woods to be consolidated in the area vacated by Component Rebuild. The space vacated by the Parts Storeroom at Woods will allow for greater flexibility to accommodate articulated buses in the repair bays.
- **Tubbs or Alternative Site/Flynn/Presidio/Overhead/Potrero/Kirkland:** By demolishing and rebuilding Presidio, Potrero, and then Kirkland, these facilities would be better suited to accommodate standard or articulated buses, diesel or trolley buses, and their associated growth while also providing JD opportunities at Presidio and Potrero.

D. REVENUE GENERATORS

The SFMTA has the ability to generate additional revenues through better utilization of its real estate assets. This evaluation includes TOD and JD opportunities on SFMTA properties, leases with retail tenants in parking garages, telecommunication leases, and office space leases in which the SFMTA is the tenant. Advertising revenues from billboards were not within the scope of the report and neither were possible revenues from the sale of Transfer of Development Rights (TDR).

Transit-Oriented Development and Joint Development. Three priority sites were identified for TOD/JD potential: Presidio South, Upper Yard, and Potrero. As part of the project scope, the potential of the two Central Subway sites (Chinatown Station and Yerba Buena/Moscone Station) was also evaluated. These priority sites were chosen because of their ability to help the SFMTA achieve its long-term goals. Among the many criteria used to evaluate the SFMTA's sites for TOD/JD potential included the ability to:

- Improve SFMTA operations and maintenance
- Increase the use of public transit, bicycling, walking, and ridesharing
- Leverage new development as a catalyst for public/private partnerships to replace aging and obsolete SFMTA facilities and infrastructure
- Generate new revenues by maximizing the value of land

Below is a summary of findings from the TOD/JD evaluation based on current real estate market conditions:

- **Presidio**: This 5.75-acre site's facility is structurally obsolete, has long outlived its effective utility, and needs to be replaced with a new facility on-site. The existing zoning is Public, with 160-D height and bulk districts on the south, Geary Street side, and 40-X height and

bulk districts on the north Presidio, Masonic and Euclid Street sides. It is also a prime candidate for development because of the opportunity to realize significant value from developing the site with housing constructed on the air rights over a rebuilt SFMTA maintenance facility; to achieve the highest return for the SFMTA, the best use for the site would be for residential use. The estimated order-of-magnitude land value for the SFMTA's planning purposes is between $20 million and $40 million ($1.6 million to $3.2 million per year on a ground lease/air rights lease basis). Discussions with neighborhood leaders and organizations, other City Departments, and elected officials should be held to determine appropriate development.

- **Upper Yard**: The Upper Yard is a narrow 0.7-acre parcel of land. The existing zoning is NCT-2 Neighborhood Commercial Transit-2, with 45-X height and bulk districts. If combined with the adjacent one-acre Bay Area Rapid Transit (BART) parcel, the site could be developed with a midrise residential development consistent with the City's vision articulated in the *2009 Balboa Park Station Area Plan*. This site is no longer needed for SFMTA operations and therefore can be made available for TOD. The SFMTA Board approved Resolution 12-137 on November 6, 2012 to explore sale of this parcel to the Mayor's Office of Housing (MOH). The estimated order-of-magnitude land value for planning purposes is between $4.5 million and $9 million ($360,000 to $720,000 per year on a ground lease/air rights lease basis). This represents the preliminary land value of the combined SFMTA/BART site. Using a different approach to valuation, the appraised land value is between $5.29 million for the SFMTA's 0.7-acre parcel and $6.15 million if aggregated with the BART's one-acre parcel ($423,200 to $492,000 per year on a ground lease/air rights lease basis).

  The SFMTA team has met with BART staff to discuss on a preliminary basis, options for incorporating BART's ongoing needs into the new housing project. In the concept plan, the BART Kiss & Ride area would be moved from its current location to San Jose Avenue; BART patrons would walk along Geneva Avenue and turn the corner onto San Jose Avenue to enter the area. Further study is needed to determine whether this configuration would be an effective solution for BART patrons. To avoid structural conflicts with the BART tunnel underground, the concept plan also assumes that the development would be set back 40 feet from the BART tunnel. One issue that would need to be addressed at a future time is the method for allocating land value between the SFMTA and BART parcels. There are different allocation alternatives that can be considered including pro rata based on land square feet, pro rata based on the potential number of units on each parcel, or pro rata based on the potential building area on each parcel. Such an allocation can also take into account the "net developable area" of each parcel since a portion of the BART parcel is not developable because of the station entrance plaza and because of the underground BART tunnel.

- **Potrero**: The 4.4-acre Potrero facility is zoned Public, with 65-X height and bulk districts. It would be ideal for JD because, like Presidio, the existing facility is structurally obsolete, seismically vulnerable, and in need of replacement. The development concept for Potrero is a large floor-plate, campus-type development targeted toward large tech/research and development (R&D) users built on the air rights above a reconstructed SFMTA facility. Such a development would take advantage of the site's large land assemblage, central location, and proximity to the expanding tech market in Showplace Square and South of Market (SoMA). Given the unique nature of the development opportunity, the potential land value that the Potrero project could yield has not yet been estimated. Discussions with neighborhood leaders and organizations, other City Departments, and elected officials should be held to determine appropriate development.
- **The Chinatown Central Subway Station**: The 0.23-acre site for the future Chinatown Station (CTS) is in the new Chinatown Station Special Use District (SUD) with 65-85-N height and bulk districts. The site has limited room for development since the subway head house will occupy most of the parcel. The site would be ideal for ground-floor retail given the high volume of pedestrian traffic. Commercial office, institutional or senior residential uses are potential alternatives for the upper floors. In addition, the site could house a much-needed open space above and around the station. It is estimated that the sale of the development rights at the Chinatown Station site could yield up to $1 million for the SFMTA. An air rights or ground lease would yield up to approximately $80,000 annually.
- **The Yerba Buena/Moscone Central Subway Station**: The 0.34-acre site for the future Moscone Station (MOS) is zoned M-1 with 130-L height and bulk districts. It also has limited room for development. The site would yield a small floor-plate size and would not be ideal for a traditional office building. The site is within the area of the Planning Department's ongoing Central Corridor study and so the development potential and resulting value are unknown at this time. In addition, no new use could be in place until 2019 at the earliest and the dynamic changes in the Yerba Buena South of Market (YBC/SoMA) area further complicate value estimation.

- **Parking Garages**: The facilities site visits also included 10 parking garages, of which four were identified as having development potential, either because of their low usage or location: 5th and Mission, Moscone Center, Performing Arts, and Lombard Street. On average, these garages are 55 percent occupied. The user demographics range from shoppers, theater and convention goers, office workers, and neighborhood residents.

To increase utilization of the SFMTA's current parking garages, several opportunities are discussed. Readjusting prices and early-bird hour rates may encourage usage; many SFMTA garages cited losing patrons from long early-bird rate requirements or competitive pricing from lots nearby. As discussed in the TOD/JD section, redesigning and reprogramming portions of underutilized garages could result in greater usage as well as increased revenue.

Opportunities to make these garages more sustainable to realize cost savings include installing bi-level lighting with motion sensors for energy savings, installing photovoltaic cells to offset the cost of power, and where applicable, collecting and storing rainwater for reuse. The Agency has begun testing the use of bi-level lighting and will be testing LED lighting at Civic Center.

Leases. The SFMTA's current retail, office, and telecommunication leases were also reviewed to identify opportunities to enhance revenues in the case of retail and telecommunications leases in which the SFMTA is the landlord, or to realize cost savings in the case of office leases in which the SFMTA is the tenant. In general, the review concluded that the financial terms of the SFMTA's office leases are favorable and found limited opportunities for associated cost savings. The report concludes that the SFMTA is generally doing a good job of maximizing revenues but does recommend four possibilities for further exploration by the SFMTA:

- Set aside dedicated funding for retail tenant improvements allowance and other capital improvements
- Streamline SFMTA review of new leases and lease renewals
- Encourage the expanded use of professional retail brokers (this is the practice for most SFMTA retail locations)
- Explore further use of participation rents

The SFMTA also has several telecommunication leases, as public buildings are preferred wireless locations within San Francisco. Currently, the Agency has 10 active macrocell leases and a proposal from AT&T to enter a master license agreement for the placement of wireless antenna attachments on SFMTA non-electrified overhead line support poles. Because of the confidential nature of data and recommendations, the *Leases Review and Recommendation* report is a confidential document for internal Agency use only. It found significant opportunities to raise revenue from leasing poles and capacity within the Metro tunnel. The SFMTA successfully negotiated a new license agreement with AT&T in November, 2012, allowing AT&T the opportunity to install its cellular outdoor distributed antenna systems on SFMTA's non-powered support poles.

In addition to the facilities evaluated for TOD/JD for this study, the SFMTA has additional parking facilities including 20 parking lots, which could be pursued separately as opportunities for TOD/JD.

The SFMTA also wishes to find parking for 87 SFMTA-owned Paratransit vans. The van heights range from 109" to 115" (9.08' to 9.58') and are too high to fit into any of the SFMTA's off-street parking garages. The vans are currently parked and maintained at various contractors' sites in San Francisco and Brisbane. Office space for administration and dispatching is also needed. To date, this is still an open issue for the SFMTA and its Paratransit contractors.

Taxi-related facilities are not included in Vision Report, because they are the responsibility of private parties, not the SFMTA.

E. FUNDING AND IMPLEMENTATION PLAN

The Implementation Plan summarizes current costs to implement facilities improvements and potential revenue streams to fund the improvements. It also outlines the implementation activities and considerations.

As shown in Table ES-1, the total capital costs associated with the facility improvements described in the earlier section are approximately $320 million (in 2012 dollars). These costs include the soft costs (e.g., planning, design, construction management, surveying, and testing) and hard (construction) costs. The cost estimates are based on industry standards and are applied on a unit or square-foot basis where possible, with an appropriate contingency to account for San Francisco conditions. Prior to inclusion in the Capital Improvement Plan, it is recommended that the SFMTA conduct an internal costing analysis and revise estimates accordingly and include escalation adjustments to determine final costs. As individual projects proceed, estimates should be updated as additional information becomes available.

TABLE ES-1 – SUMMARY OF FACILITY COSTS (2012 $)*

SFMTA Facility	Capital Costs (2012 $, Millions)
Woods	$51,938
Potrero	$47,237
Presidio Bus	$45,320
MME – Body Repair & paint	$38,117
Kirkland	$33,390
Flynn	$19,866
MME – Existing Building Upgrades	$15,541
Presidio OH	$14,437
Scott	$12,648
MME – Historic Streetcar Storage	$11,287
Cameron Beach	$11,048
Burke	$9,666
Green	$4,348
Marin	$3,656
Green Annex	$1,094
Total	**$319,591**

* based on current industry estimates and without inflation

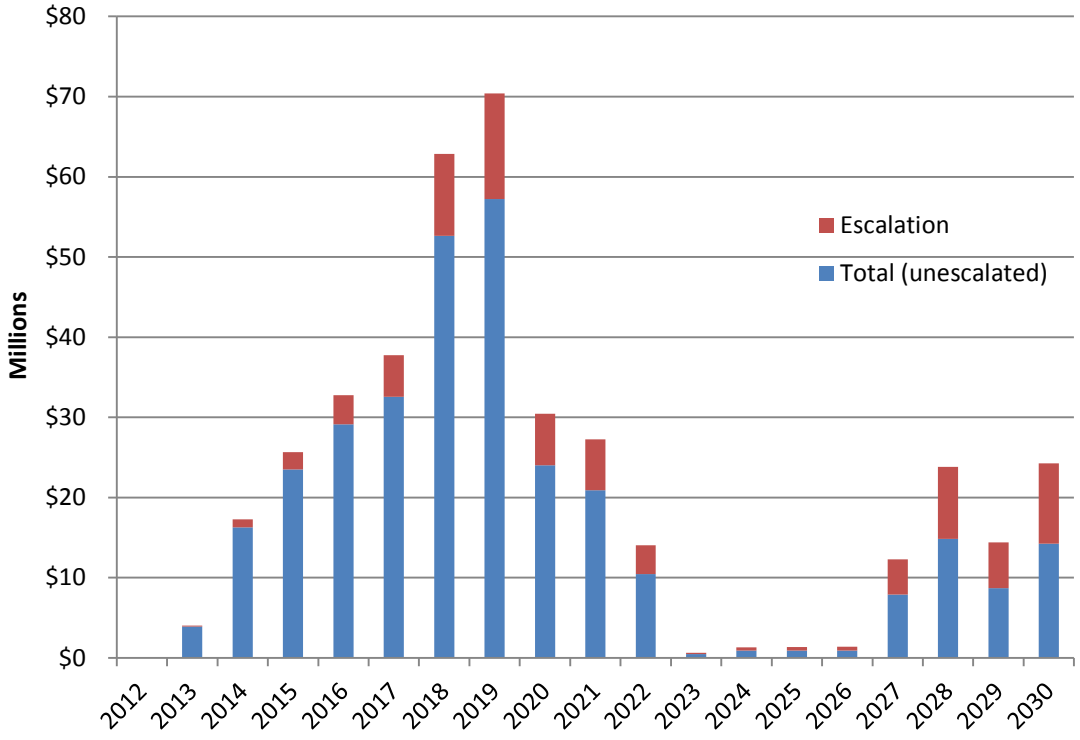
Solutions were prioritized based on the following criteria:

- Physical needs of the facility
- Accommodating projected fleet size and mix
- Minimizing impact to ongoing operations

- Project dependencies (as outlined in Section 4.3)
- Potential funding availability (as outlined in Section 6.3)
- Maximizing SFMTA revenue potential (e.g., TOD/JD projects)

Once an annual inflation factor of 3 percent is incorporated into the estimates, the total cost of the Vision Report is estimated to be $402 million (2012 dollars). As shown in Figure ES-1, annual costs are estimated to range from $4 million in 2013 to $70 million in 2019, with an average annual cost of $21 million. This estimate does not include the cost of any necessary land acquisitions or rents because these needs and costs are unknown at this time.

FIGURE ES-1 – SFMTA'S ANNUAL COSTS (ESCALATED)



The Vision Report costs are significant; they will contribute to SFMTA's state of good repair backlog, which was $2.2 billion as of 2010.[1] Funding and financing solutions are as follows:

- ***Reallocation of existing CIP funds and Bond proceeds*** – In light of the Vision Report recommendations, the SFMTA should consider reprioritizing existing funding to the extent possible.

[1] Federal Transit Administration, *2010 National State of Good Repair Assessment*, June 2010, http://www.fta.dot.gov/documents/National_SGR_Study_072010(2).pdf

- ***State and local funding*** – The SFMTA should communicate with the State Legislature regarding the timetable for the future issuance of Prop 1A, Prop 1B, and 1C bonds and how funds are being allocated.[2] Additionally, the SFMTA should consider reprioritizing how they are spending the facility funding agreement revenue.
- ***TIFIA Loans*** – The SFMTA should pursue obtaining a TIFIA loan for portions of Vision Report not funded by existing funding streams or TOD/JD.
- ***SFMTA revenue bonds*** – The SFMTA should not pursue revenue bonds unless it becomes clear that no other capital funds are available on a timely basis for priority projects.
- ***City and County GO bonds*** – The SFMTA could pursue City General Obligation bonds as it is the most effective local way of financing its capital needs without impact on its operating deficit, even if GO bond proceeds would be limited to SFMTA's facilities rather than equipment needs.
- ***Proposition K renewal*** – The SFMTA should work with SFCTA to ensure that facilities are included in Proposition K renewals.
- ***TIDF/TSP*** – The SFMTA should ensure that the BOS approves the TIDF/TSP and fund facility maintenance from these one-time fees.
- ***Social impact bonds*** – The time and effort associated with developing a social impact bond structure for transit may be otherwise spent pursuing other more proven options. However, the broader societal goals of the SFMTA coupled with the entrepreneurial nature of the Bay Area economy suggest a potential fit that could benefit all parties.
- ***Transfer of development rights*** – Owners of Historic buildings in the Downtown area are allowed to sell development rights for transfer to other parcels within the same area. This tool might be made available for SFMTA parcels, in particular the garages within the Downtown area and as part of the ongoing Central Corridor planning. Typically, though, TDRs are made available in instances where re-zoning reduces parcels' values in order to offer a compensatory tool to owners. Amending the Planning Code to allow such transfers is a policy decision for the Board of Supervisors. It is not possible at this time to estimate the value of such Rights.

While the benefits of the projects outlined in this report are significant, the process of implementing them is quite complex. Implementation will require funding, significant levels of approvals, a high level of coordination, and dedicated staff both in the SFMTA and other City agencies and require significant efforts by Operations to keep required service on the street. Since the SFMTA operates in a challenging environment, a flexible implementation approach has been developed that can be adjusted as needs change, opportunities arise, and funding becomes available.

[2] Note: All Prop 1A and 1B funding is slated for Central Subway.

F. CONCLUSION

The consequences of not moving ahead to address current and future facilities would be significant. The system would remain vulnerable to the effects of the expected earthquake and recovery would be delayed. Future fleet growth could not be accommodated on existing sites and off-site vehicle parking would be necessary. Cost savings would not be realized, nor would revenues from JD, TOD, or lease improvements.

By pursuing the recommendations outlined in this report, the SFMTA will be able to optimize the efficiency of the existing facilities and may be able to limit the need for significant new property acquisitions (e.g., real estate for rail and bus yards) under existing conditions and current fleet projections. If those projections change significantly over time, additional real estate may be required. Furthermore, there are significant negative consequences for doing nothing, because some facilities are at the end of their useful life and the provision of safe, reliable, and efficient transit service to meet growing demand is imperative. By not rebuilding the SFMTA's most obsolete but essential facilities (e.g., Presidio, Potrero, Kirkland) an effective and efficient transportation service delivery system could be jeopardized. However, once implemented, the recommendations outlined in the Vision Report would allow the SFMTA to accommodate the City's growth and corresponding fleet and facility needs, which would result in a more efficient and sustainable system—one that best uses existing SFMTA real estate and facilities' resources to meet future needs.

1 Introduction

Over the past century, the SFMTA has evolved to meet changing conditions as the City's need for public transit and transportation management has grown. This Real Estate and Facilities Vision for the 21st Century Report (Vision Report) will guide the Agency in accommodating its facility and land needs for years to come. The Agency is projecting a significant growth in fleet as well as changes in fleet composition by 2030. However, the amount of land under permanent SFMTA control is not sufficient to accommodate these changes and many of the Agency's facilities are aging and need to be replaced. Key facilities are seismically vulnerable. In response to these challenges, the SFMTA has asked the following questions:

- **Can the current and projected fleet be better accommodated?** Currently, maintenance facilities are at or above capacity, and within the next 17 years, the fleet is projected to grow up to and beyond 20 percent, with some fleet types more than doubling.
- **What should be done to address inefficiencies and poor conditions at existing facilities?** Some are more than 100 years old, and some facilities must be vacated because of expiring leases or seismic vulnerability; individual facilities can be improved and the whole system of facilities can be as well.
- **How can these measures be funded?**
- **Are there opportunities to partner with developers to use SFMTA real estate holdings to raise revenue and to meet City goals for housing and jobs?**

The Vision Report is the product of a comprehensive assessment of the Agency's current facilities and land leases to identify opportunities for operational efficiency, potential cost savings, and alternative revenue streams.

Rather than focusing on the acquisition of additional real estate to accommodate projected fleet needs, the report aimed to first look within the Agency to find ways to reconfigure, consolidate, or expand existing facilities to best meet operational needs, while identifying cost savings and revenue opportunities. This Vision Report seeks to:

- Provide maintenance and operations facility recommendations that are flexible and will allow the SFMTA to support its projected fleet and accommodate the growth projected in the SFMTA's *2010 Transit Fleet Management Plan* (Transit Fleet Plan)
- Recommend measures to improve safety and operational efficiency, including reconfiguration of space, while minimizing disruptions to ongoing operations and maintenance
- Identify funding sources, including ground leases/air rights leases for TOD/JD sites and improvements to its retail and telecommunication leases

- Incorporate sustainability initiatives whenever possible to realize cost savings
- Move forward to meet Agency goals for transit-oriented development (TOD) and joint development (JD)
- Provide a framework for implementation

The recommendations in this report result from a collaborative process between a multidisciplinary team of experts and SFMTA staff, representing a wide range of divisions and at all levels. The report benefits as well from lessons provided by peer agencies. In addition, a series of workshops with internal and external stakeholders was conducted in October 2012; this report reflects comments from those workshops.

The recommendations mirror the complexity of the SFMTA's operations and challenges. These investments in the future of the system will be costly and some of them may be to some degree disruptive. However, this Vision Report is a tool to enable decision makers to put in place the measures needed to ensure the future safety and reliability of the City's transportation system into the 21st Century.

2 Background and Project Drivers

The SFMTA is planning to expand and make changes to its fleet composition in order to sustain current operations and accommodate future demand for ridership, including increased vehicle frequency, service extensions, and service improvements such as the Central Subway project and the Van Ness and Geary bus rapid transit (BRT) projects. As shown in Table 1, the SFMTA's Fleet Plan is projecting a net increase in vehicles of 20 percent, including significant increases in articulated buses (60-foot vehicles) through 2030. These increases have significant operational implications since the Agency's current transit facilities are already at or near capacity. Please note that fleet need estimates will be updated in 2013 and those revised estimates could lead to future need for additional real estate and facilities to accommodate changing conditions.

TABLE 1 – SUMMARY OF SFMTA TOTAL FLEET PROJECTIONS TO 2030[3]

	FY 2010	FY 2030	% Change
Motor Coach (30 feet)	30	25	-17%
Motor Coach (40 feet)	306	349	+14%
Motor Coach (60 feet)	124	207	+67%
Trolley Coach (40 feet)	240	184	-23%
Trolley Coach (60 feet)	73	121	+66%
Light Rail Vehicles	151	208	+38%
Historic Streetcar	24	56	+133%
Cable Car	40	40	-
Total Fleet	988	1,190	+20%

For a detailed listing of fleet projections, please see Appendix A.

As directed by SFMTA staff, the 2011 Request for Proposals (RFP) for *The SFMTA's Real Estate and Facilities Vision for the 21st Century* serves as background for the recommendations made herein.

Based on discussions with SFMTA planning staff, the fleet growth from 2010 to 2030 is assumed to be a straight-line projection. With only a 20-year period (2010 to 2030) and given the projected 20 percent increase shown in Table 1, it was determined that facility requirements would be based on 2020 figures and 2030 figures. The facilities required to accommodate the 2020 projected fleet are labeled "interim" and the facilities required to accommodate the 2030 projected fleet are labeled "ultimate." Should the growth in the fleet be slower (or differently configured) than is contemplated in the Transit Fleet Plan, the recommendations contained herein are still valid. The recommendations will accommodate the increases regardless of when

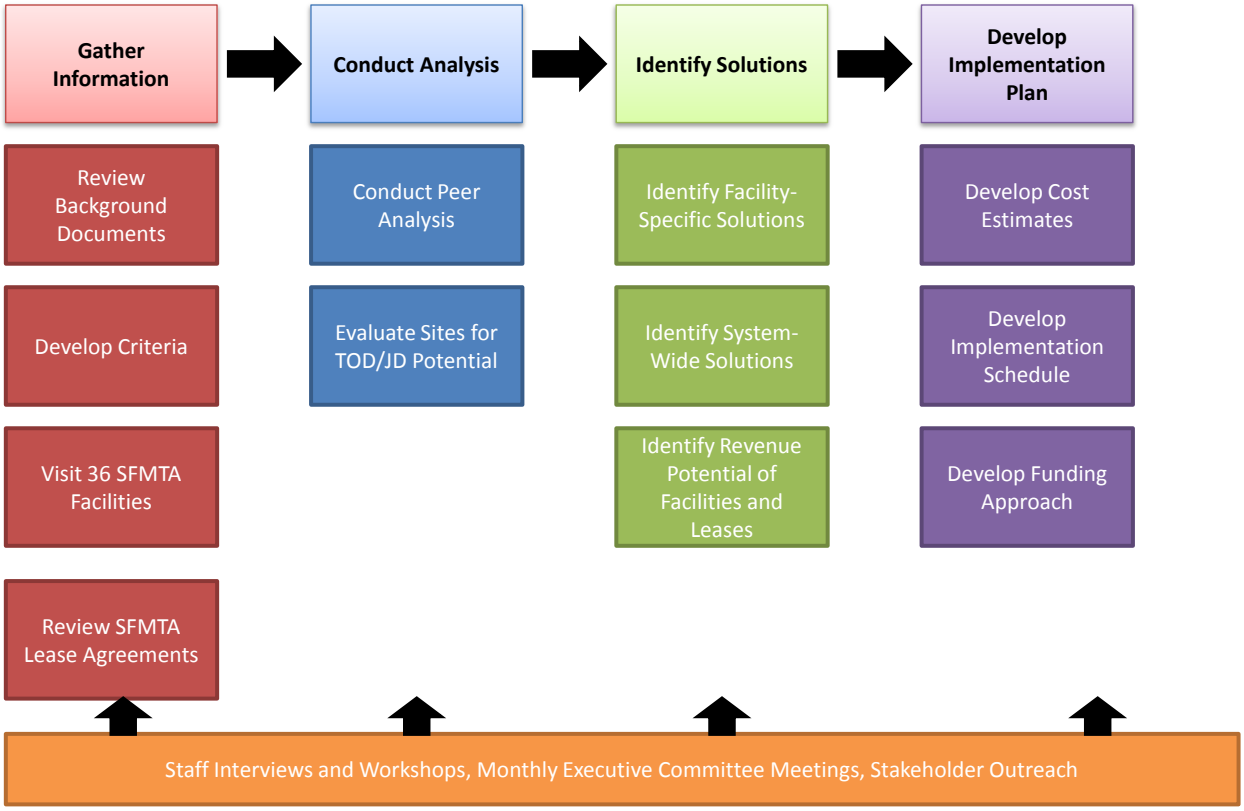
[3] Similar to Figure 14 in the Transit Fleet Plan

they occur. In addition, they will provide significant improvements in fleet operations, reliability, and longevity and provide opportunities for enhanced sustainability and improvements in employee safety and productivity. Please note that updated fleet growth projections are expected in 2013; any revisions not within the capacity accommodated in the Vision Report, may require a relook at the projections.

3 Study Method

To understand the SFMTA's facility needs and operational procedures, an extensive assessment of 36 of the Agency's facilities through site tours and interviews with SFMTA staff was undertaken and documents such as prior studies and land leases were reviewed. Finally, peer agencies were surveyed to determine if there were any facilities or TOD/JD practices or lessons learned that the Agency could adopt to improve their operations. SFMTA staff was involved throughout the process, participating in interviews and workshops to provide feedback and input for each deliverable. This approach is summarized in Figure 1.

FIGURE 1 – VISION REPORT APPROACH



Each of these activities is described in more detail in the following sections.

3.1 REVIEW OF EXISTING DOCUMENTS/STUDIES

The SFMTA's existing documents and studies were reviewed, including the Transit Fleet Plan, to gain a thorough understanding of the Agency's goals and policies, and to build on relevant work that was previously completed. For a full list of documents reviewed and consulted, see Appendix B.

3.2 CRITERIA DEVELOPMENT

A set of criteria was developed to identify facility solutions and TOD/JD potential (see Figure 2). These criteria were based on national expertise and SFMTA staff input. Facilities criteria were developed with the goals of maximizing the efficiency of current sites and minimizing the need for acquisition of new sites. A site was considered to have high development potential for TOD/JD if current SFMTA operations would be minimally affected by any construction activity or by relocating the function to a more appropriate site. Other considerations included existing zoning regulations, market conditions, and noise and other site-specific environmental issues.

FIGURE 2 – FACILITY AND TRANSIT-ORIENTED DEVELOPMENT/JOINT DEVELOPMENT CRITERIA

Facility Criteria	TOD/JD Criteria
• Limit new site acquisition • Minimize new construction • Maximize use of existing facilities • Ease of implementation • Flexibility • TOD/JD opportunities	• Leverage new development to replace or upgrade aging/obsolete facilities • Improve SFMTA operations and maintenance • Generate ongoing revenue by maximizing value of land • Increase use of public transit, bicycling, walking, and ridesharing • Promote a high-quality, sustainable urban lifestyle • Minimize complexity of public-private partnerships

3.3 SITE VISITS

SFMTA staff and a team of facility experts conducted on-site visits to 36 facilities, including operations, storage and maintenance centers, parking garages, and administrative offices. The purpose of these visits was to use the criteria mentioned in Figure 2 to:

- Visually evaluate building systems (structural, architectural, mechanical, electrical, plumbing)
- Observe facility conditions (including efficiency and effectiveness)
- Identify opportunities for consolidation, reconfiguration, facility improvements, and sustainability improvements
- Assess TOD/JD potential

The team of facility experts, which included national and local experts in transportation facilities and operations, architecture, sustainability, real estate development, and economics, also met with appropriate staff members to gain an understanding of current needs and determine potential solutions. More than 60 SFMTA staff members provided input throughout the process. For the complete *Site Visits and Interview Documentation* report, see Appendix C.

3.4 PEER ANALYSIS

A peer analysis was conducted to identify ideas, insights, and lessons learned by the SFMTA's peers regarding their approach to operating their facilities and generating revenues using their real estate for TOD/JD projects.

A list of 10 peers was developed who have noteworthy practices in facility management and TOD/JD, based on input from the SFMTA Executive Committee and industry experience. Out of the 10 peers, input was received from six peers, including the following:

- Los Angeles County Metropolitan Transportation Authority (LA Metro)
- Metropolitan Transit Authority of Harris County (Houston Metro)
- Massachusetts Bay Transportation Authority (MBTA)
- Denver Regional Transit District (RTD)
- TransLink of Metro Vancouver
- Dallas Area Rapid Transit (DART)

Each peer agency was administered a questionnaire that included a variety of topics related to facilities and TOD/JD projects.

For the complete *SFMTA Peer Analysis Report*, see Appendix D.

3.5 LEASE REVIEWS

As another potential revenue source, the SFMTA's current leases were reviewed. Opportunities to enhance lease revenues arise as leases expire and are eligible for renewal. The SFMTA's current retail, office, and telecommunication leases and licenses were reviewed to identify areas where financial terms could be improved and potential revenue-generating opportunities developed. Because of the confidential nature of the data and recommendations it contains, the *Leases Review and Recommendation* report is a confidential document for internal Agency use only, so it is not made available in this report; however, a list of SFMTA garages with retail leases can be found in Appendix E.

3.6 ENGAGEMENT WITH STAFF AND PUBLIC (INTERVIEWS, WORKSHOPS, DELIVERABLE REVIEWS)

A series of workshops were conducted with a cross-functional group of SFMTA staff to gain input and feedback on development criteria, the facilities assessment, facilities solutions, and the implementation plan to develop the components of this report (see Figure 3). The SFMTA Executive Committee, comprising leadership from various Agency departments, reviewed each deliverable and provided comments, which were incorporated in this Vision Report. Numerous staff interviews were also conducted throughout the project. During October 2012, SFMTA staff participated in workshops in which the Vision Report's goals, study method, proposed solutions, and implementation plan were presented to multiple SFMTA stakeholder groups. Future presentations will include other stakeholder groups such as union representatives, the San Francisco Planning and Urban Research Association (SPUR), elected officials and staff of other agencies including the Transportation Authority, and the Citizens Advisory Committee (CAC).

FIGURE 3 – WORKSHOPS

4 Operations and Maintenance Facilities Analysis and Findings

4.1 OVERVIEW

This section addresses the following facilities analyzed:

- Motor Coach
  - Kirkland
  - Woods
  - Flynn
  - Islais Creek
- Trolley Coach
  - Presidio
  - Potrero
- Light Rail Vehicle
  - Green
  - Green Annex
  - MME
- Historic Streetcar
  - Cameron Beach & Upper Yard
- Other Support Facilities
  - Rankin (Traffic Signal & Meter)
  - Bancroft (Signs & Meter)
  - Yosemite (Paint & Meter Parking)
  - Marin (Video & historic vehicle storage)
  - Burke (warehouse)
  - Scott (non-revenue vehicle maintenance)
  - Overhead
  - Bayshore (new lease for Long-Term Tow and other approved SFMTA uses)
  - 700 Pennsylvania Avenue (maintenance-of-way, facility maintenance, Transit Signal, cable car Machine Shop)
  - Enforcement Division Facilities (505 7th Street, 571 10th Street, and Department of Public Works at Cesar Chavez)

The location of each facility is shown on the Service Area Map (see Appendix F, Drawing F.0).

Note: 700 Pennsylvania Avenue was not in the original scope of work.

4.2 OBSERVATIONS AND ISSUES

Many opportunities were identified to move fleets between facilities to maximize overall efficiency and areas of underutilization that could be improved. Many facilities are already operating at or beyond maximum capacity, including Woods, Flynn, Kirkland, Cameron Beach, Presidio, and Potrero. Significant opportunities for beneficial changes exist in a number of other SFMTA-controlled facilities. A summary of key facility issues follows:

- Two facilities, **Potrero** and **Presidio**, were identified as being at the end of their useful life expectancy. These sites, along with the unreinforced masonry Overhead Lines facility on Bryant Street, would be expected to suffer significant damage during an earthquake,

impeding the City's recovery. With respect to Presidio and Potrero, both sites are barely able to handle their current fleet and have several design features that make operations inefficient. Both facilities have a stacked maintenance bay layout, which is problematic because vehicles may be blocking the path out of a bay when another vehicle needs to pull in our out. In addition, Potrero's building clearance is too low to lift vehicles for maintenance/repair purposes.

- The City's use of **Rankin** is ending in mid-2013 (due to the City Real Estate Division's planned future expansion of the San Francisco Wholesale Produce Market). The Traffic Signal Shop and Meter Shop need new locations. The Meter Shop is in the process of being relocated to the **Bancroft** facility. The Traffic Signal Shop requires approximately 67,000 square feet (indoor shops/storage and outdoor yard storage).
- The SFMTA finalized a long-term lease at **Bayshore** with a Right of First Negotiation option structured into the lease. The SFMTA plans on using this site as a Long-Term Yard for towed cars, with the remainder surplus space for other purposes, such as a relocated Video Shop (from **Marin**), the relocated Traffic Signal Shop (from **Rankin**), and the training facilities (from **Presidio and other facilities**).
- The new **Islais Creek** facility is being developed in two phases. Phase 1 is scheduled to be completed in the fall of 2012 with bus parking and fuel wash facilities. Phase 2 is in final design and will include maintenance and operations. The design is being modified to accommodate articulated buses, which will provide greater operational efficiency and flexibility. When Phase 2 is complete, the SFMTA will have the space necessary to redistribute its rubber-tired fleet to allow its other bus facilities to be modified, upgraded, or redeveloped.
- Body Repair and Paint shops are located at several different facilities: **Woods, Green, Cameron Beach, Flynn, and Potrero**. This setup is inefficient, since each facility can accommodate only a certain type of vehicle.
- **Muni Metro East** (MME) is not fully functional because it lacks the staff and necessary equipment to support several maintenance activities in-house. Several shops within the facility need to be outfitted in order to be operational, while other equipment is operational, but not being used.
- **Woods** is overcrowded and the facility needs added capacity. Not all of the bays are used for maintenance because they are being used for storage. Parts storage is inefficient because it is split between two floors and scattered in various locations throughout the site.
- There is significant potential for increased efficiency at **Burke**, the SFMTA's central storage warehouse. Currently, the site operates daily parts distribution and maintains the SFMTA's inventory levels. The warehouse also acts as an overflow storage space.

- The **Enforcement Division** is split between four sites and should be consolidated for operational efficiency.

- Figure 4 illustrates the locations of the SFMTA's facilities.

FIGURE 4 – MAP OF FACILITIES LOCATIONS

4.3 SOLUTIONS

A holistic approach was taken to developing facility solutions, addressing the facilities as a system and as individual facilities within the system. The result is a system-wide solution that:

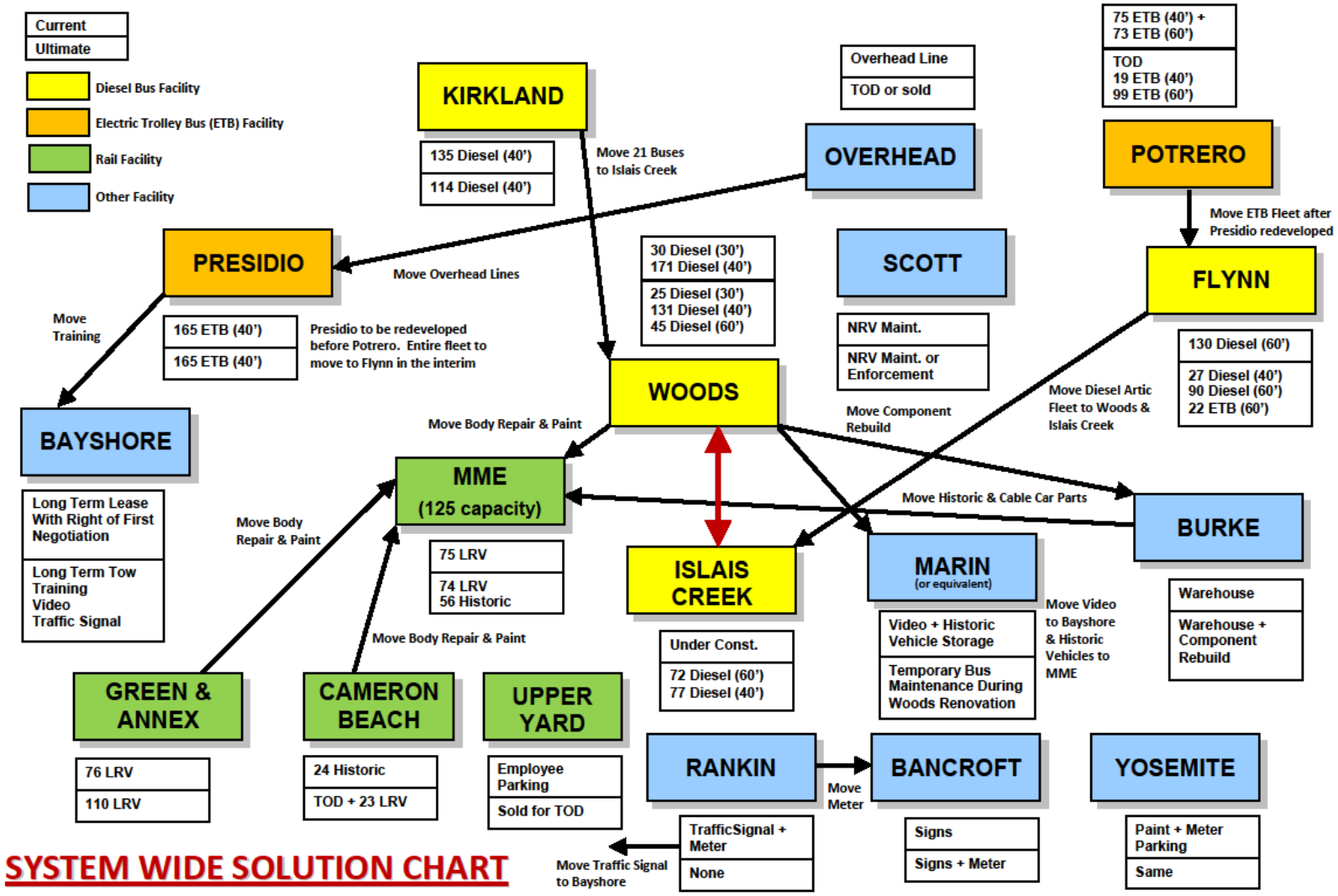
- Replaces obsolete and vulnerable facilities
- Responds to SFMTA's current 2030 fleet projections
- Improves operational flexibility
- Improves efficiency of operations

- Improves employee working conditions
- Makes the most of existing sites and facilities
- Minimizes disruption of ongoing transit operations

Figure 5 illustrates the recommended system-wide solution, which is more fully described in this section. The recommended facility solutions have been divided into two categories: independent and dependent projects. Independent projects can be completed at any time since those projects would not be operationally dependent on other projects. Dependent projects would need to be completed in sequence to allow for the sequential moves of fleet operations from one facility to another while their home facilities are rebuilt, without negatively affecting ongoing operations during construction. The project costs (including construction costs and soft costs) and implementation schedule (see Chapter 7) are based on these solutions.

For a summary of facility issues, proposed solutions, and outcomes and benefits, see Table 2 at the end of this chapter.

FIGURE 5 – SYSTEM-WIDE SOLUTIONS



4.3.1 Independent Projects

The following projects are independent and several are already in process.[4]

- **Bayshore:** The SFMTA completed a lease for a 255,420-square-foot facility on a 12.72-acre site located at 2650 Bayshore in Daly City (see Appendix F, Drawings F.47, F.48, and F.49*).* The lease has an option for a Right of First Negotiation. The initial plan is to move Long-Term Tow (impound lot) to this site from the current location at Pier 70. There will be additional space available at the facility and it is proposed that Training be moved from Presidio, the Video Shop from Marin, and the Traffic Signal Shop from Rankin. This will help vacate Presidio and make it available for redevelopment as a TOD/JD project. Relocating the Video Shop from Marin and the Traffic Signal Shop from Rankin to Bayshore in 2013 could allow Marin to be used during the Woods renovation project. Drawing F.49 shows a total of 1,465 cars for Long-Term Tow and potential locations in the facility for Training, Traffic Signals, and the Video Shop. There was some discussion that the Bayshore facility might serve as a bus operating facility in the future; however, there is insufficient space for this function with Long-Term Tow at the site, unless the towed cars are stacked in parking and occupy a smaller footprint at the site in the future. Over a 20-year period, the acquisition of Bayshore may cost between $40 million and $70 million, depending on when the option is exercised and a purchase price negotiated and accepted by the seller. The values are estimates and the actual cost is unknown at this time and will vary depending on the market and negotiated fair market value sales price.

BAYSHORE

- Newly-leased facility for Long-Term Tow, Training, and Video and Traffic Signal shops
- Optimizes use of Bayshore space while freeing up space at other facilities

- **Flynn**: The bus parking area is striped with 14-foot-wide parking lanes. This is ideal and allows wheelchair lifts to be cycled in place during the pre-trip inspection. However, because the fleet assigned to the facility has grown from 100 articulated buses to 130, buses have to be parked in the circulation lanes. This complicates bus movement and pull-out each morning. The parking lanes can be restriped to be 11 feet 6 inches wide and still fit between the existing column grid. While 11 feet 6 inches is not ideal (industry standard is 12 to 14 feet wide), this is the spacing seen at most of the other bus facilities in the SFMTA system. The narrower parking lanes will allow for 18 additional buses in the parking area

FLYNN

- Re-striping of bus parking is a short-term win with minimal costs
- Provides immediate, positive impact on operations

[4] Green call-out boxes describe project highlights; red call-out boxes describe consequences of not implementing project.

without parking in the circulation lanes. This will make the facility more efficient and provide for a safer operating environment.

- **Vehicle Lift Replacement:** All of the vehicle lifts in the system have reached, or will soon reach, their useful life. The SFMTA is in the process of replacing the vehicle lifts at each facility. Based on the experience of other multiple facility transit agencies, the SFMTA may want to consider procuring all lifts directly from the manufacturer. This will reduce the unit cost for lift equipment and standardize the lift equipment across the system. Since the vehicle lift replacement project is an ongoing funded program, it is not included in the implementation schedule or cost estimate. To minimize disruption to ongoing operations during construction, it is recommended that the lift replacement be combined with other improvement projects at each facility.

VEHICLE LIFT REPLACEMENT

- Ongoing, funded project to replace all of SFMTA's vehicle lifts
- Recommendations include procuring lifts directly from manufacturer and combining with other improvement projects at each facility, where appropriate, to minimize disruption
- Brings SFMTA's vehicle lifts to a state of good repair

- **Scott**: Convert for Enforcement. The Scott facility is used to maintain the SFMTA's non-revenue vehicles (NRVs) and has vehicle parking on the second and third levels and the roof level. Enforcement uses "Go-4s" that are maintained at Scott. Go-4 maintenance is recommended to be moved to the second level in place of 25 existing parking spaces, which equates to approximately 8,000 square feet. This would require enclosing a portion of the parking area (see Appendix F, Drawings F.50 through F.54). In addition, the ground floor should be upgraded to improve operational efficiency of NRV maintenance.

  Alternatively, NRV maintenance could be relocated to another location (possibly combined with the City's NRV maintenance operation) and the entire Scott facility could be dedicated to Enforcement with the first floor renovated for offices and crew and Go-4 maintenance and the upper floors dedicated to secure Go-4 parking.

SCOTT

- Upgrade NRV maintenance on ground floor and convert part of 2nd floor for Go-4 maintenance
- Alternatively, relocate NRV maintenance to another site (and possibly combine with the City's NRV maintenance)
- Optimizes available space at Scott and allows for potential centralization of NRV maintenance and Enforcement

- **Sustainability Projects:** Sustainability projects are independent scopes of work that the SFMTA can implement to improve the performance of its facilities and reduce its operating costs. Since the other projects in this report will lead to the reconstruction of several facilities, the sustainability projects focus on four facilities that will remain largely unaltered

through 2030: Flynn, Green, Green Annex, and Muni Metro East (MME). See Appendix G for a detailed discussion of these sustainability projects. Sustainability features will be incorporated into the design of all facilities that are being redeveloped (Presidio, Potrero, and Kirkland) or substantially renovated (Woods, Burke, Marin, and Scott) as well as new facilities (MME Paint and Body Repair facility).

4.3.2 Dependent Projects

Dependent projects have been identified in the following four groups:

1. Marin / Traffic Signal
2. MME / Cameron Beach / Green
3. Islais Creek / Burke / Woods
4. Tubbs or Alternative Site / Flynn / Presidio / Overhead / Potrero / Kirkland

A key tool used for maximizing the use of existing bus operating and maintenance sites involved in the dependent projects (specifically in groups 3 and 4) was a vehicle equivalent analysis.

The SFMTA operates buses of different lengths (30, 40, and 60 feet) and this presents a challenge to provide parking (storage), maintenance bays, and Fuel and Wash facilities that will accommodate a range of vehicles. The function that takes the most space at a facility is the parking area. A method for quickly evaluating parking capacity, which is a standard in the transit industry, is to convert number of vehicles to a vehicle equivalent to create a common denominator. Simply put, a 40-foot bus is a vehicle equivalent of 1, and a 60-foot articulated bus is a vehicle equivalent of 1.5 because it is one and a half times longer than a 40-foot bus. To simplify calculations and to provide additional flexibility, the Vision Report assumes that a 30-foot bus is also a vehicle equivalent of 1.

The Vehicle Equivalent Analysis in Appendix A shows the current vehicle equivalent capacity of each facility and the recommended vehicle equivalents to be assigned to each facility at the interim level (in 2020) and the ultimate level (in 2030).

Marin / Traffic Signal

The objective of Group 1 is to move the Traffic Signals Shop from 901 Rankin to Marin or another alternative location before the SFMTA Meter and Signal Shops and the Department of Technology (DT) vacates Rankin by mid-2013.

The projects in Group 1 include:

- Relocate the Video Shop from Marin to Bayshore
- Relocate surplus historic vehicles (only those that will be restored for service) from Marin to MME

- Renovate Marin to temporarily accommodate some bus maintenance functions while Woods is being renovated (see Appendix F, Drawings F.1 and F.2)
- Relocate Traffic Signal Shop to Bayshore, by mid-2013

  Note that the SFMTA has decided to relocate Traffic Signal to Bayshore.

Marin is a leased site and accommodates the Video Shop and surplus historic streetcars. The SFMTA pays $469,560 annually to the Port of San Francisco on a month-to-month Memorandum of Understanding (MOU). A long-term MOU cannot be negotiated, since acquisition of the site is not possible because of State Trust restrictions on the property imposed because of its proximity to a navigable waterway. The Traffic Signal Shop is located at 901 Rankin in facilities that must be vacated by mid-2013.

The Traffic Signal Shop is responsible for maintaining the signals at approximately 1,200 intersections within San Francisco. This includes maintaining and installing the signals, poles and framework, cabinets, and all related items for a safe and properly functioning system. Response time is critical to the Traffic Signal Shop. When a traffic signal is not functioning properly, it is a public safety issue that must be dealt with quickly.

The Traffic Signal Shop is located at 901 Rankin Street, a facility that is City-owned under the control of the Department of Technology. The City's Real Estate Division has requested that the SFMTA's Meter and Traffic Signal Shops be relocated by mid-2013. The Traffic Signal Shop requires indoor space for office, crew, shops, Parts Storage, and vehicle parking for specific vehicles used for quick response in the field. Outdoor space is required for storage of poles and other materials and parking for additional vehicles. Preliminary suggestions by the SFMTA were to move the Traffic Signal Shop to 1508 Bancroft Avenue. The Bancroft site, however, does not have adequate space to accommodate the interior (office, shop, storage, and truck parking) and exterior (yard equipment storage and truck parking) requirements as set forth in Appendix H. In addition, the only space available for the Traffic Signal Shop at Bancroft is located on the second floor, but a ground-floor location is required for the critical function of loading and unloading of field vehicles.

The breakdown of the major program functions for the Traffic Signal Shop (with an approximate space requirement) is as follows:

- Office and Crew Space (3,976 square feet)
- Shop Space (6,240 square feet)
- Indoor Storage Space (11,880 square feet)
- Outdoor Storage Space (32,450 square feet)
- Agency Vehicle Parking (12,600 square feet)

This is a total of 67,146 square feet (34,696 square feet of interior space and 32,450 square feet of exterior space). These space requirements were developed based on an evaluation of the functional requirements, on-site observations, and discussions with Traffic Signal Shop staff. A detailed space program is given in Appendix H.

The following alternative locations were considered as part of this study:

- **Burke Avenue Facility.** This facility does not have the exterior space required to support the Traffic Signal Shop and was given no further consideration.
- **MME.** There is insufficient space, both interior and exterior, to support the Traffic Signal Shop given the recommendations for MME outlined herein. In addition, the existing MME facility does not have adequate space that could be converted to accommodate the Traffic Signal Shop before the end of 2013. This location was given no further consideration.
- **Bayshore.** The yard space at this facility will primarily be consumed by Long-term Towed Vehicles. The SFMTA has evaluated various other solutions for relocating the Traffic Signal Shop by mid-2013. The SFMTA has decided to relocate Traffic Signal to Bayshore as shown in Appendix F, Drawing F.47. This solution was selected due to its immediate availability. Traffic Signal operations (including response time) will be monitored to determine if the Bayshore location is appropriate as a long-term solution.

The Marin facility could be modified to temporarily accommodate some bus maintenance functions while Woods is being renovated. This would first require the following:

- Relocate the Video Shop to Bayshore
- Relocate the temporary indoor storage currently at Marin
- Determine which historic vehicles at Marin can reasonably and cost effectively be restored for service
- Relocate those historic vehicles that will be restored from Marin to MME (and dispose of any remaining historic vehicles that will not be restored)
- Marin is on a month-to-month MOU with the Port at $469,560 annually ($39,130 per month). The SFMTA is exploring alternatives to Marin, due to the State Trust issues, which prevent a long-term MOU between the Port and the SFMTA. The SFMTA uses do not meet the State Trust issues, which prevent a long-term MOU between the Port and the SFMTA. The SFMTA uses do not meet the State

TRAFFIC SIGNAL SHOP

- Due to Rankin's space no longer being available to the SFMTA as of mid-2013, Traffic Signal must relocated by mid-2013
- Requires more than 67,000 square feet (including approximately 35,000 square feet of interior space)
- Bayshore keeps all related shop, storage, and truck parking areas on one site

Trust land use requirements (e.g., of commerce, fisheries, and navigation, environmental preservation and recreation). If a new short-term, five-year MOU was negotiated for the SFMTA to continue to use Marin, the Marin facility should be developed as shown in Appendix F, Drawing F.2.

The proposed Bayshore solution makes use of the existing building and keeps all related shop, storage, and truck parking areas on one site.

MME / Cameron Beach / Green

The objectives of Group 2 are to:

- Make MME fully operational
- Consolidate Body Repair and Paint Shops to MME
- Consolidate historic streetcar operations, maintenance, and storage
- Reconfigure the Cameron Beach site to accommodate future expansion of the LRV fleet
- Make the best use of the canopy structure at Cameron Beach
- Complete the re-rail project at Green

The projects in Group 2 include the following:

- Fully equip the existing shops at MME so that the facility can be fully utilized
- Complete interim track upgrades at Cameron Beach to improve safety and reliability**
- Upgrade signals (both traffic and transportation) at 4th and King to improve throughput**
- Re-rail project at Green that is already in process (see Appendix F, Drawings F.3 and F.4)

CONSEQUENCES
(related to the Green Re-Rail Project)

The consequences of not implementing the items indicated with a double asterisk (**):

- The Upper Yard would be needed to provide storage for up to 18 LRVs (See Appendix F, Drawing F.14.)
- Upper Yard TOD/JD project would need to be postponed until the re-rail project is complete

** Based on discussions with SFMTA staff, these projects are necessary to support the Green Re-rail project in lieu of using the Upper Yard for LRV storage.

- Construct new Body Repair and Paint facility to support LRV, historic streetcar, electric trolley bus (ETB), and motor coach fleet (see Appendix F, Drawings F.8, F.9, F.10, and F.11)
- Construct new canopy cover for storing historic streetcars (see Appendix F, Drawings F.7 and F.8); note that the existing canopy structure at Cameron Beach should be evaluated to determine if it could be relocated to MME in lieu of a portion of the new canopy cover
- Relocate historic streetcar fleet and its operations and maintenance to MME
- Demolish Cameron Beach maintenance and operations facility
- Revise Cameron Beach storage tracks (see Appendix F, Drawings F.12 and F.13)

Muni Metro East (MME)

The MME facility is underutilized due to the number of LRVs assigned to the facility, staffing levels, and the fact that many of the shops have not been equipped. To fully utilize the investment already made in the facility, the first step should be to fully equip the existing maintenance facility so that it can support a full fleet. After the shop is fully equipped, the historic streetcar fleet can be moved to MME to begin operations from there.

The SFMTA has an upcoming project already planned to re-rail the Green Yard. This will require several tracks to be shut down at a time and the LRVs on those tracks will need to be relocated during the re-rail. In the past, the Upper Yard has been used to store up to 18 LRVs during this work. A switch to the Upper Yard has been removed and relocated to another part of the system and the Upper Yard is used temporarily for employee parking. To avoid the need for the Upper Yard during the Green re-rail project, the maintenance staff has determined that some interim track upgrades would be needed at Cameron Beach to improve reliability and the signals (both traffic and transportation) at 4th and King would need to be upgraded to increase throughput.

Body repair and paint functions are accomplished at various facilities in the system (Woods, Green, Cameron Beach, Flynn, and Potrero). These facilities are in need of upgrading to meet current code and environmental requirements and to improve working conditions. With de-centralized Body Repair and Paint facility, the specialized staffs for these functions are spread across the system, making it difficult to properly schedule and maximize their productivity. In addition, each facility is restricted to work on certain portions of the fleet (e.g., LRVs, historic streetcars, articulated buses, standard buses, diesel coaches, ETBs). To address these issues, it is recommended that a centralized Body Repair and Paint facility be constructed on the 4 acres under the control of the SFMTA and available adjacent to the current 13-acre MME facility. The facility would include fourdrive-through, down-draft paint booths that could accommodate the entire range of vehicles in the fleet. The facility would be approximately 250 feet long with five drive-through bays for body repair, plus two additional body repair stalls. Each of the drive-through bays could accommodate up to three articulated buses or two LRVs. This configuration would provide the flexibility and capacity needed to accommodate the projected

fleet. Long-term repairs can be accommodated in middle positions without impeding access to most of the repair bays. In addition, there would be support spaces for Body Shop, Parts Storeroom, offices, break room, and crew facilities. See Appendix F for the following drawings:

- MME Existing Site Plan (F.5)
- MME Site Plan with Existing Expansion Plan (F.6)
- MME Site Plan with Proposed Interim Plan (F.7)
- MME Site Plan with Proposed Ultimate Plan (F.8)
- MME Proposed Body Repair & Paint facility Floor Plan (F.9)
- MME Proposed Body Repair & Paint facility Elevations (F.10)
- MME Proposed Body Repair & Paint facility Rendering (F.11)

MME

- Consolidating Body Repair and Paint facility functions at MME provides operational flexibility and better utilization of staff and other resources
- Provides appropriate body repair and paint facilities to support projected fleet size and mix
- Provides additional repair bay capacity at Woods, since existing body repair and paint bays can be converted
- Avoids need to upgrade existing paint booths

Note that the proposed new Body Repair and Paint facility would be located so that it can be easily accessed for outside deliveries, and it can be constructed without affecting the existing tracks or circulation at MME during construction. Also, by consolidating the Body Repair and Paint facility for all modes, space at existing facilities (particularly at Woods, see Group 3) can be repurposed for Running Repair and Inspection or Heavy Repair.

Cameron Beach

Cameron Beach is the only facility that accommodates both historic streetcar maintenance and operations, although some maintenance is done at Green Annex. The Cameron Beach facility is in a state of disrepair and is near the end of its useful life without a significant investment to upgrade the facility. The storage yard at Cameron Beach would not accommodate the projected historic streetcar fleet. In addition, many historic streetcars are stored and wrapped in tarps in the open yard at Marin. Slow-moving parts for the historic streetcar fleet are stored at Burke. Bringing all of these various elements together at one facility, in support of the projected historic streetcar fleet, would improve productivity and utilization of staff and facilities.

CAMERON BEACH

- By co-locating historic streetcar maintenance, operations, and storage functions at one site, the SFMTA can realize improved productivity
- Co-locating historic streetcar maintenance with MME's consolidated Body Repair and Paint facility will increase productivity by decreasing downtime
- Storage track upgrades at Cameron Beach will accommodate projected LRV fleet growth

It is recommended that the entire historic streetcar operation be moved to MME. With the MME maintenance facility fully equipped (as discussed previously), the mechanical maintenance of the historic fleet can be easily accommodated. Locating the historic fleet at the same facility with the centralized Body Repair and Paint facility recognizes the fact that a significant amount of ongoing work on the historic vehicles involves body repair and paint.

CAMERON BEACH CANOPY

- Canopy will continue to protect vehicles – either:
  - Remain in-place at Cameron Beach to protect a portion of the LRV fleet, or
  - Relocate the canopy cover to MME to cover a portion of the historic streetcar fleet

A portion of the storage tracks at Cameron Beach was recently covered with a canopy structure to protect historic streetcars from the elements, thus extending their life. To fully utilize this investment, the canopy could either remain in its current location and be used to protect some of the LRV fleet or it may be able to be relocated to the MME facility to provide cover for a portion of the historic streetcar fleet. Appendix F, Drawings F.7 and F.8 show the proposed location for the canopy-covered storage tracks for the historic streetcar fleet at MME. It is recommended that these storage tracks be located in the area originally identified for a Body Repair and Paint facility in the southwest corner of the site.

It is recommended that the existing maintenance and operations facility at Cameron Beach be demolished and that the storage tracks on-site be expanded and reconfigured to accommodate storage of a portion of the projected LRV fleet (See Appendix F, Drawings F.12 and F.13).

CONSEQUENCES

The consequences of not implementing Group 2 are:

- Historic streetcar operations would be split between at least two facilities since Cameron Beach cannot accommodate the projected fleet; the resulting inefficiencies would lead to higher operating cost
- Existing paint booths and body repair bays at multiple facilities would need to be upgraded to meet code requirements and expanded to accommodate the projected fleet

Islais Creek / Burke / Woods

The objectives of Group 3 are to:

- Increase flexibility and capacity to accommodate articulated buses and the projected motor coach fleet
- Improve productivity by co-locating Component Rebuild and Central Storeroom
- Improve Parts Storeroom at Woods
- Fully utilize existing facilities (Islais Creek, Burke and Woods)

The projects in Group 3 include the following:

- Complete Phase 2 (maintenance and operations facility) at Islais Creek
- Renovate Burke to improve efficiency, productivity, and utilization of existing space
- Relocate Component Rebuild from Woods to Burke
- Relocate and consolidate the existing Parts Storeroom at Woods into the location vacated by Component Rebuild
- Fully renovate Woods to extend its useful life and increase its maintenance capacity

Islais Creek

Phase 1 of the Islais Creek project is scheduled for completion in the fall of 2012. It includes bus parking and a Fuel and Wash facility that also includes a Tire Shop. Phase 2 is scheduled to start construction late in 2013 and will include a new maintenance and operations facility. The facility was originally designed to accommodate only 40-foot buses but the design is being modified to also accommodate articulated buses.

The team of facility experts reviewed the Phase 1 and Phase 2 design and suggested that the following modifications be made to enhance capacity, safety, and operating flexibility and efficiency.

Refer to the following drawings in Appendix F:

- Islais Creek Site Plan Existing Plan (F.15)
- Islais Creek Site Plan Existing – Alt 1 (F.15A)
- Islais Creek Site Plan Existing – Alt 2 (F.15B)
- Islais Creek Site Plan – Plan A (F.16)
- Islais Creek Site Plan – Plan B (F.17)
- Islais Creek Site Plan – Plan C (F.18)
- Islais Creek Site Plan – Plan B Shifted (F.19)
- Islais Creek Site Plan – Interim (F.20)
- Islais Creek Site Plan – Ultimate (F.21)
- Islais Creek / Marin Composite Site Plan (F.22)
- Islais Creek Phase 2 Ground Floor Current Design (F.23)
- Islais Creek Phase 2 Upper Level Current Design (F.24)
- Islais Creek Phase 2 Ground Floor Proposed Design – Option A (F.25)

- Islais Creek Phase 2 Ground Floor Proposed Design – Option B (F.26)
- Islais Creek Phase 2 Ground Floor Proposed Design – Recommended (F.26R)
- Islais Creek Proposed Lift Detail (F.27)

Phase 1 (Site) Recommendations:

- The capacities for bus parking, Fuel and Wash, and maintenance are not balanced as currently designed. Three fuel positions will accommodate approximately 210 buses in an eight-hour shift. The Phase 1 parking shows only 138 spaces with access to every bus in an angled parking configuration (see Drawing F.15). Phase 2 maintenance bays (16 positions shown) will accommodate about 160 forty-foot buses. Given these capacity figures, the bus parking at the Islais Creek facility needs to be increased to more fully utilize fuel, wash, and maintenance capacity.
- The existing Phase 1 parking configuration (Drawing F.15) does not accommodate articulated buses and with the 29-foot-wide circulation lanes and 12-foot-wide parking spaces, bus turning will be difficult. One remedy would be to widen the parking spaces to 14 feet, as shown in Drawing F.15A, but the capacity would be reduced to 127 buses. Another approach would be to widen the bus circulation lanes to 45 feet, as shown in Drawing F.15B and keeping the parking spaces at 12 feet wide. The capacity in this configuration is also reduced to 127 buses.
- Stacked parking (nose to tail) is the configuration used at all existing SFMTA bus facilities. The parking capacity at Islais Creek can be increased to 185 40-foot buses by going to stacked parking as shown in Drawing F.16 or 167 40-foot buses as shown in Drawing F.17 with an additional circulation lane. The maximum capacity, if the entire fleet at Islais Creek consists of articulated buses, would be 118 buses if stacked parking is used as shown in Drawing F.18.

The fleet size and mix proposed at Islais Creek in the interim is 72 articulated buses and 108 standard buses as shown in Drawing F.20. Ultimately, the proposed fleet is 72 articulated buses and 77 standard buses as shown in Drawing F.21.

Note: All parking configurations shown accommodate the current location of light poles and other obstructions like overhead roadway supports.

ISLAIS CREEK – PHASE 1

- Stack parking buses will:
  - Match design approach at other SFMTA facilities
  - Maximize the number of buses that can be parked on-site
  - Simplify bus circulation for improved safety
  - Provide more flexibility by accommodating articulated and standard buses without restriping

Phase 2 (Maintenance and Operations Building) Recommendations:

- The Phase 2 design has already gone through numerous reviews by various jurisdictions having authority over the project. To minimize the final review and approval time and expedite getting the project bid and under construction, exterior modifications should be kept to a minimum (zero if possible). See Drawings F.23 and F.24.
- The proposed location of the Phase 2 building is too close to Indiana Street, making bus turning into and out of repair bays on the east side difficult. In addition, buses turning from Indiana Street into the main entry will have to take care not to clip the corner of the building. It is recommended that the Phase 2 building be moved approximately 5 feet west to provide at least a 70-foot-wide drive to access the east repair bays as shown in Drawings F.19, F.20, F.21, and F.22.
- The configuration of the repair bays should maximize flexibility to accommodate a range of bus lengths (30, 40, and 60 feet). Drawings F.25 and F.26 show two possible configurations. Drawing F.27 shows the various configurations that could be selected for each bay. After discussions with SFMTA Maintenance, the configuration shown in Drawing F.26R was selected.
- During construction of Phase 2, access to the site will be restricted due to the location of Phase 2 building construction and the fact that the only site access points are from Indiana Street. In addition, the original concept was to use Marin for bus maintenance and operations during Phase 2 construction. The cost of upgrading Marin is not budgeted and would have to come from the Islais Creek construction budget. It is recommended that Islais Creek Phase 2 be constructed as quickly as possible and that regular bus operations at Islais Creek be postponed until Phase 2 is complete.

ISLAIS CREEK – PHASE 2

- Begin bus operations at Islais Creek only after Phase 2 is complete due to restricted site access during construction and to avoid diverting budgeted funds from Islais Creek to upgrade Marin for temporary use
- During Phase 2 construction, site can be used for down or surplus buses and other storage that could free up space at other operating facilities

Burke

Burke serves as a central warehouse for the SFMTA system that supports satellite Parts Storerooms at each facility. As shown in Appendix F, Drawing F.28, the facility is essentially split into three areas: fast-moving parts, slow-moving parts, and a third area for surplus parts and overflow or special project parts. This arrangement can be made more efficient by the following:

- Supplementing existing pallet racks with a high efficiency racking system as shown in Drawing F.29

- Moving slow-moving parts for historic streetcars to the underutilized Parts Storeroom at MME and slow-moving parts for cable cars to 700 Pennsylvania Avenue; this will free up space at Burke and move the slow-moving parts to be near the maintenance facilities that support the respective modes
- Moving surplus parts and project parts to the center section of Burke to free up space for other functions

The central warehouse gets components (major and minor) from manufacturers, vendors, and from Component Rebuild located at Woods. Parts deliveries are made from Burke to each operating facility on a fixed schedule every week. After leaving Burke, the delivery truck must stop at Woods to pick up major and minor components that are rebuilt in Component Rebuild. Many of these components are stored in an unconditioned, canopy-covered space north of the fueling lanes at Woods. To improve efficiency and provide space for specific modifications at Woods (discussed under Woods later in this section), it is recommended that Component Rebuild (both major and minor) be relocated from Woods to the area on the east end of the Burke facility. This should improve inventory control of components by bringing them under one roof and would free up much-needed space at Woods.

BURKE

- Improve efficiency and productivity (improve retrieval time) through use of high efficiency racking systems
- Improve the work and storage environment by renovating Burke
- Relocate component rebuild from Woods to simplify movement of materials between component rebuild and central storeroom and to free up space at Woods to allow its Parts Storeroom to be consolidated and its repair bays to be fully utilized

The Burke facility is an uninsulated pre-engineered metal building with poor lighting and ventilation. This creates a less then appropriate work environment that at times may become hot in the summer and cold in the winter. The facility should be upgraded with insulation, better lighting, and better ventilation and heating, which would create a better work environment and help extend the shelf life of parts and components stored in the facility.

Woods

Woods is the central diesel bus maintenance facility with Running Repair and Inspection, Major Repair, Fuel and Wash, Body Repair and Paint, Component Rebuild, Parts Storeroom, and maintenance administration offices. Appendix F has the following drawings related to the Woods facility:

WOODS

Renovating Woods will:

- Provide for maintaining articulated diesel buses, giving more flexibility for supporting the projected fleet size and mix
- Increase the number of usable repair bays from 24 current bays to 40 bays without adding on to the facility
- Extend the life of the facility and fully utilize its space efficiently to improve productivity

- Woods Site Plan Existing (F.30)
- Woods Floor Plan Existing (F.31)
- Woods Floor Plan Proposed (F.32)
- Woods Site Plan – Interim (F.33)
- Woods Site Plan – Ultimate (F.34)

Drawing F.30 shows that the site is bisected by Indiana Street, which makes security very difficult to control. Bus parking (storage), operations, and the Tire Shop are on the west side of Indiana Street and the other maintenance functions are on the east side of the street. The functions on the west side of the street are proposed to remain, however, the operations building should be upgraded and the bus parking would be reconfigured as shown in Drawings F.33 (interim) and F.34 (ultimate) to accommodate the projected fleet size and mix, including standard and articulated diesel buses.

The maintenance facility, however, does not accommodate articulated buses and several bays are used for storage rather than bus repairs as shown in Drawing F.31. As described under Group 2 projects, the body repair and paint functions at Woods will be relocated to a new consolidated Body Repair and Paint facility at MME. This will allow nine bays to be converted for use as maintenance repair bays, including bays to accommodate articulated buses.

Component Rebuild will be relocated to Burke as previously discussed. This will allow the Parts Storeroom, which is located on two floors and occupies the central portion of the facility, to be relocated into the space vacated by Component Rebuild. The configuration of the new storeroom will accommodate more storage all on one floor. This will improve retrieval time and make more efficient use of the space. In addition, the current shipping and receiving area bisects the repair bay area on the south side of the facility. Relocating the Parts Storeroom will allow the two bays taken for shipping and receiving to be converted for use as maintenance repair bays.

With the central portion of the facility vacated, this space can be repurposed for circulation and for storage of tool boxes and portable equipment. This will enable the bays used for storage to be reclaimed as maintenance repair bays. It will also enable some repair bays to be converted to accommodate articulated buses.

With all of these modifications, the number of maintenance bays will increase from 24 to 40, including bays for articulated buses as shown in Drawing F.32.

See the discussion of Group 4 projects for the value of expansion potential for Woods fleet.

CONSEQUENCES

The consequences of not implementing Group 3 are:

- Not being able to support the projected fleet growth
- Not fully utilizing investments already made at Islais Creek, Burke, and Woods

Tubbs or Alternative Site / Flynn / Presidio / Overhead / Potrero / Kirkland

The objectives of Group 4 are to:

- Provide additional flexibility and capacity to operate and maintain articulated and standard buses (diesel and electric trolley)
- Replace facilities that are at the end of their useful life with more efficient facilities that will improve productivity and survive an earthquake
- Provide a safe, reliable, permanent location for Overhead Lines

TUBBS

- Leasing a portion of the Tubbs Street facility would provide up to 12 repair bays for articulated buses to help minimize impact on maintenance during renovation of Woods
- If Tubbs is unavailable, the SFMTA should secure an alternative site
- It will allow some articulated diesel buses at Flynn to be moved, allowing Flynn to be used for ETBs

- Provide for TOD/JD projects at Presidio and Potrero
- Improve the operating conditions at Kirkland and reduce its impact on the surrounding neighborhood

The projects in Group 4 include the following:

- Acquire or lease a portion of the Tubbs Street facility or similar site to increase maintenance capacity at Woods; if the Tubbs Street facility is not available for purchase, other alternative sites can be found (including Marin)
- Convert Flynn to accommodate operations and maintenance of ETBs, in addition to diesel buses
- Construct new facilities at Presidio while providing JD opportunities there
- Construct new facilities at Potrero while providing JD opportunities there
- Reconfigure and improve Kirkland

Tubbs Street Facility or Alternative Site

The facility on the south side of Tubbs Street across from the Woods maintenance facility (see Appendix F, Drawings F.33 and F.34) is a large warehouse facility that may have space available for lease. The facility is suited for conversion to repair bays that would accommodate

standard and articulated buses. If the SFMTA can lease approximately 20,000 square feet of the facility similar to that shown in Drawing F.33, this would provide up to 12 repair bays that would allow a portion of the articulated bus fleet at Flynn to move to Woods. It would also provide repair bay space to allow the Woods facility to be renovated while minimizing disruptions of ongoing maintenance and operations. If Tubbs is unavailable, the SFMTA should pursue an alternative site. Tubbs, or an alternate site, is not absolutely necessary for the Vision Plan to work. However, the renovation of Woods would be significantly simpler and faster if some of the maintenance could be moved to Tubbs (or another site like Marin if it is not used for Traffic Signal).

CONSEQUENCES OF NOT LEASING PART OF TUBBS

- Renovation at Woods would be more complicated and thus more costly
- Alternative sites (including Marin) are under consideration in the surrounding area to mitigate the complexities associated with the Woods renovation

A longer-term alternative would be to purchase the Tubbs Street facility. This would provide additional bus maintenance space as discussed previously and provide space to possibly accommodate both SFMTA non-revenue vehicle maintenance and the City's NRV maintenance. The purchase of the Tubbs Street facility would also allow the SFMTA to consider closing Tubbs Street and Indiana Street between 22nd Street and 23rd Street. With the streets closed, the site could be easily secured with a perimeter fence and gated access points. Bus traffic during the nightly servicing cycle would no longer have to circulate on a City street to get between bus parking and Fuel and Wash. In addition to the Tubbs site the SFMTA is exploring other site options for purchase or lease to alleviate the capacity issues at Woods during and after renovation.

Flynn

Flynn is the only facility that can accommodate articulated diesel buses. It was originally designed for 100 articulated buses, and the fleet has grown to 130 articulated buses. This has required many of the buses to be parked in the circulation lanes in the evening, which complicates bus movement and pull-out each mornings (see Appendix F, Drawing F.35). As was discussed under the independent projects, the bus parking area can be restriped with 11-foot 6-inch-wide parking lanes (instead of 14-foot-wide lanes) to accommodate an additional 18 buses in the same parking area.

FLYNN

- Converting Flynn to an electric trolley bus facility will allow ETBs to be moved from Presidio and Potrero while those facilities are being redeveloped
- It will also provide flexibility in the system for maintaining the range of buses in the fleet (diesel, ETB, articulated, and standard)

Presidio and Potrero are the only two facilities that can currently accommodate ETBs. Both of these facilities are antiquated and must be replaced in order to accommodate the projected fleet, as will be discussed later in this section. These structures could suffer major damage in any significant earthquake. To replace Presidio and Potrero, the fleets at these facilities must be relocated during construction. Flynn is ideally suited to accommodate the ETBs, if overhead wire were installed to and within the facility. Overhead lines are at 17th Street, two blocks from Flynn. Overhead lines can be run from 17th Street to Flynn and throughout the bus parking and maintenance area while the current articulated diesel bus fleet continues to operate from Flynn. This work should be done concurrent with leasing a portion of the Tubbs Street (or alternative site) and construction of Islais Creek – Phase 2 so that when Islais Creek is complete, the articulated diesel fleet can be moved to Islais Creek and Woods. This will allow the ETBs (40-foot and 60-foot) at Potrero and the ETBs at Presidio to be temporarily moved to Flynn while these facilities are replaced (see Appendix F, Drawing F.36).

Once Presidio and Potrero have been redeveloped, Flynn will support the projected fleet of 112 articulated buses (including 22 ETBs and 90 diesel) and 27 standard diesel buses (see Appendix F, Drawing F.37).

Of particular note, Flynn will provide flexibility in the system for maintaining the range of buses in the fleet (diesel, ETB, articulated, and standard).

Presidio

Presidio, originally opened on August 7, 1913 as the Geary railcar barn, and it expanded north in 1949 for the electric trolley bus parking yard. Presidio has a fleet of 165 forty-foot ETBs (see Appendix F, Drawings F.38, F.39, and F.40). The facility is well beyond its useful life. The facility is ideally located to support the ETB fleet and is also a primary candidate for TOD/JD, as will be discussed in a separate section. To continue to provide the maintenance and operations support for the fleet, the facility needs to be replaced. The following sequence is proposed:

PRESIDIO

Re-developing Presidio, which is beyond its useful life, will:

- Provide a safe, reliable, permanent home for Overhead Lines
- Reduce the impact on the neighborhood
- Provide for TOD/JD above the facility on the south end of the site

- Relocate Schedules to 1 South Van Ness
- Relocate Training to Bayshore as discussed under the independent project portion of this report
- Relocate the entire ETB fleet at Presidio to Flynn once overhead lines are installed to and within Flynn

- Demolish the entire current facility at Presidio and excavate to the south, towards Geary Boulevard
- Construct a new bus maintenance facility (with adequate vertical clearance to accommodate vehicles on a lift) and overhead lines facility as shown in Appendix F, Drawings F.41 and F.42
- Develop the TOD/JD project over the top of the new bus and overhead lines facility. Sell the existing Overhead Lines facility
- When construction at Presidio is complete, return the 165 forty-foot ETB fleet to the site and relocate the overhead lines operation to Presidio

In addition to what is shown on the drawings, the north portion of the site, with bus parking (storage), could be developed with a canopy cover to block the view of the yard from the TOD/JD development.

Potrero

Potrero, which was opened in 1914 as a yard for general shops, track and pole storage, was converted in 1949 to a trolley bus yard. The 4.4-acre property is zoned Public, with 65-X height and bulk districts Potrero has a fleet of 148 electric trolley buses, including 73 articulated ETBs (see Appendix F, Drawing F.43). Note that Potrero is the only facility in the system that can accommodate articulated ETBs; however, the facility is well beyond its useful life. The facility is ideally located to support the ETB fleet and is also a primary candidate for TOD/JD, as will be discussed in a separate section. In order to continue to provide the maintenance and operations support for the fleet, the facility needs to be redeveloped. The following sequence is proposed:

POTRERO

Redeveloping Potrero, which is beyond its useful life, will:

- Bring all maintenance functions to the ground level to improve efficiency
- Improve on-site traffic flow and reduce traffic congestion on surrounding streets
- Reduce the impact on the neighborhood
- Provide for TOD/JD above the facility

- When construction at Presidio is complete, return the 165 standard ETB fleet to Presidio
- Relocate the entire ETB fleet at Potrero to Flynn
- Demolish the entire current facility at Potrero
- Construct a new bus maintenance facility (with adequate vertical clearance to accommodate vehicles on a lift) and Fuel and Wash as shown in Appendix F, Drawing F.44. This will ultimately support a fleet of 118 ETBs including 99 articulated ETBs as shown
- Develop the TOD/JD project over the top of the new bus facility
- Return the Potrero ETB fleet back to Potrero

SPECIAL NOTE

- The specific movement/assignment of buses between facilities (Flynn, Presidio, and Potrero) will depend on the total fleet size and mix at the time of relocation
- Electrifying Flynn provides the flexibility needed to accommodate a range of bus sizes and types

Kirkland

The Kirkland facility, 2.6 acres that were purchased in 1950 from the federal government, is zoned Public, with 40-X height and bulk districts. Kirkland has been subject of much debate over the years. It is located a block away from Fisherman's Wharf, a major tourist attraction, and is surrounded by residential and commercial developments. It has a fleet of 135 standard diesel buses, which is well beyond crush capacity. The site is gridlocked when all buses are back on-site and this requires buses to use the surrounding streets for making even the simplest movements (see Appendix F, Drawing F.45). While some have suggested that Kirkland be closed after Islais Creek is opened, the analysis of the proposed fleet growth and the capacity of the other facilities in the system makes it clear that Kirkland must remain operational for the future fleet. The only alternative would be to locate a new site and develop a new bus maintenance and operations facility. This would be costly and time consuming and would negatively affect the ability to implement many of the recommendations already discussed herein.

KIRKLAND

Re-developing Kirkland, which is beyond its useful life, will:

- Reduce the fleet assigned to the site, thus eliminating the need to use surrounding streets for normal on-site operations
- Provide flexibility by providing for articulated buses (including BRTs) and possibly ETBs
- Reduce impact on surrounding neighborhood with canopy-covered bus parking and circulation

Development of the site for TOD/JD is severely restricted because of the 40-X foot height and bulk district restrictions in the area.

There are, however, several things that can be done to lessen considerably the impact of Kirkland on the surrounding neighborhoods:

- Shift portion of Kirkland vehicles to Flynn to reduce the fleet assigned to Kirkland so that buses can circulate on-site rather than on surrounding streets
- Redevelop the site with new maintenance and operations facilities that will accommodate articulated, as well as standard buses
- Canopy cover the bus parking and circulation to hide these functions from view and also reduce the noise impact on the surrounding neighborhood and provide additional protection for the buses; the canopy could be designed with a green roof to further enhance the view

from above and support a public park that provides green space for the neighborhood (the North Base in Seattle is an example of a transit facility that was developed with a neighborhood park above bus parking and circulation)

Note that the facility could also be developed to accommodate ETBs in the future. This would provide additional operational flexibility.

The proposed facility would accommodate a fleet of 114 standard diesel buses and have new maintenance, operations, and Fuel and Wash facilities as shown in Appendix F, Drawing F.46.

Redevelopment of Kirkland would happen after the other facilities in Group 4 had been developed. Buses at Kirkland would be relocated to Flynn during construction.

CONSEQUENCES

The consequences of not implementing Group 4 are:

- Ever increasing possibility of catastrophic failure of oldest facilities (Presidio and Potrero) in the system, which would have a direct impact on SFMTA's ability to provide necessary transit service
- Not realizing benefit of TOD/JD projects at Presidio and Potrero

4.3.3 Signal Shop Consolidation

In addition to the Traffic Signal Shop, the SFMTA has a Transportation Signal Shop that is responsible for maintaining the signals along the LRV tracks. This shop requires crew meeting space, a relatively small shop area with four workstations, and a tool crib/parts storage area. These functions have been accommodated in a second-floor space at 700 Pennsylvania Avenue; however, they are in the process of being relocated into available space on the mezzanine level of MME. While the Transportation Signal and Traffic Signal Shops could be co-located, there is no significant advantage to bringing these two functions together. It is recommended that the Transportation Signal Shop remain at MME and the Traffic Signal Shop be relocated to Bayshore as outlined previously.

4.3.4 Enforcement Division

The Enforcement Division ensures compliance with parking and traffic regulations by managing street cleaning, parking violations, and coordinating traffic for City-wide events. In the future, there is a preference to consolidate two facilities (505 7th Street and 571 10th Street) with nearby parking for the Go-4 fleet. Since the facility at Cesar Chavez works closely with the Department of Public Works, the intention is to keep them at their current location. The current spaces that do not work for the division include the conference room/emergency command/training, director's shared offices, workstations, and storage. The Enforcement Division is adding 36

more Parking Control Officers (PCOs) beginning in early 2013 and they will need more space (which is already tight at 505 7th Street).

There are several criteria that must be taken into consideration when looking for a new site to consolidate the Enforcement Division:

- Short-term parking for a small number of Go-4 vehicles at facility location
- Easy access to Go-4 vehicle parking lot
- Feasibility for on-site parking/swap system with Go-4 vehicle parking
- Centrally located City facility and close to public transportation for employee commute and easy accessibility to the neighborhood shifts
- Easy access to freeway access and parking
- Proximity/easy access to 1 South Van Ness

Scott has been identified as an ideal location for the consolidation of the Enforcement Division.

4.3.5 Paratransit Vans and Taxis

The SFMTA also wishes to find parking for 87 SFMTA-owned Paratransit vans. The van heights range from 109" to 115" (9.08' to 9.58') and are too high to fit into any of the SFMTA's off-street parking garages. The vans are currently parked and maintained at various contractors' sites in San Francisco and Brisbane. Office space for administration and dispatching is also needed. To date, this is still an open issue for the SFMTA and the Paratransit contractors.

Taxi-related facilities are not included in Vision Report, because they are the responsibility of private parties, not the SFMTA.

TABLE 2 – HIGHLIGHTS OF FACILITIES' FINDINGS

Facility and Current Functions	Issues	Proposed Solutions	Outcomes/Benefits
700 Pennsylvania ▪ Building and ground offices and dispatch ▪ Carpentry, Electrical, Paint, and Special Machine Shops ▪ Landscaping office ▪ Transit Signal Shop for rail and subway signals (in process of moving to MME)	▪ Existing Machine Shop is extensive and supports only cable cars ▪ MOW has Carpentry Shop at 700 Penn and cable car has a separate Carpentry Shop adjacent to Woods, two blocks away ▪ Transit Signal is moving to MME and Traffic Signal must leave Rankin.	▪ Consider centralizing Machine Shop functions for rail and cable car at 700 Pennsylvania ▪ Consider combining Carpentry Shops to 700 Pennsylvania	▪ More cost effective use of resources (staff, equipment, space) ▪ Need to evaluate impact on down time and Parts Storage due to consolidating Machine Shop functions
Bancroft ▪ Sign Shop ▪ Dedicated office space	▪ Identified as candidate for Traffic Signal Shop ▪ Availability of space for Agency vehicle parking and open yard storage	▪ House Meter Shop and Sign Shop ▪ Traffic Signal Shop is not appropriate for Bancroft due to lack of space for Agency vehicle parking and open yard storage	▪ Meter Shop and Sign Shop is adequately accommodated in a permanent location ▪ The SFMTA will move the Traffic Signal Shop from Rankin to Bayshore by mid-2013
Bayshore ▪ Long-term lease was negotiated, with the option of first negotiation rights should the site be offered for sale	▪ Determine what functions need to be located here (Training, Video, bus operations and maintenance, Traffic Signal)	▪ Long-Term Yard for towed cars ▪ Relocate Training from Presidio ▪ Relocate Video Shop from Marin ▪ Possibly relocate Traffic Signal Shop from Rankin	▪ Allows Long-Term Yard for towed vehicles to vacate existing location at Pier 70 as mandated ▪ Training, Video and Traffic Signal Shops utilize available space ▪ Relocating Training from Presidio accommodates TOD/JD at Presidio ▪ Relocating Video Shop from Marin accommodates use of Marin during Woods renovations ▪ There is insufficient remaining space at Bayshore to accommodate a bus operations and maintenance facility, unless the towed cars operation, using stacked technology, can occupy a smaller footprint at the property; other proposed SFMTA uses may be accommodated in the remaining 11,000 square feet on the mezzanine
Burke ▪ Central storage warehouse for all ops and maintenance facilities ▪ Daily parts distribution service ▪ Maintains SFMTA's inventory levels ▪ Provides overflow storage space	▪ Improve efficiency in warehouse ▪ Lighting is poor ▪ The building is an uninsulated metal building ▪ Component Rebuild at Woods supplies central warehouse, but large components are kept in unconditioned, canopy-covered space at Woods ▪ Very slow-moving parts for historic vehicles and cable cars take up valuable floor space	▪ Renovate the east end to accommodate Component Rebuild ▪ Upgrade storage systems for greater utilization of existing space ▪ Move historic and cable car parts to MME and/or 700 Pennsylvania ▪ Insulate walls and roof ▪ Improve lighting	▪ Component Rebuild supplies the warehouse and co-locating these functions simplifies movement of materials and delivery to other facilities ▪ Use of high efficiency rack system increases storage capacity in the same space and reduces retrieval time ▪ Historic and cable car parts are extremely slow moving and can be moved to the underutilized MME warehouse or 700 Penn (with cable car Machine Shop) ▪ Insulation and better lighting improve the work environment for improved productivity
Cameron Beach ▪ Maintenance and operations for historic streetcars ▪ Body Repair Shop for historic streetcars and LRVs ▪ Paint Shop for historic and LRVs	▪ Overcrowded ▪ Circulation issue between historic vehicles and LRVs ▪ Facility is beyond its useful life ▪ The site will not support the projected historic streetcar fleet	▪ TOD/JD at Upper Yard ▪ Modify track 13 to resolve circulation issue ▪ Move historic streetcar fleet and its maintenance and operations to MME ▪ Demolish existing maintenance and operations building and rebuild yard for storing 24 LRVs and providing LRV turn around loop at grade ▪ Either reuse existing canopy cover in place to protect LRVs or relocate canopy cover to MME to cover portion of historic streetcar fleet	▪ Upper Yard has provided back-up LRV storage tracks (18 LRVs) for Green in the past. The proposed configuration will give more flexibility and open the Upper Yard for TOD/JD ▪ Track modifications will improve safety and reliability ▪ Moving historic streetcars to MME fully utilizes MME and eliminates the need to renovate Cameron Beach maintenance facility ▪ Fully utilize investment already made in canopy cover structure

TABLE 2 – HIGHLIGHTS OF FACILITIES' FINDINGS (CONTINUED)

Facility and Current Functions	Issues	Proposed Solutions	Outcomes/Benefits
Flynn ▪ Operating maintenance, Fuel and Wash, operations for articulated diesel bus fleet ▪ Light body repair	▪ Currently only SFMTA facility that can handle articulated diesel buses ▪ Will not accommodate ETBs ▪ Originally designed for 100 articulated diesel buses and now accommodates 130 articulated diesel buses at crush capacity	▪ Install overhead wire to accommodate ETB fleet (including running overhead wire to the facility from 17th Street ▪ Restripe bus storage to increase parking capacity by 18 articulated buses ▪ Move articulated diesel fleet to Islais Creek and Woods while Presidio and Potrero are redeveloped ▪ Ultimately use for diesel and electric buses	▪ Increase flexibility by providing additional facility that can accommodate ETBs (including articulated ETBs) ▪ Restriping bus storage narrows each bus lane to 11'-6", similar to other SFMTA facilities and eliminates bus parking in circulation lanes that complicates traffic flow and morning pull-out ▪ Relocating articulated diesel buses and electrifying Flynn allows Presidio and Potrero to be vacated (one at a time) while being reconstructed; this simplifies operations
Green & Annex ▪ Maintenance and wash, operations for LRV fleet ▪ Heavy duty repairs for historic rail fleet	▪ Body Repair and Paint is inadequately sized to properly accommodate LRV fleet ▪ Parts and component storage is spread throughout the facility (not centralized in Parts Storeroom) ▪ Large backlog due to constant demand for electronic repairs	▪ Move Body Repair and Paint facility to new facility at MME ▪ Increase efficiency of rail bays by relocating items stored in bays ▪ Rearrange layout of Electronic Shop for more efficient use ▪ Review possibility of outsourcing some functions (like motor rebuilds)	▪ Consolidating Body Repair and Paint facility will improve through put, quality control, and staff utilization ▪ Centrally locating parts and component storage will improve inventory control and free up repair bays for repair functions ▪ Outsourcing may be appropriate due to staff availability, training requirements, and availability of warranties
Islais Creek ▪ Phase 1 (bus parking and fuel/wash) is under construction ▪ Phase 2 (operations and maintenance facility) is in final design	▪ Phase 1 construction is scheduled to be complete by Fall, 2012 ▪ Phase 2 building design does not accommodate articulated buses ▪ Location of Phase 2 building will impede bus turning into the site from Indiana Street and makes access to repair bays on east side difficult ▪ The Phase 2 building is in final design and has been approved by several agencies/groups having jurisdiction. Any building envelop changes could further delay bidding and construction of Phase 2 ▪ Site access is restricted during construction of Phase 2 ▪ Twenty new 60-foot long BRT vehicles (similar size to articulated buses) will be delivered in 2016	▪ Modify repair bay interior configuration to accommodate articulated buses without changing exterior envelope ▪ Shift Phase 2 building 5 feet to the west to accommodate bus turns from Indiana Street and provide at least 70-foot wide circulation for access to east repair bays ▪ Modify chassis wash bay to accommodate articulated buses ▪ Minimize redesign to maintain (or accelerate) bid schedule ▪ Eliminate striping in bus parking area in Phase 1 and stripe bus parking area in Phase 2 to maximize parking capacity ▪ Do not move operating fleet to the site until Phase 2 is complete, due to restricted access. The Phase 1 bus parking area can be used for storage of long-term down buses or reserve fleet ▪ Complete Phase 2 by the end of 2015	▪ Repair bay modifications to accommodate articulated buses will provide greater operational flexibility ▪ Shifting building provides for safer operation and minimizes on-site body damage ▪ Longer chassis wash allows for properly washing standard and articulated buses ▪ Getting Phase 2 built as soon as possible (e.g., avoiding delay) will allow other facilities in the SFMTA system to be improved while minimizing impacts to ongoing operations ▪ Maximizing bus parking capacity will balance with Fuel and Wash capacity and maintenance capacity, thus assuring full utilization of investment ▪ Using Phase 1 bus parking area for long-term down buses or reserve fleet during construction of Phase 2 could reduce congestion at other bus facilities ▪ Not operating buses from this site until completion of Phase 2 eliminates need for interim maintenance and operations facility (originally thought to be needed on Marin site), thus saving funds for use on the permanent facilities ▪ Completing Phase 2 by the end of 2015 will allow the new BRT vehicles to be accommodated at Islais Creek or Flynn

TABLE 2 – HIGHLIGHTS OF FACILITIES' FINDINGS (CONTINUED)

Facility and Current Functions	Issues	Proposed Solutions	Outcomes/Benefits
Kirkland ▪ Light Maintenance, Fuel and Wash, and operations for standard diesel bus fleet	▪ Center lane of maintenance area has to be used at night to pull buses through to parking from fuel lanes ▪ When yard is full, buses must circulate out into surrounding streets to turn around ▪ Maintenance capacity is limited to inspection and light running repair (only three repair bays for 135 buses) ▪ Site is in prime area near Fisherman's Wharf and viewed from residences on Nob Hill	▪ Redevelop site to accommodate smaller fleet with full service maintenance ▪ Relocate Fuel and Wash for better traffic flow ▪ Possibly provide for articulated buses (parking and maintenance) and for use of ETBs on-site ▪ Possibly cover bus parking and circulation with canopy with green roof and solar panels	▪ Smaller fleet on-site will eliminate need to use surrounding streets for normal on-site operations; this will also improve safety and security ▪ Full service maintenance on-site will eliminate the need to provide some maintenance from the Woods facility, thus reducing operating cost ▪ Aligning Fuel and Wash will provide a safer, more efficient traffic flow ▪ Providing for articulated buses and possibly ETB's will increase operational flexibility ▪ Covering bus parking and circulation and installing solar panels will dramatically reduce the visual and audible impact on the surrounding neighborhood and help provide solar power to the facility
Marin ▪ Storage for old/unused vehicles ▪ Multiple overflow storage areas ▪ Houses SFMTA Video Shop	▪ Video Shop needs a permanent location; operating out of temporary facilities ▪ Site owned by the City and under jurisdiction of the Port; long-term use of site for non-maritime use not allowed ▪ Current MOU is month-to-month at $469,560 annually ▪ Historic streetcars are uncovered and deteriorating in the yard storage area	▪ Move Video Shop to Bayshore ▪ Move historic vehicles to MME ▪ Negotiate a short-term, five-year MOU with the Port ▪ Renovate facility to temporarily accommodate some bus maintenance functions while Woods is being renovated	▪ Moving Video Shop to Bayshore more fully utilizes Bayshore and vacates Marin, making space for Traffic Signal Shop to move there or to an alternative location ▪ Moving historic vehicles to MME consolidates all historic streetcars at one facility and frees up Marin yard for Traffic Signal yard storage ▪ Moving the Traffic Signal Shop to Bayshore and vacating Rankin in mid-2013 as required will allow Marin to be used during the Woods renovations. Accommodating some bus maintenance functions during renovation of Woods would simplify construction; note that this was done when the Fuel and Wash facilities at Woods were renovated several years ago
MME ▪ Operating maintenance, wash, and operations for LRV fleet	▪ Not fully functional; lacks staff and necessary equipment to support several maintenance activities in-house ▪ The maintenance facility has additional capacity that is not utilized (even if it was fully equipped and staffed) ▪ Original site design provides for a Body Repair and Paint facility to accommodate the LRVs assigned to the facility ▪ The site has an additional 4+ acres available for expansion (originally intended for more storage tracks) ▪ Body Repair and Paint functions are located at several facilities in the system	▪ Consolidate Body Repair and Paint facility functions for bus (including ETBs), LRV, and historic streetcar at one facility at MME (from Green, Green Annex, Cameron Beach, Woods, Flynn, and Potrero) ▪ Possibly relocate recently constructed canopy structure from Cameron Beach ▪ Construct new canopy structure for storing current and projected historic streetcar fleet ▪ Fully equip existing shop areas ▪ Move historic streetcar and slow-moving cable car parts from Burke	▪ Consolidating Body Repair and Paint facility across modes provides operational flexibility and better utilization of staff and other resources ▪ A new Body Repair and Paint facility eliminates the need to upgrade existing body repair bays and paint booths at other facilities ▪ Relocating all historic streetcar operations (with new canopy-covered storage tracks) will accommodate projected fleet growth. Also, co-locating with consolidated Body Repair and Paint facility recognizes the fact that historic streetcars require significant amount of body repair and paint work ▪ Fully equipping existing facilities allows full utilization of facilities as originally planned ▪ Relocating slow-moving parts to MME allows existing Parts Storeroom to be more fully utilized and parts to be convenient to historic streetcars
Overhead Lines. 1401 Bryant Street ▪ Overhead Lines crew facilities, shops, Parts Storage, and line truck parking ▪ Power Control Center is in the back (newer) building	▪ Facility does not meet current seismic code requirements ▪ Must be located near overhead lines to enhance response time ▪ Existing Power Control Center is relatively new and will support the projected system	▪ Relocate Overhead Lines facility to Presidio after it is redeveloped	▪ Relocating to new facilities would meet seismic requirements, thus improving safety ▪ Presidio is centrally located to the overhead power system, so response time could be improved

TABLE 2 – HIGHLIGHTS OF FACILITIES' FINDINGS (CONTINUED)

Facility and Current Functions	Issues	Proposed Solutions	Outcomes/Benefits
Potrero ▪ Maintenance and operations for standard and articulated ETB fleet ▪ Light body repair	▪ Facility is at end of its useful life expectancy ▪ Fleet parking is located on two levels ▪ Maintenance functions are located on two levels with Tire Shop and Body Repair on the second level ▪ Bus maintenance and parking on two levels requires buses to use surrounding streets for functions that should be accommodated entirely on-site ▪ The bus storage area is so tight that buses queue up on surrounding streets, thus increasing traffic congestion ▪ Inefficiencies: building clearance too low to lift vehicles; building designed for stacked maintenance bay layout	▪ TOD/JD development on upper levels ▪ Demolish existing facility and rebuild with 150 standard electric trolley (or diesel) bus equivalent facility at grade ▪ Move ETB fleet to Flynn while Potrero is rebuilt ▪ Develop bus parking with Fuel and Wash for efficient, on-site traffic flow ▪ Develop new maintenance facility with adequate vertical clearance in repair bays and direct access to each repair bay	▪ Reducing size of fleet will reduce traffic congestion on-site and eliminate queuing on surrounding streets ▪ Moving entire fleet to Flynn during reconstruction will minimize operating disruption during construction ▪ Efficient on-site traffic flow will minimize on-site operating cost ▪ Properly designed and equipped maintenance will improve productivity, thus minimizing operating cost
Presidio ▪ Maintenance and operations of standard ETB fleet ▪ Light body repair ▪ Operations training ▪ SFMTA Reprographics ▪ Employee Assistance Program (EAP) and Schedules	▪ Facility is at end of useful life expectancy ▪ Stacked maintenance bay layout inefficient ▪ Facility on Geary Boulevard level is under-utilized (was originally SFMTA headquarters)	▪ Move Schedules to 1 SVN and Training to Bayshore ▪ Move ETBs to Flynn or Potrero on interim basis during construction ▪ Demolish and rebuild facility with 165 standard ETB facility and overhead lines facility at grade ▪ TOD/JD development on southern portion of site ▪ Possibly cover bus parking and circulation with canopy with green roof and solar panels	▪ Moving entire fleet to Flynn or Potrero during reconstruction will minimize operating disruption during construction ▪ Properly designed and equipped maintenance will improve productivity, thus minimizing operating cost ▪ Locating Overhead Lines here will minimize response time ▪ Covering bus parking and circulation and installing solar panels will dramatically reduce the visual and audible impact on the surrounding neighborhood and the TOD/JD project and help provide solar power to the facility
Rankin ▪ Traffic Signal Shop (including training, apparatus fabrication and repair, and signal programming) ▪ Meter Shop (moving to Bancroft)	▪ SFMTA Shops and DT must vacate in mid-2013 ▪ Traffic Signal Shop and Meter Shop need permanent locations	▪ Move Traffic Signal Shop to Marin or equivalent alternative site elsewhere ▪ Move Meter Shop to Bancroft	▪ Meter Shop is already in the process of being moved to Bancroft ▪ Relocating Traffic Signal Shop to Marin or equivalent alternative location will help minimize response time and keep all related shop, storage, and truck parking areas on one site (that was not possible at other sites considered) ▪ In order to move the Traffic Signal Shop by mid-2013, SFMTA must begin design of facility negotiations and modifications as soon as possible
Scott ▪ Maintenance facility for all non-revenue vehicles	▪ Not enough repair bays to accommodate SFMTA non-revenue fleet ▪ Determine if there is potential room for consolidation of SFMTA and City non-revenue fleet ▪ Parking space on upper levels is underutilized	▪ Claim portion of second level parking garage area for conversion into scooter/cart ("Go-4") repair facility ▪ Renovate ground floor to provide additional repair bay space and improve access to Parts Storeroom ▪ Alternate: Relocate NRV maintenance and convert the first floor for Enforcement offices and utilize parking facility for Go-4 parking as well as maintenance	▪ More efficient use of existing space. Go-4 maintenance takes valuable space on the first floor that could be used for maintenance bays for cars and trucks ▪ Alternate would improve productivity and efficiency of Enforcement; current facility has no expansion capability, so relocation of the NRV maintenance function should be considered to free up the first floor that could be renovated to accommodate Enforcement and centralize all Enforcement functions including office, crew space, Go-4 maintenance, and Go-4 parking ▪ Alternate would require identifying a new facility for NRV maintenance; this may also include consideration of consolidating NRV maintenance for all City departments

TABLE 2 – HIGHLIGHTS OF FACILITIES' FINDINGS (CONTINUED)

Facility and Current Functions	Issues	Proposed Solutions	Outcomes/Benefits
Woods ▪ Storage, maintenance, and operations for standard diesel bus fleet ▪ Maintenance facility includes Paint and Body Repair, Component Rebuild, Running Repair/Inspection, Heavy Repair, Fuel and Wash, and Parts Storage	▪ Overcrowding of buses (facility needs more capacity) ▪ Not all are repair bays are operational because they are being used for storage ▪ Parts Storage is divided between two floors and a covered area near fueling	▪ Move Component Rebuild to Burke to make more room for parts and equipment storage ▪ Move Body Repair and Paint facility to MME and use vacated bays as repair bays ▪ Relocate entire Parts Storeroom to area vacated by Component Rebuild; renovate facility to increase repair capacity from 24 bays to 40 bays, without expanding the facility footprint ▪ Renovate Fuel and Wash as necessary to accommodate articulated buses	▪ See Burke for discussion on moving Component Rebuild ▪ See MME for discussion on consolidated Body Repair and Paint facility ▪ Relocating Body Repair and Paint facility will increase maintenance capacity by nine bays without adding to the building area ▪ Relocating the Parts Storeroom and utilizing the vacated space for equipment storage and circulation will increase maintenance capacity by seven bays without adding to the building area ▪ Facility renovation will allow designated repair bays to accommodate articulated buses thus providing greater operational flexibility
Yosemite ▪ Majority of space is occupied by Paint Shop ▪ Available space used for Agency vehicle parking for shops at Bancroft	▪ Leased facility that may be considered for Traffic Signal Shop	▪ Too small to house Traffic Signal Shop ▪ Continue to use current space which is dedicated to and fully utilized by Paint Shop and Vehicle Parking	▪ Existing functions at Yosemite complement functions at Bancroft located two blocks away ▪ Traffic Signal Shop must have all functions (shops, storage, vehicle parking) located on one site so as not to negatively impact response time; Yosemite does not have required yard storage space ▪ Consider exercising the option to purchase a portion of Yosemite, per the Lease terms (or the entire building, if available)
Tubbs Street Facility ▪ Currently no SFMTA functions	▪ Across the street from Woods maintenance facility ▪ Woods maintenance needs additional capacity, particularly during renovation of the facility ▪ Lack of security at Woods due to City streets (Indiana Street and Tubbs Street) bisecting the site	▪ Lease approximately 20,000 square feet for 12 repair bays that accommodate articulated diesel buses plus support space, if available in the future ▪ Improve lease space for proposed functions identified above ▪ Consider purchasing the entire Tubbs Street facility for various uses if made available for sale ▪ If acquired, close Indiana Street between 22nd and 23rd Streets and close Tubbs Street	▪ A lease would immediately increase overall maintenance capacity and provide for articulated buses during renovation of the Woods facility ▪ If the facility were purchased, the facility could be permanently converted for bus maintenance (12+ repair bays for articulated buses) and other functions such as NRV maintenance (possibly incorporating maintenance for City vehicles) ▪ Closing the streets noted would allow the Woods facility and Tubbs facility to be incorporated into one secure site

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5 Revenue Generators

The following sections describe the potential for the SFMTA's parking garages, leases, and sites identified for TOD/JD potential that may generate revenue for the Agency. For each of these items, this section includes an overview, analysis, and description of revenue-generating potential.

5.1 TRANSIT-ORIENTED DEVELOPMENT AND JOINT DEVELOPMENT OPPORTUNITIES

5.1.1 Overview

Major development opportunities were identified at three locations—Presidio South, Potrero, and the Upper Yard—with additional potential at the Chinatown and Yerba Buena/Moscone Central Subway Stations. The range of sale values is estimated at between $25.5 – $50.0 million. Ground lease revenues could range from $2.04 – $4.0 million per year.

During the facilities site visits, the SFMTA identified three priority sites that could be developed for revenue-generating opportunity: Presidio South, Upper Yard, and Potrero. As part of the project scope, the Chinatown Central Subway Station and Yerba Buena/Moscone Central Subway Station were also evaluated for TOD opportunities. The SFMTA has acquired a parcel at Stockton and Washington Streets to accommodate the Chinatown Central Subway Station and hopes to acquire a site to accommodate the Yerba Buena/Moscone Station at Folsom and Fourth Streets. However, these accommodations do not require the use of the full parcels and there are opportunities to develop the remaining portions for private TOD. The Chinatown and Yerba Buena/Moscone Central Subway Stations are planned to open in 2018 or early 2019.

For the full *Evaluation of TOD/JD Potential* report, please see Appendix I. For the full *Central Subway Transit-Oriented Development Potential* report, please see Appendix J.

5.1.2 Observations and Issues

Presidio. Presidio is a 5.75-acre site located in the Laurel Heights neighborhood of San Francisco. The southern portion of the site is bounded by Geary Boulevard, a major east-west thoroughfare for which a BRT line is being planned. The northern portion of the site is being used as an outdoor layover facility for approximately 165 ETBs. The southern portion of the site has an aging and obsolete maintenance facility that is in need of replacement.

The SFMTA's facilities at Presidio are functionally obsolete and in need of replacement. The administration building has large amounts of vacant space and the few uses it houses are scheduled to be moved to other locations. The maintenance and operations facility is also at the end of its useful life expectancy and should be demolished. Thus, the existing facilities need to

be rebuilt whether or not private development occurs at Presidio. During construction, Presidio operations would be temporarily moved to Flynn.

Upper Yard. Upper Yard is located at the corner of Geneva Street and San Jose Avenue, straddling the Excelsior and Ingleside districts. The site is approximately 0.7 acres and is adjacent to a BART-owned parcel that is 1.0 acre. The BART parcel is used as the entrance plaza to the underground BART station and as its "kiss-and-ride" area. The surrounding area of the site is primarily residential, although there are also commercial, educational, and public uses present. The SFMTA's site has historically been used as a layover yard for the SFMTA's light rail vehicles, but is currently used only temporarily for SFMTA employee parking. The Agency has determined that this site is no longer needed for SFMTA operations and therefore, could be declared as surplus land.

The primary limiting factor of the Upper Yard is its narrow shape. To increase the site's utility, it is recommended that the SFMTA and BART parcels be combined to develop a single housing project. This is consistent with the City's vision articulated in the *2009 Balboa Park Station Area Plan.*

Potrero. Potrero Yard is a 4.4-acre site used as an ETB yard and maintenance facility. Located on the eastern edge of Mission District, the site is also within proximity to Potrero Hill, Showplace Square, and SoMa. The current land use of the surrounding area is a mix of production/distribution/repair (PDR) residential live/work, and urban mixed use (UMU) commercial. The Potrero facility is at the end of its useful life expectancy and needs to be rebuilt. Existing transit functions would have to be temporarily relocated to Flynn before construction commences. Using the air rights over a rebuilt Potrero facility would offer significant JD opportunities.

The site falls under the City's *Eastern Neighborhoods Plan*, which sets forth a long-term planning framework for future development of the Mission, Showplace Square/Potrero Hill, Central Waterfront, and east SoMa areas. The plans promote the preservation of industrially zoned land in the City, the preservation and enhancement of the employment base, and the expansion of affordable housing opportunities for a wide range of household incomes. The goals of the *Eastern Neighborhoods Plan* were consulted in formulating the concept plan for JD of the site.

Chinatown Station. The Chinatown Central Subway Station is located at Stockton and Washington Streets in the heart of Chinatown. The surrounding area is characterized by a dense mix of housing, retail, and commercial uses, predominantly in mixed-use and historic buildings. The site would be ideal for ground-floor retail space since there is a high volume of existing pedestrian traffic.

The site has tight and irregular development parameters since it is located atop the subway station. There are only 13,000 square feet of gross building area that can be developed, and this will result in both construction and operational inefficiencies. Nonetheless, it is believed that a small-scale TOD opportunity would be a valuable addition to this high-traffic and centrally located part of Chinatown.

Yerba Buena/Moscone Station. The Yerba Buena/Moscone Central Subway Station site is located at 4th and Folsom streets, in proximity to Moscone Center, Yerba Buena, and Downtown. The site is surrounded by a range of uses, including residential, office, commercial retail, convention center, and light industrial.

The development parcel would allow for a floor-plate size of only about 7,800 square feet and the foundation would allow for a 10-story light-steel-frame structure above it, yielding a total of 78,000 square feet. The small floor-plate size would not be ideal for a traditional office building. Residential use could be an option, but the inability to provide on-site parking because of the size and underground subway station would affect the site's value for residential use. Given the unique nature of the development opportunity, the potential land value of the Yerba Buena/Moscone Station site has not been estimated.

5.1.3 Revenue-Generating Opportunities

Presidio. The best use of Presidio South would be residential use to achieve the highest return and produce housing to meet the high demand for rental apartments in the City. SFMTA operations could occupy the subsurface level of the development. The SFMTA may wish to define the Agency's needs at the yard and invite bidders for Presidio to offer bids for a later phase to the north, which would undergo review simultaneously.

The JD of the site would require a rezoning in any event since the site is zoned as P (Public). The estimated order-of-magnitude land value for planning purposes is between $20 million and $40 million ($1.6 million to $3.2 million per year on ground lease/air rights lease basis). Discussions with neighborhood leaders and organizations, other City Departments, and elected officials should be held to determine appropriate development.

Upper Yard. The preliminary concept plan for Upper Yard consists of two midrise buildings up to 85 feet in height along Geneva Avenue, and a lower-rise building in the balance of the project. This is consistent with the City's vision in the *2009 Balboa Park Station Area Plan*. The concept plan would yield approximately 150 apartment units, with an average size of about 775 square feet. The ground floor would be occupied by retail uses, supportive of the high pedestrian traffic generated by the BART station. The development would need to take into account the current functions of the BART site (the entrance plaza and kiss-and-ride area). The SFMTA Board has approved a motion to explore sale of this parcel to the Mayor's Office of Housing for affordable housing.

The SFMTA team has met with BART staff to discuss on a preliminary basis, options for incorporating BART's ongoing needs into the new housing project. In the concept plan, the BART Kiss & Ride area would be moved from its current location to San Jose Avenue; BART patrons would walk along Geneva Avenue and turn the corner onto San Jose Avenue to enter the area. Further study is needed to determine whether this configuration would be an effective solution for BART patrons. To avoid structural conflicts with the BART tunnel underground, the concept plan also assumes that the development would be set back 40 feet from the BART tunnel. The estimated order-of-magnitude land value for planning purposes in the Vision Report was estimated to be between $4.5 million and $9 million ($360,000 to $720,000 million on a ground lease/air rights lease basis). Using a different approach to valuation, the appraised land value is between $5.29 million for the SFMTA's 0.7-acre parcel and $6.15 million if aggregated with the BART's one-acre parcel ($423,200 to $492,000 per year on a ground lease/air rights lease basis).

One issue that would need to be addressed at a future time is the method for allocating land value between the SFMTA and BART parcels. There are different allocation alternatives that can be considered including pro rata based on land square feet, pro rata based on the potential number of units on each parcel, or pro rata based on the potential building area on each parcel. Such an allocation can also take into account the "net developable area" of each parcel since a portion of the BART parcel is not developable because of the station entrance plaza and because of the underground BART tunnel.

Potrero. The best use of the Potrero site is for a campus-type development targeted to large tech/research and development (R&D) users. Discussions with neighborhood leaders and organizations, other City Departments, and elected officials should be held to determine appropriate development.

The preliminary concept plan consists of the replacement yard and maintenance facility on the lower level of the project with the private development built above. This development would consist of three stories along 17th Street, stepping up to five stories along Mariposa Street. The buildings would be no higher than 65 feet tall, measured from average street grade, at all locations consistent with current restrictions. The layout would have desirable large floor plates that foster collaboration and allow for flexibility and a large multifunctional central courtyard space.

Chinatown Station. The likely highest and best use for the site is ground-floor retail with additional retail and restaurant use, commercial office or senior residential on the upper floors. There has been interest from local stakeholders and community members to develop the site for community use, such as a park or community center. It is recognized that these types of community uses, which would be valuable additions to the neighborhood would likely require some level of government or non-profit financial support both in capital and ongoing operating and maintenance costs.

For initial planning purposes, it is estimated that the sale of the development rights at the Chinatown Station site could yield up to $1 million for the SFMTA. A ground lease could generate up to $80,000 per year.

Yerba Buena/Moscone Station. The site is within the area of the Central Corridor Study being undertaken by Planning Department. The eventual allowable uses, heights, and massing are unknown at this time. Without those in place, it is difficult to accurately estimate land value.

Overhead Lines Facility (1401 Bryant Street). Once the Overhead Lines operational uses have been relocated to Presidio, this 43,000-square-foot unreinforced masonry building will be surplus to the SFMTA's needs and should be disposed of. It is a challenging site; it abuts an overhead freeway, it needs an estimated $18-$22 million in seismic rehabilitation, and it is a historic resource.

Disposition schedule: The real estate market for high-rise housing at Presidio South is robust and is likely to remain so. The market for a technology campus at Potrero may be at its peak. The SFMTA might consider inviting simultaneous proposals for these sites and selecting the initial disposition in response to market demand. Should the SFMTA proceed with Potrero first rather than Presidio South, the sequencing of the "Shuffle" of functions can be easily adjusted.

5.2 PARKING GARAGES

5.2.1 Overview

An analysis of parking garages under the control of the SFMTA was also conducted to identify development potential and assess their ability to meet SFMTA objectives: clean air, fuel vehicle support, climate adaptation, and sustainability, and other policy and regulatory goals and requirements. As part of the site visits, opportunities and constraints regarding garage operations and contexts were observed. Garages were evaluated based on their site context, expansion history, user type, existing utilization, and in some cases, future vision. Those garages considered as candidates for JD are second-tier opportunities, as further described in *Appendix C, Site Visits and Interviews Documentation*.

The SFMTA administers 20 parking garages, providing 14,456 stalls. Out of these 20 garages, 10 were selected for evaluation. Information regarding the number of spaces, number of levels, daily utilization, and development potential are detailed in Figure 6.

FIGURE 6 – PARKING GARAGE EVALUATION

Users	Specific Daily Users		Commercial Office Users	Retail Users			Neighborhood Users		Special Event Users	
Garage	SF General Hospital	Japan Center (CPMC)	Golden Gateway (Chinatown)	Fifth & Mission	Sutter & Stockton	Ellis & O'Farrell	Polk & Bush	Lombard	Performing Arts	Moscone
# Spaces	817	745/175	1,096	2,585	1,865	950	131	205	600	752
# Levels	6	2/1	3	8	12	10	7	4	6	7
Daily Utilization										
Development Potential	None	None	None	Possible	None	None	None	Possible	Possible	Possible

The four garages selected for further evaluation are Fifth and Mission, Lombard Street, Performing Arts, and the Moscone Center. These garages are located in areas of high development demand and are generally underperforming as parking resources. Nonetheless, these are secondary opportunities and would require sensitive responses to the season or performance-related demands.

5.2.2 Observations and Issues

Garages were identified as having development potential because of their low utilization and/or location. At their greatest capacities, these four garages are 50 to 60 percent occupied. Below is a summary of the garages:

- The Fifth and Mission garage, the SFMTA's largest garage, is located near Powell Street Station and many downtown neighborhoods and attractions. The garage has full occupancy during 20 days out of the year, with an average utilization of 55 percent. The garage is mostly used by shoppers and theater goers. Customers from nearby hotels also use the garage, as well as convention parkers.
- The Moscone Center garage is located in the Yerba Buena Gardens district and is used mostly by neighborhood office workers and convention goers. The surrounding uses include offices, hotels, and multifamily residential. On average, the garage is 50 to 60 percent occupied.
- The Performing Arts garage is located near many other surface parking lots and street parking. The garage is primarily used by theater goers, but is also used by neighborhood office workers. During the day, the garage is 10 to 20 percent occupied, and at night the garage is 50 to 100 percent occupied.
- The Lombard Street garage is surrounded by multifamily residential and neighborhood commercial development. The garage is used by shoppers, neighborhood office workers,

and neighborhood residents. The garage is 50 to 60 percent occupied and rarely at full capacity.

Each garage also has features that could affect overall development options:

- The Fifth and Mission garage is surrounded by street infrastructure that is already nearing capacity and adding additional parking may require alteration in lane capacities to and from the garage. The location of the garage is considered a significant asset by adjacent businesses and organizations, thus constraining potential development options. Portions of the site may be considered as part of the Moscone Center expansion project. For this site as well as the nearby Moscone Center garage, the Planning Department should consider offering Transfer of Development Rights (TDR) sale opportunities.
- The Moscone Center garage is restricted by the close proximity of towers on the adjacent parcels and the limited footprint of the site. Nonetheless, this site may be proposed as part of new development, which would advance the expansion of the Moscone Center and may be quite valuable.
- The Performing Arts garage is located in a transitional area between the Civic Center, Theater District, and Hayes Valley neighborhoods. Future development must meet City of San Francisco planning and zoning controls and establish the site as part of the urban transition between neighborhoods of differing scale and use. Disruption to parking supply may also impact theater patronage.
- The Lombard Street garage is significantly larger than the more intimate scale of the surrounding development. The parking garage may also be viewed as an asset to the neighborhood in providing alternate to on-street parking. Any development should seek to describe a clear and concise set of urban design guidelines that enhance the qualities of the neighborhood.

While this study did not evaluate the 20 parking lots for possible TOD/JD opportunities, the SFMTA could pursue a Request for Qualifications (RFQ) or Request for Proposals (RFP) for development at these sites.

5.2.3 Revenue-Generating Opportunities

Opportunities exist to increase utilization of the SFMTA's current parking garages. The demand-responsive pricing introduced at 14 SFpark garages has resulted in a significant decrease in overall average hourly rates, which has coincided with higher utilization, especially by short-term visitors to the neighborhood commercial districts. The SFMTA could increase utilization at the remaining SFMTA-managed garages by utilizing the same strategies employed at SFpark garages:

- Demand-responsive pricing
- Installing clear wayfinding signage on streets nearby
- Increasing the profile of garages through better signage and marketing
- Encouraging press coverage

Another broad strategy would be to upgrade the paint and signage in all SFMTA lots and garages according to the specifications develop by the SFpark team; Moscone Center garage is a prototype of this strategy.

The agency should avoid efforts to draw in all-day commuter parkers by easing early bird time restrictions, introducing new discounted rates for long-term or all-day parking, or lowering early bird rates, since all-day commuter parkers contribute to traffic congestion and prevent turnover and optimal utilization of garage spaces. As discussed in the TOD/JD section, underutilized garages could be redesigned or reprogrammed to include additional retail or other non-parking forms of development, or could be considered for complete redevelopment.

Opportunities to make these garages more sustainable to realize cost savings include installing bi-level lighting with motion sensors for energy savings and installing photovoltaic cells to offset the cost of power. The SFMTA has completed a test of bi-level lighting and is beginning a test of LED lighting at the Civic Center garage.

The Fifth and Mission, and Moscone Center garages are included in the study area for a Request for Proposal for the Moscone Convention Center Facilities Expansion, which was issued by the San Francisco Tourism Improvement District Management Corporation. The 25-year master plan is intended to improve connectivity and access within the Moscone Center campus, and there are opportunities for development for both garages in order to better integrate them into the campus. The Moscone Center garage has been identified for potential tunnel connections under Third Street and for replacement with convention and hotel facilities. Disposition of the Moscone Center garage and/or portions of the 5th and Mission garage toward the Moscone Expansion project could result in significant revenues to the SFMTA. In addition, the possibility of creating TDRs should be explored with the Planning Department.

As discussed in the TOD/JD section, underutilized surface parking lots could be redesigned and reprogrammed to include retail and/or other non-parking forms of development, or could be considered for complete redevelopment. Agency staff recommends that analyzing the development potential of select surface parking lots should be managed in a separate effort that, if advanced to a program that involves external review, would not delay or distract from the high-priority objectives of the more complex sites identified in the "highest potential" categories of the Vision Report.

5.3 LEASE ANALYSIS

5.3.1 Overview

The analysis of SFMTA retail, office, and telecommunication leases is a companion study to the garage analysis. This portion focuses on determining whether the Agency could enhance revenues from retail tenants in SFMTA garages, enhance revenues from telecommunication leases in which the SFMTA is the landlord, and realize cost savings from office leases in which the SFMTA is the tenant.

5.3.2 Observations and Issues

Retail Leases. Thirteen of the SFMTA's parking garages contain approximately 93,000 square feet of retail space. At the writing of this report, the SFMTA directly oversees eight of the garages with approximately 16 leases and 4 vacant retail spaces; the garages are operating at about a 90 percent occupancy rate. All but one space (U.S. Postal Service at Lombard Street) is leased to private retail and service retail tenants. Additionally, three non-profit corporations (Uptown Parking Corporation [UPC], Ellis-O'Farrell Parking Corporation [EOPC] and Downtown Parking Corporation [DPC]) currently manage approximately 25 additional retail leases (approximately 66,000 square feet) in four garages. Effective January 1, 2013, the DPC and EOPC retail leases (13 retail leases with approximately 38,000 square feet) will be assumed and managed by the SFMTA.

The SFMTA's retail tenants have rents that vary between below current market rents and above current market, which is attributable to the fact that many of the leases were entered into a number of years ago under different market conditions than today and because contractual annual rent adjustments in the leases do not necessarily reflect retail market conditions. Renegotiation of leases to reflect market rates is underway.

Office Leases. The SFMTA rents about 320,000 square feet of office space from the City and County of San Francisco (CCSF) and private owners. The vast majority of space is leased in buildings owned by the CCSF, mostly at 1 South Van Ness, while the remainder of the space is leased from private owners. Current rents are, on average, at or below market rate, compared to office rents in the vicinity of these buildings.

Telecommunication Leases. There are 10 active macrocell leases/licenses on six separate SFMTA parking facilities and lots, although one of these macrocell site leases is a replacement lease for another of the 10. A macrocell is a cell in a mobile phone network that provides radio coverage served by a high power cellular base station. Antennas for macrocells are usually mounted on existing structures such as rooftops. The SFMTA has successfully negotiated a new license agreement with AT&T in November, 2012, allowing AT&T the opportunity to install its cellular outdoor distributed antenna systems on SFMTA's poles.

5.3.3 Revenue-Generating Opportunities

The full lease recommendations are outlined in the *Leases Review and Recommendations* document, which was prepared only for internal use by the SFMTA. The following is an excerpt from the full recommendations that were identified to improve lease terms:

- Retail
  - Set aside dedicated funding for retail tenant improvements allowance and other capital improvements, to be funded annually through a percentage of retail lease revenues
  - Streamline SFMTA internal review to prevent delays and prospective tenants from pulling out of lease negotiations; approval authority for leases should be better centralized, SFMTA and City Real Estate Department should provide early input into lease negotiations, and a master term sheet should be developed and provided to brokers and garage management; conforming leases could be automatically approved
  - Encourage increased use of professional retail brokers since brokers provide access to expertise that may result in expanded retail tenant options, more favorable lease terms, and increased revenues for the SFMTA in the long run; professional retail brokers currently handle 20 of 30 leases
  - Explore further use of participation rent

    (Note: the SFMTA is currently implementing the retail recommendations as necessary)
- Office
  - Since the Agency's current office leases are, on average, at or below market rate, the SFMTA would benefit by retaining the office leases it holds

6 Funding and Implementation Plan

This section summarizes the project schedule, costs, potential revenue streams to fund the Vision projects, and short-term and long-term implementation activities. These are described in more detail in the following sections. Feedback and input from staff were received, and a number of the recommendations are already in the process of being implemented.

6.1 SUMMARY OF PROJECT COSTS

6.1.1 Capital Costs

As shown in Table 4, the total capital costs associated with the facility improvements described in the earlier section are $320 million (in 2012 dollars and industry standards).

Five of the facilities are estimated to cost over $30 million because they require some amount of demolition and reconstruction. The six facilities that fall in the $10 to $20 million range require renovations and new maintenance equipment, while the four facilities that cost under $10 million require minor building improvements. All of the cost estimates include sustainability improvements. The cost estimates are based on industry standards, and are applied on a unit or square-foot basis where possible, with an appropriate contingency to account for San Francisco conditions. As individual projects proceed, estimates should be updated as additional information becomes available.

Facility costs must be updated as the design of each facility progresses:

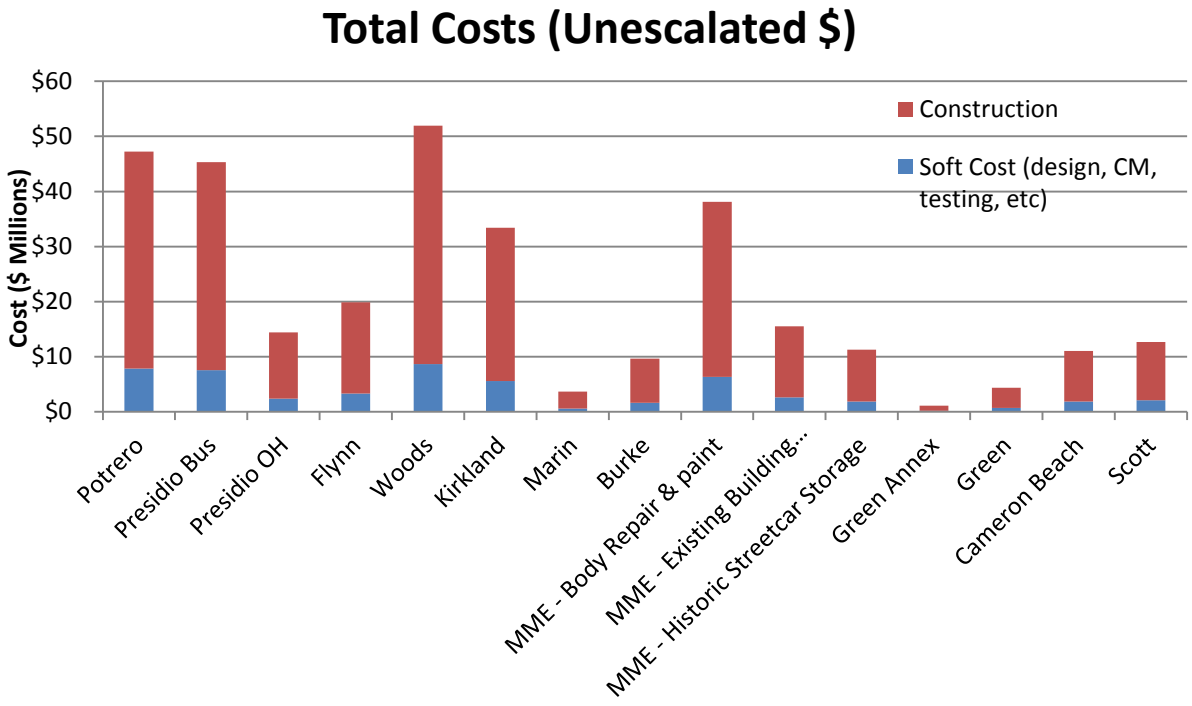
- Develop detailed design criteria to be standardized across the system
- Develop the conceptual design (site and floor plans) for each facility
- Update the facility cost estimates based on the design criteria and conceptual designs

TABLE 3 – SUMMARY OF FACILITY COSTS (2012 $)

SFMTA Facility	Capital Costs (2012 $, Millions)
Woods	$51,938
Potrero	$47,237
Presidio Bus	$45,320
MME – Body Repair & paint	$38,117
Kirkland	$33,390
Flynn	$19,866
MME – Existing Building Upgrades	$15,541
Presidio OH	$14,437
Scott	$12,648
MME – Historic Streetcar Storage	$11,287
Cameron Beach	$11,048
Burke	$9,666
Green	$4,348
Marin	$3,656
Green Annex	$1,094
Total	**$319,591**

These costs include the soft costs (including planning, design, construction management, surveying, and testing) and hard (construction) costs. Figure 7 shows how the total facility costs are allocated between soft costs ($53.3 million) and hard costs ($266.3 million).

FIGURE 7 – SUMMARY OF FACILITY COSTS (2012 $)



6.1.2 Operations and Maintenance (O&M) Costs

While this Vision Report is intended to make the SFMTA's operations and maintenance activities more cost effective, there will likely be an increase in O&M costs during this 18-year implementation timeframe. The increased costs will be partially due to transferring O&M to new permanent or temporary locations while facilities are constructed/renovated. Some of the temporary locations may be slightly farther than their current bases (relative to their service area), so the SFMTA may experience a small increase in deadhead cost during construction/renovation as well. Nonetheless, the mid- to long-term implementation of the report's recommendation may result in O&M cost savings.

6.1.3 Costing Methodology

The capital costs of the facility solutions identified in this report were derived from industry standards and rough order-of-magnitude unit costs based on the construction cost of similar transit maintenance and operations facilities.

The detailed breakdown of costs for each facility, including unit costs and contingency, are shown in Appendix K. The costs were broken down into the following categories:

- Site work (demolition, site utilities, paving, and excavation)
- Off-site work (overhead lines installation to Flynn)
- Track and Overhead (track demolition, track installation, overhead demolition, and overhead installation)
- Maintenance Equipment (major equipment items like vehicle lifts, paint booths, vehicle exhaust systems, bus washers, fueling positions, lubrication system, compressed air system, and high density pallet stacking system are itemized and an additional $25 per square foot is shown for miscellaneous shop equipment)
- Demolition (interior and building)
- Renovation (office/support, Parts Storeroom, maintenance space, and building envelop and miscellaneous repairs)
- Sustainability projects (as outlined in Appendix G)
- New construction (office/support, Parts Storeroom, Fuel and Wash, maintenance space, vehicle canopies with green roof, and vehicle canopies without green roof)

The following assumptions were used when estimating the facility costs:

- The site and facility layouts shown in Appendix F were used to determine quantities
- Annual inflation factor: 3%
- Location factor[5]: 35% (to adjust for bay area construction cost)
- Design contingency: 15% (typical for estimates based on conceptual level drawings)
- Construction contingency: 15%
- Soft costs: 20% of construction costs
- Soft costs were distributed evenly across the design and construction period
- Cost not included for hazardous material removal or TOD/JD construction cost
- Costs not included for San Francisco standards, (e.g., LEED)

Note that the design contingency will be reduced as the design of each project progresses.

[5] Location factor reflects increased costs due to the complicated nature of San Francisco's procurement and contracting processes.

6.2 PROJECT SCHEDULE AND ANNUAL COSTS

6.2.1 Prioritization Approach

Solutions were prioritized based on the following criteria:

- Physical needs of the facility
- Accommodating projected fleet size and mix
- Minimizing impact to ongoing operations
- Project dependencies (as outlined in Section 4.3)
- Potential funding availability (as outlined in Section 6.3)
- Maximizing SFMTA revenue potential (e.g., TOD/JD projects)

While the projects are presented individually, the development of the implementation schedule assumes that the SFMTA will adopt them as a comprehensive program that will occur in the 2013 – 2030 timeframe. The schedule was developed to identify projects that will build momentum and set the stage for coordinated implementation over the ensuing years. It recognizes that the funding for projects in the first several years may need to come from existing funds that could be reallocated to these projects, so the costs are spread over time in a way that will allow the SFMTA to secure adequate funding for all projects.

6.2.2 Implementation Schedule

A high-level project implementation schedule (see Figure 8) reflects the criteria outlined in the previous section. This schedule typically breaks down each project into planning/environmental, design, and construction. The implementation schedule shows planning/environmental design work for some projects happening concurrent with construction on some related projects so that construction work can start as quickly as possible. As implementation moves forward, the SFMTA will need to develop a more detailed schedule. For a breakdown of annual costs by facility, see Appendix K.

The SFMTA has already begun implementation of several Vision Report projects including:

- Leasing and making improvements to the Bayshore facility to accommodate long term tow for Auto Return and for other SFMTA uses
- Restriping the bus parking area at Flynn to accommodate more buses in the bus parking area and minimize the number of buses stored in the circulation lanes
- Replacing vehicle lifts at the Woods facility, as the first step in a system-wide vehicle lift replacement program
- Fully equipping MME so that it can be fully utilized
- Moving historic streetcars from Cameron Beach to MME to relieve congestion at Cameron Beach and more fully utilize the new space at MME
- Completing the design of Phase 2 for Islais Creek to accommodate articulated buses
- Relocating Meter Shop from Rankin to Bancroft
- Relocating the Traffic Signal Shop to Bayshore
- The SFMTA Board approved Resolution 12-137 to explore sale of the Upper Yard

FIGURE 8 – IMPLEMENTATION SCHEDULE OF VISION PROJECTS

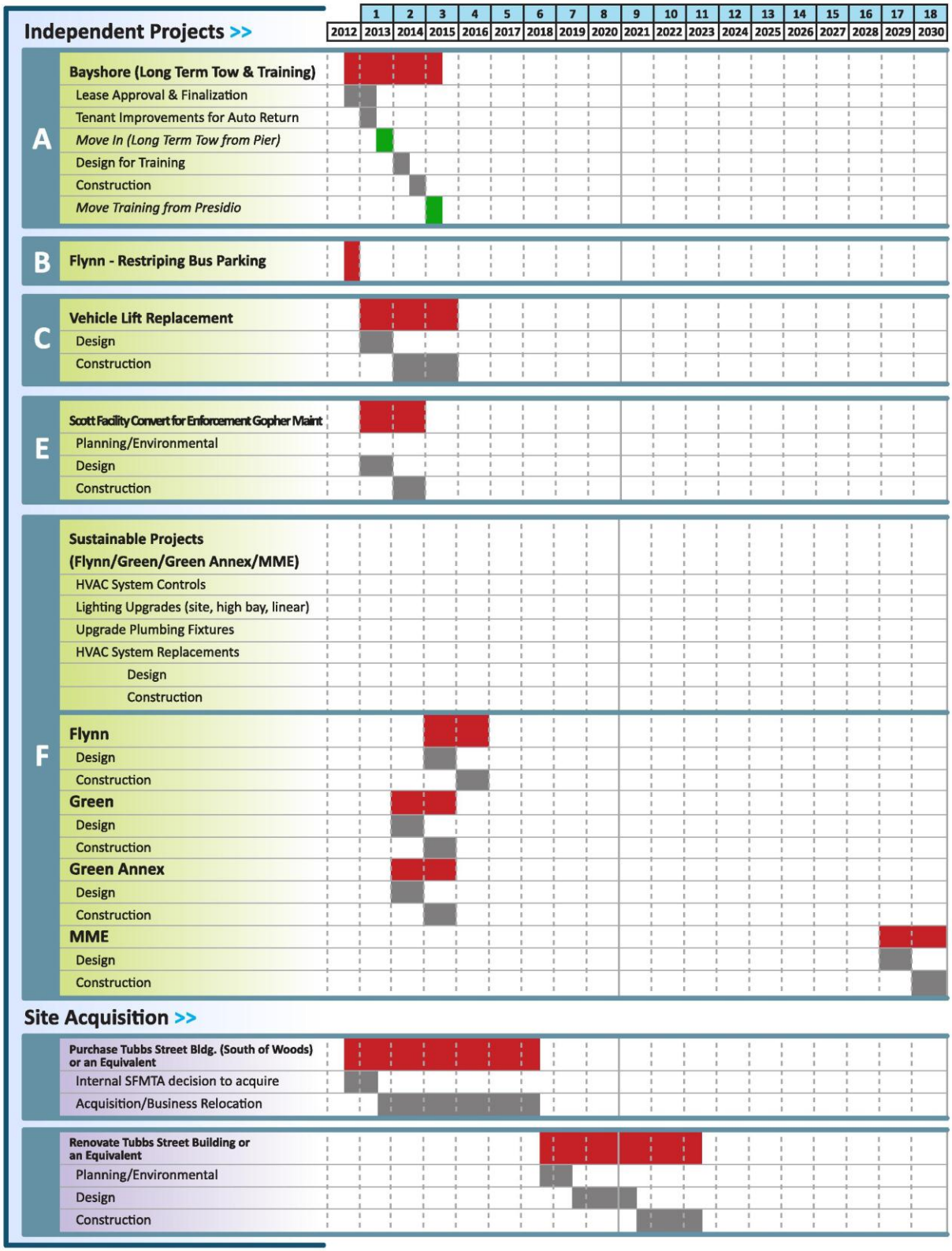


FIGURE 8 – IMPLEMENTATION SCHEDULE OF VISION PROJECTS (CONTINUED)

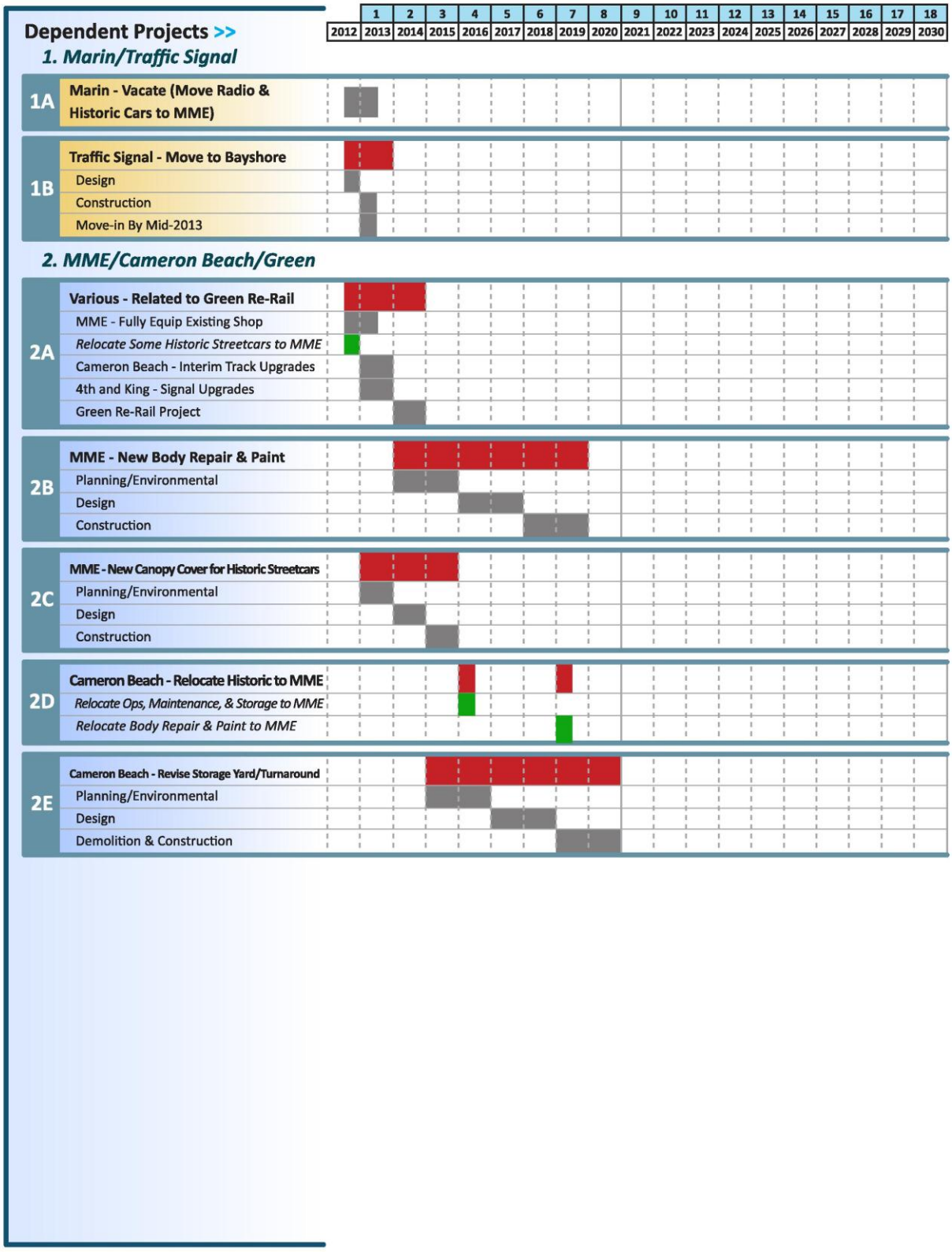


FIGURE 8 – IMPLEMENTATION SCHEDULE OF VISION PROJECTS (CONTINUED)

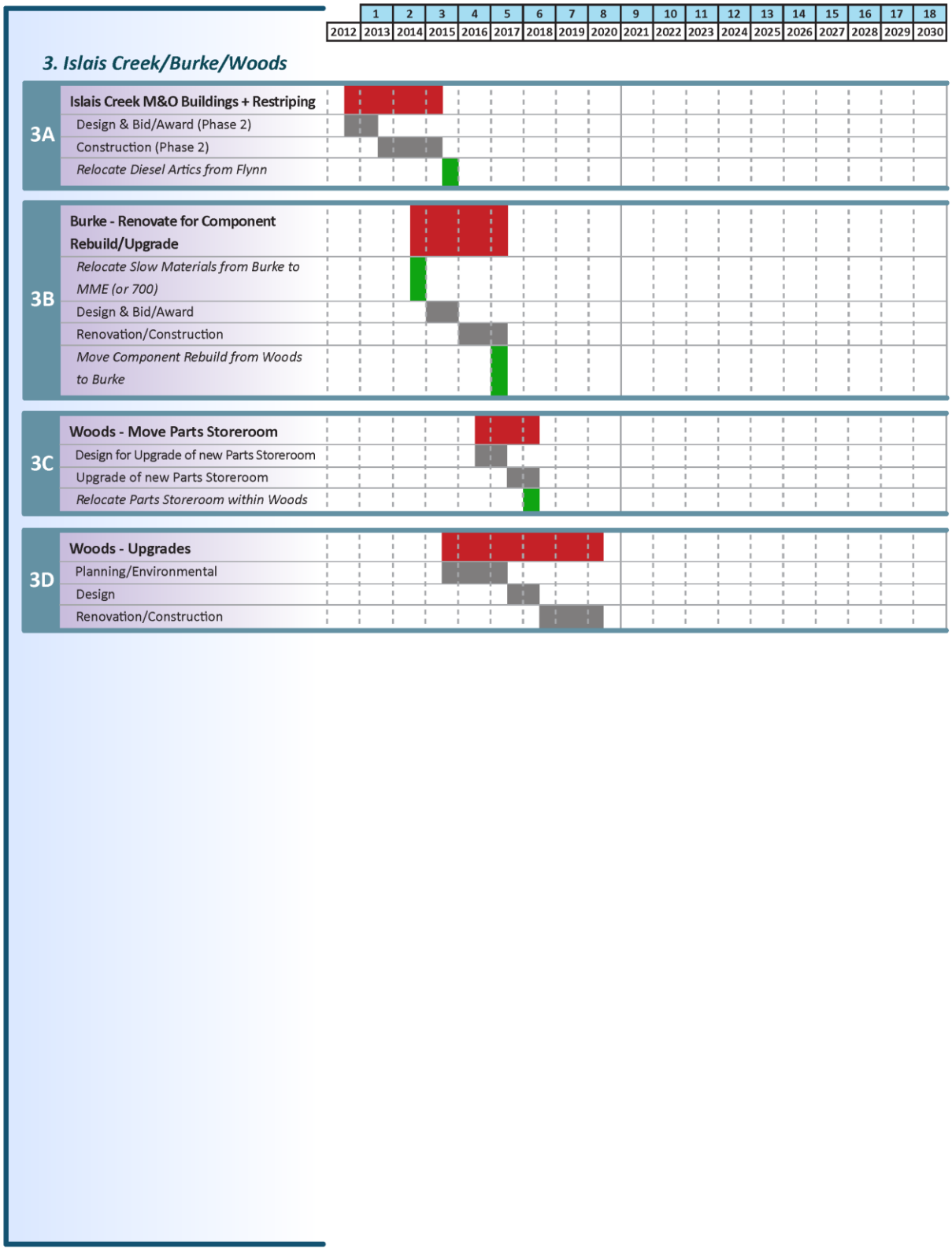
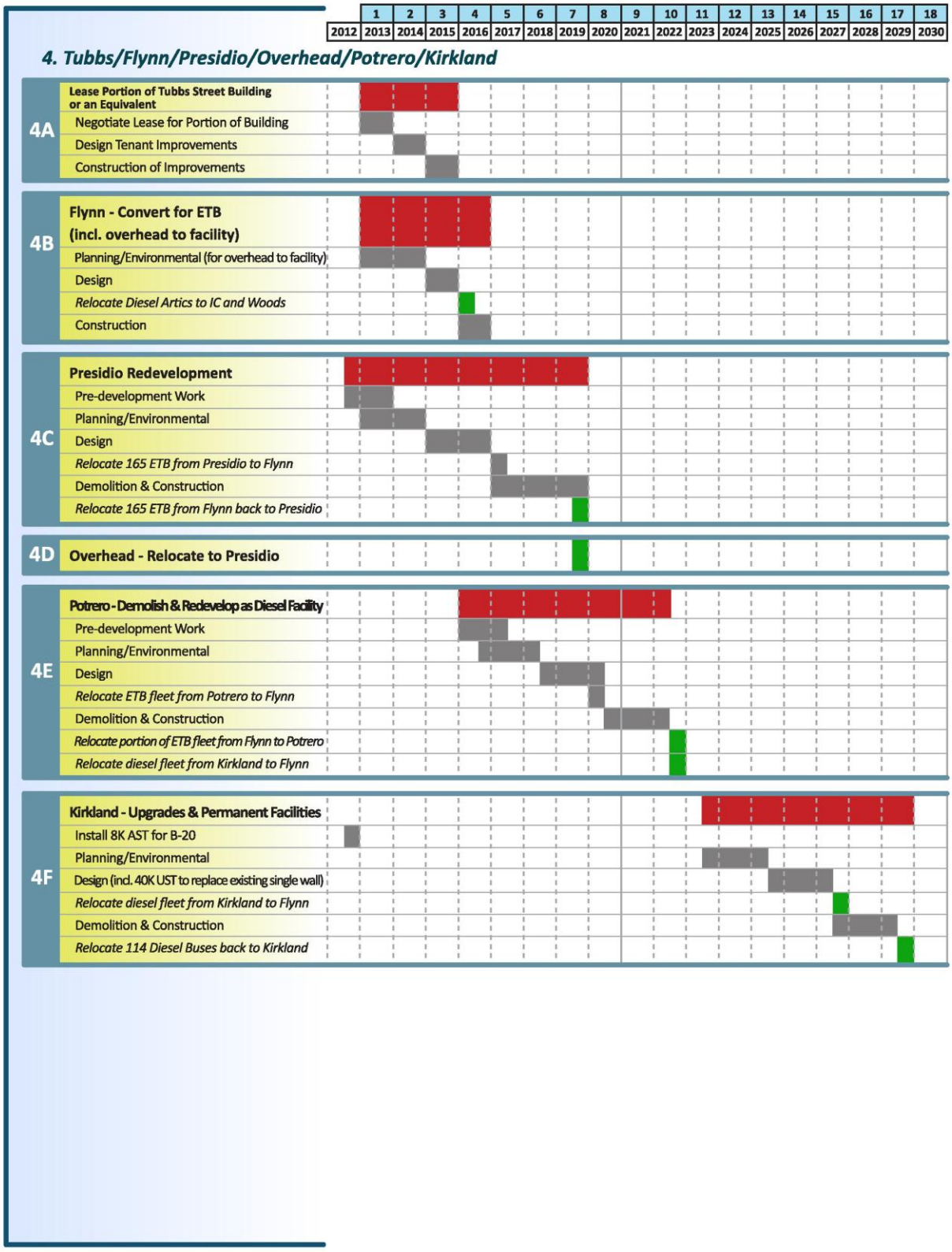


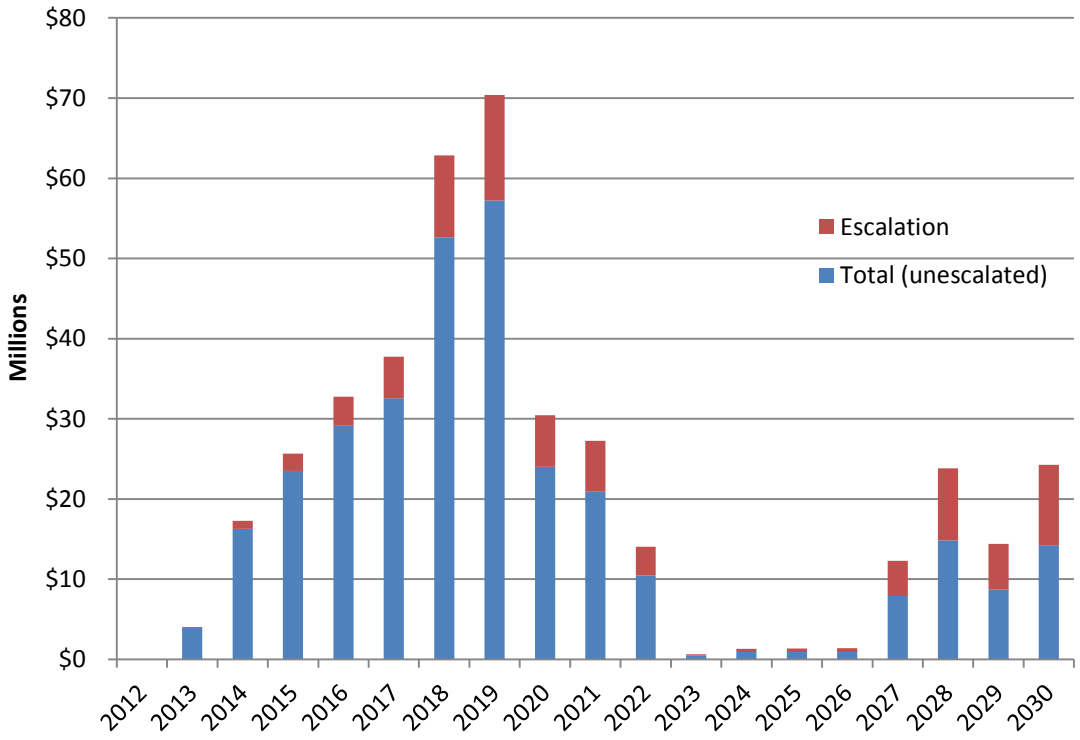
FIGURE 8 – IMPLEMENTATION SCHEDULE OF VISION PROJECTS (CONTINUED)



6.2.3 Annual Costs

As described in the schedule section, these projects are intended to be constructed at some point in the 2013 to 2030 timeframe, so the costs must include inflation and San Francisco standards to accurately portray the SFMTA's costs. Once an annual inflation factor of 3 percent is incorporated into the estimates, the total cost of implementing the facility recommendations outlined in the Vision Report is estimated to be $402 million. As shown in Figure 9, annual costs are estimated to range from $4 million in 2013 to $70 million in 2019, with an average annual cost of $21 million.

FIGURE 9 – SFMTA'S ANNUAL COSTS (ESCALATED)



6.3 FUNDING AND FINANCING OPTIONS

As discussed in the previous section, the Vision projects consist of $402 million (in year-of-expenditure dollars) of facilities improvements to be implemented through 2030. The Vision costs are significant; they will contribute to reducing SFMTA's agency-wide state of good repair backlog, which was $2.2 billion as of 2010.[6] This section presents an overview of existing and potential new funding and financing sources for the SFMTA to consider as it proceeds to

[6] Federal Transit Administration, *2010 National State of Good Repair Assessment*, June 2010, http://www.fta.dot.gov/documents/National_SGR_Study_072010(2).pdf

implement these facility solutions. For the full *SFMTA Real Estate and Facilities Vision for the 21st Century – Funding Approaches* report, see Appendix L.

Funding and financing solutions are organized into four categories (Figure 10):

- Maximize the use of existing funding streams (e.g., federal formula funds and grant opportunities)
- Maximize the revenue-generating potential of the SFMTA's real estate and facilities
- Utilize potential financing options (through the use of TIFIA or GO bonds)
- Institute new or expanded funding streams (e.g., Proposition K, vehicle license fee or revise the SFMTA's fare structure)

FIGURE 10 – VISION REPORT FUNDING SOLUTIONS

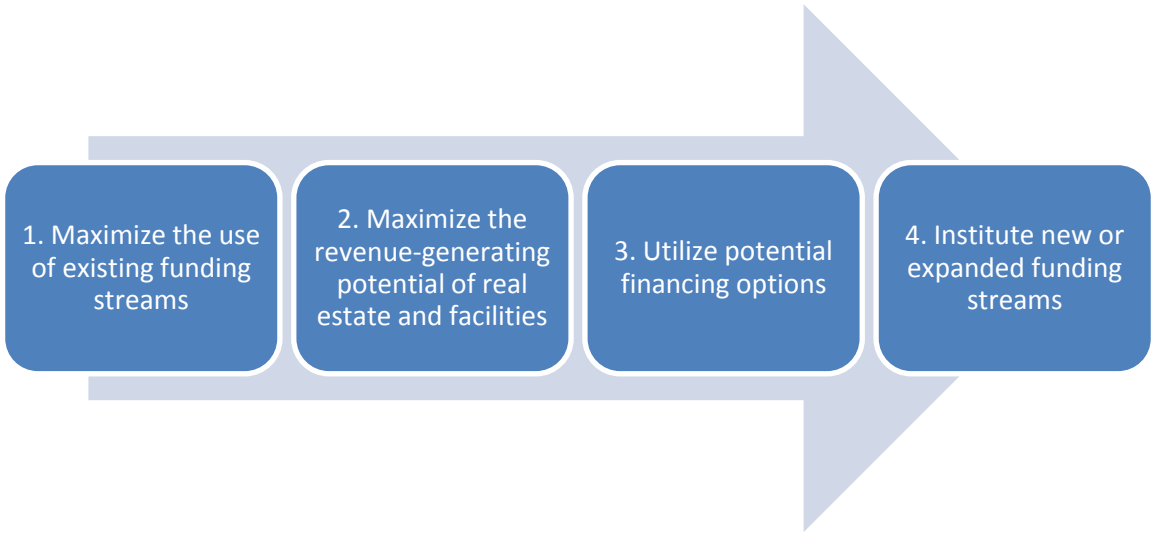


Table 4 provides a summary of all potential funding/financing opportunities, including an overview and recommendation for each option.

TABLE 4 – SUMMARY OF POTENTIAL FUNDING/FINANCING SOURCES

Potential Funding Source	Overview	Recommendation
Maximize the Use of Existing Funding Streams		
Reallocation of existing CIP funds	The SFMTA could adopt a technical change to its two-year budget and CIP to reprogram FY 13 funding to Vision Report projects rather than to MME Paint Booth or Kirkland.	In light of the Vision Report recommendations, the SFMTA should consider reprioritizing existing funding.
Bond proceeds	The SFMTA issued its first series of revenue bonds which raised $25,700,000 to finance various transit projects. The SFMTA has the ability to substitute other projects for the ones listed.	
Federal funding programs	Existing federal funding mechanisms are relatively limited in providing funding to support facilities-related projects; however, the opportunities may change after MAP-21 expires in two years.	
Proposition K renewal	The SFMTA should work with SFCTA to ensure that facilities are included in Proposition K renewals.	
State and local funding	▪ A case could be made for Prop 1A funds to fund maintenance facilities as a "connectivity project" to support California's high speed train system ▪ Prop 1B funding may become available upon the issuance by the state of additional bonds with eligible uses including maintenance facilities ▪ Prop 1C may provide funding that could enhance the financial feasibility of the SFMTA's TOD projects ▪ Facility funding agreements may generate significant revenues from upcoming new commercial and office developments in San Francisco	The SFMTA should communicate with the State Legislature regarding the timetable for the future issuance of Prop 1A, Prop 1B, and 1C bonds and how funds are being allocated. Additionally, the SFMTA should consider reprioritizing how they are spending the facility funding agreement revenue.
Transit Impact Development Fees (TIDF)	Major commercial and office development projects in San Francisco are required to pay Transit Development Impact Fees, which contribute toward meeting increased costs of transit demand triggered by their new users. As a policy, the City should consider continuing to assess such fees as part of development agreements. As funds become available, the SFMTA should consider allocating them to improvements identified in the Vision Report. The revenues generated by these impact fees enhance SFMTA's internal capacity to fund capital projects.	The SFMTA should ensure that the BOS approves the TIDF/TSP and fund facility maintenance from these one-time fees

TABLE 4 – SUMMARY OF POTENTIAL FUNDING/FINANCING SOURCES (CONTINUED)

Potential Funding Source	Overview	Recommendation
Maximize the Revenue-Generating Potential of Real Estate and Facilities		
Transfer of Development Rights	Owners of Historic buildings in the Downtown area are allowed to sell development rights for transfer to other parcels within the same area. Amending the Planning Code to allow such transfers is a policy decision for the Board of Supervisors. It is not possible at this time to estimate the value of such Rights.	The SFMTA Real Estate should pursue potential opportunities for transfer of development rights.
Retail leases	Offer participation rent options and tenant improvement funds, expand use of commercial brokers, streamline tenant selection and leasing, and explore further leasing of telecommunications sites.	The SFMTA Real Estate should implement these measures.
Utilize Potential Financing Options		
TIFIA loans	The newly expanded TIFIA program offers the lowest cost financing vehicle, and can allow SFMTA to finance between 33% to 49% of a project's cost, including 100% of predevelopment costs. The SFMTA potentially could utilize TIFIA funding for some of the initial design costs contemplated by the Vision Report. The major concern with TIFIA is whether demand will outstrip budgetary authorization but TIFIA staff has not experienced an onslaught of applications yet.	The SFMTA should pursue obtaining a TIFIA loan for portions of Vision Report not funded by existing funding streams or TOD/JD.
SFMTA revenue bonds	Revenue bonds are an established SFMTA funding mechanism; however, they will require using the SFMTA's limited operating funds, are labor-intensive and more expensive than TIFIA, and they impose significant annual administrative burdens.	The SFMTA should not pursue revenue bonds unless it becomes clear that no other capital funds are available on a timely basis for priority projects.
City and County GO bonds	The SFMTA has so far not benefited from the City's General Obligation Bond issuances as have other City facilities. It is reasonable to argue that SFMTA's maintenance facilities are no less important in terms of providing services to the community than other City facilities that are financed by GO bonds. The major drawback of GO bonds is that they require a 2/3 vote of the electorate.	The SFMTA should pursue City General Obligation bonds as it is the most effective local way of financing its capital needs without impact on its operating deficit, even if GO bond proceeds would be limited to SFMTA's facilities rather than equipment needs.

TABLE 4 – SUMMARY OF POTENTIAL FUNDING/FINANCING SOURCES (CONTINUED)

Potential Funding Source	Overview	Recommendation
Social impact bonds	Social impact bonds represent a new financing technique intended to accelerate social innovation and improve government performance. To date, social impact bonds have been applied to social services relating to prisons, health care, poverty, homelessness and related areas.	The time and effort associated with developing a social impact bond structure for transit may be otherwise spent pursuing other more proven options. However, the broader societal goals of the SFMTA coupled with the entrepreneurial nature of the Bay Area economy suggest a potential fit that could benefit all parties.
Design-build-finance/lease arrangements	This approach represents an allocation of responsibilities and risks. In theory, the DBF approach could generate cost savings through faster implementation and other private sector efficiencies. The DBF does not eliminate the annual financial impact to the SFMTA associated with its own debt financing. The SFMTA would be making lease payments instead of debt service payments.	The SFMTA should consider this avenue for the JD/TOD component to Presidio and Potrero.
Institute New or Expanded Funding Streams		
Short-term options	These are focused on funding streams within the SFMTA's immediate control (e.g., higher citation fees, extended parking hours, and new parking meters). The recommended measures are projected to generate approximately $20 million in additional annual revenues. These funds would supplement the operating budget and increase the SFMTA's bonding capacity.	The SFMTA should pursue any funding options that could provide funding in the short-term.
Long-term options	These options require Board of Supervisors approval, potential legislation and/or voter approval. They will likely have a longer time frame for implementation, but potentially more revenues.	The SFMTA should pursue any funding options that could provide funding in the long-term, especially if they can be directed towards the facilities' solutions.

6.4 IMPLEMENTATION CONSIDERATIONS

Previous sections of our report have provided detailed guidance for achieving both short-term operating improvements and for providing the maintenance and storage capacities to serve the growing fleet efficiently and primarily within real estate already controlled by the SFMTA. The changes discussed would also allow for at least three joint development revenue producing projects on sites that are currently SFMTA owned. We have also identified opportunities for increasing revenues from the SFMTA's garages and commercial leases.

While the benefits of the projects outlined in this report are significant, the process of implementing them is quite complex. Implementation will require funding, significant levels of approvals, a high level of coordination, and dedicated staff—both in the SFMTA and other City agencies—and require significant efforts by Operations to keep required service on the street. Since the SFMTA operates in a challenging environment, a flexible implementation approach has been developed that can be adjusted as needs change, opportunities arise, and funding becomes available.

The Vision Report should be adopted as a comprehensive program and the SFMTA should begin to immediately implement the easily captured revenue enhancing opportunities the report has identified as well as those non-capital intensive improvements that will generate operating efficiencies. The SFMTA could revisit its priorities and reallocate sufficient existing funds to provide the "start-up" funding for several of the major, capital intensive projects of the Vision Report. Funding start-up costs, such as Space Programming, Design Criteria and Preliminary Design, and JD structuring for at least Presidio or Potrero, will provide momentum to keep these projects alive and, most importantly, assure that these projects are ready to move forward quickly as construction funds become available. It is worth noting here that any cost efficiencies or increased revenues will in turn enhance the SFMTA's ability to issue more revenue bonds as it more readily meets the debt coverage requirements imposed by its present obligations.

Implementation will not be easy:

- Capital funds are scarce and competition for them is high, within the Agency as well as among agencies
- While the report includes methods of minimizing disruptions, some challenges will remain as facilities are upgraded and functions relocated
- Sufficient internal resources to ensure execution of the recommended measures are not in place at this time

Nonetheless, the SFMTA has little choice: the issue of aging facilities must be addressed, as must the accommodation of a growing fleet. This section outlines the organizational and communication requirements and suggests a series of "next steps" to be undertaken by the SFMTA Board and staff.

6.4.1 Organization

The success of the Vision effort requires the dedication and coordination of the appropriate level of staff resources. The SFMTA's ability to deliver the projects outlined in this Vision Report will require several structural changes in the SFMTA organization. A Program Manager should be dedicated solely to the delivery of these projects, supported by a Cross-Functional Working Group. Each of these is described below:

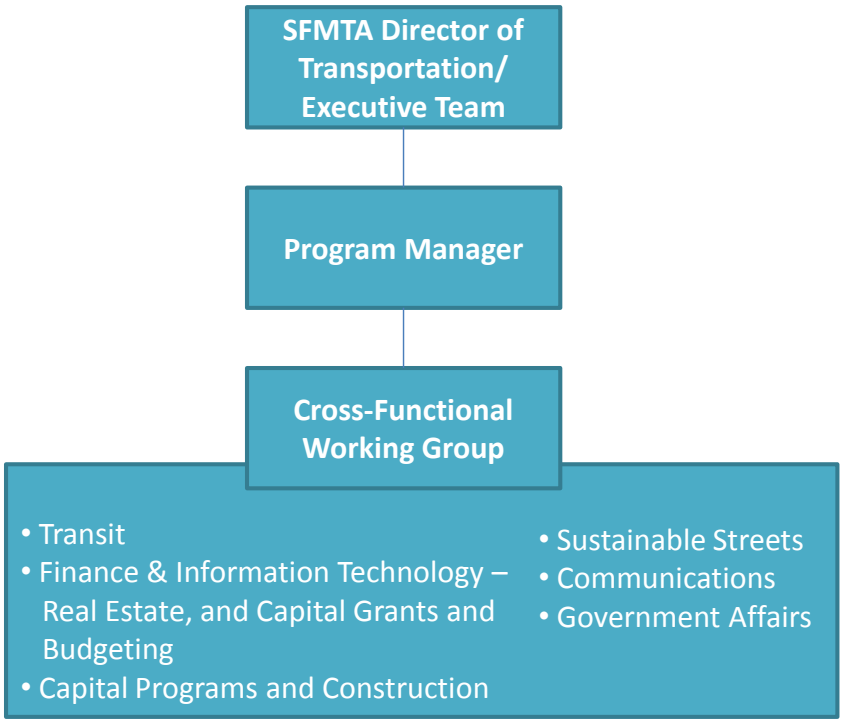
- **Program Manager** – This would be a new position intended to be fully dedicated to the planning and implementation of projects outlined in this report. Program Manager would be an in-house champion of this initiative and, as such, should be the internal manager, reporting directly to the SFMTA Director of Transportation, or the Executive Team. This person should have program management experience, strong communication skills, and, ideally, experience navigating the City's approval and outreach processes. Responsibilities of this position include the following:
  - Work with the SFMTA's Finance group to ensure that start-up funding and later design and construction funding is made available in time to meet the schedules proposed, particularly for the dependent projects
  - Manage the Cross-Functional Work Group (see below) and any other staff or consultants involved
  - Ensure staff and outside resources are being dedicated, as needed
  - Communicate costs, benefits and risks to appropriate parties and solicit their concerns and suggestions
  - Communicate with internal and external stakeholders
- **Cross-Functional Working Group** – This is a team, led by the Real Estate and Facilities Program Manager, representing each of the key functions involved with implementing the projects in this report. The purpose of this group is to ensure good coordination among and between the SFMTA's many operational units. With representatives from operations, capital construction, finance and grants, real estate, capital planning, sustainable streets, and government affairs/outreach, this group would be required to dedicate staff resources from their respective teams. The time requirements needed would vary depending on the timing of the projects.

  The SFMTA should consider the benefits of alternative project delivery methods involving partnerships with private developers in the two instances where private development is proposed for air rights over SFMTA facilities at Presidio and Potrero. Such models are discussed in greater detail in section 6.1, *Transit-Oriented Development and Joint Development* Opportunities.

The Program Manager and Cross-Functional Working Group are suggested to report directly to the SFMTA's Director of Transportation, or the Executive Team, to ensure that the necessary

resources from throughout the organization are dedicated, as needed, throughout the duration of the project. The Director of Transportation should provide the policy direction and resources needed to support the Vision implementation. The Director of Transportation should follow the status of the projects outlined in this report, assist in addressing relevant risks and issues as they arise, and communicate, as needed, with the SFMTA Board of Directors and other stakeholders. This reporting structure is depicted in Figure 11.

FIGURE 11 – PROPOSED REAL ESTATE AND FACILITIES PROJECT DELIVERY ORGANIZATIONAL STRUCTURE



6.4.2 Communications

Many stakeholder groups have interests in the projects outlined in this report. As such, it is vital that the SFMTA proactively communicate the projects' plans, status, benefits, and risks to the appropriate groups. The following outlines the communication approach for internal and external stakeholders.

Internal Stakeholders

Internal stakeholders, including Transit, Sustainable Streets, Capital Programs and Construction, Finance and Information Technology – Real Estate, and Capital Grants and Budgeting, are key to the successful delivery of the projects because they have active roles in the project delivery. As such, Table 5 outlines a suggested communications schedule, which is intended to be facilitated by the Real Estate and Facilities Program Manager.

TABLE 5 – INTERNAL STAKEHOLDER COMMUNICATIONS

Internal Stakeholder	Update Frequency
SFMTA Board of Directors	Quarterly
SFMTA Director of Transportation	Bi-weekly
Cross-Functional Working Group	Weekly

External Stakeholders

External stakeholder groups include, but are not limited to the following:

- The SFMTA's labor unions
- City decision makers and staff, such as the Mayor and Mayor's staff, Members of the Board of Supervisors and their staff, County Transportation Authority, Department of City Planning, Department of Public Works, and the City's Real Estate Department
- Citizens Advisory Committees
- Interest Groups, including Market Street Railway, SPUR, the Chamber of Commerce, neighborhood groups, and Rescue Muni
- Neighbors of TOD/JD sites

Since these groups' interests are quite varied, the timing and content of their updates will also vary. Once the implementation plan is finalized, the Program Manager should work with the Government Affairs and Communications Leads to develop an outreach plan that appropriately communicates with all relevant external stakeholders. Limited outreach will be undertaken prior to submittal of the Vision Report for the SFMTA Board review.

6.4.3 Next Steps

Next steps are organized into short-term (in the next two years) and long-term (the duration of the implementation schedule). Short-term activities are described in detail while long-term activities are intended to be more high level since the actual activities are likely to vary depending on the Agency's operational needs and funding availability.

Short-Term Next Steps

In the first two years (2013 and 2014), there are seven key activities that need to be undertaken concurrently:

- Structure internal processes necessary to achieve the Vision
- Finance
- Detailed space programming / design criteria
- Conceptual design and construction cost estimate refinement

- Sustainable project design
- Traffic Signal Shop relocation
- Implementation plan refinement

Many of these steps are not resource-intensive; however, they provide the foundation for implementing later projects in a consistent, efficient way. They also provide opportunities for the SFMTA to gain momentum and showcase early accomplishments. The seven steps are described in more detail below.

1. Internal Processes. The Vision Report outlines a comprehensive solution for development of SFMTA facilities to meet projected needs and assure continuous, safe, and reliable transit service in the San Francisco service area. This will require the SFMTA to plan, design, and construct facilities at a pace that is beyond what has been done in the past and will require a more streamlined internal process to enable the Vision to be realized. Sections 6.4.1 and 6.4.2 outline recommendations in organization, communications, and approvals that should be refined and implemented as soon as possible. This will allow these new processes to be tested and further refined over the next two years, which will assure that efficient internal processes are in place and working well before major design and construction efforts are started.

2. Finance and Information Technology (FIT). The following highlights the key next steps associated with obtaining funding for the projects outlined in this report:

- **Update SFMTA's Capital Plan –** Reconcile the Vision Report project recommendations with the SFMTA's unconstrained capital plan for facilities. The SFMTA will then need to prioritize the projects in the context of the SFMTA's overall capital needs.
- **Re-prioritize SFMTA's CIP –** The specific facilities projects in the Vision Report must be included in the SFMTA's capital budget prior to the expenditure of any funds. To enable the early funding of design costs, the SFMTA may need to amend its current five-year capital budget for facilities, approved in April 2012, and reallocate a portion of existing CIP funds, particularly in FY 2013, for Vision start-up costs. In addition, the SFMTA is able to utilize its project substitution flexibility under its revenue bond indenture to reallocate a portion of the $25.7 million raised in July 2012 to fund design costs associated with the highest priority Vision Report projects.
- **Seek Amendment of MTC's Existing Policy for Allocating Federal Formula Funds –** The SFMTA should work with other transit agencies in MTC's jurisdiction to amend MTC's policy that preferences vehicle replacement and fixed guideway projects over maintenance facilities.
- **Implement Retail Lease Recommendations –** The SFMTA should continue to implement the recommendations identified in the Vision Report to maximize the value of current retail

leases, including offering participation rent options and tenant improvement funds, expanding use of commercial brokers, streamlining tenant selection and leasing, and exploring further leasing of telecommunication sites.

- **Seek TIFIA Funding –** Seek TIFIA loans for design and other costs associated with the most ready projects.
- **Advance Most Immediate TOD/JD Projects –** Refine the feasibility analysis associated with the private development and financing of Presidio South. Conduct such further analyses of the comparative benefits of various possible development scenarios for Presidio South, Presidio North, and Potrero and make a decision to move forward with at least one if not both of the projects as quickly as possible to take advantage of the robust development market in San Francisco. As an alternative, the SFMTA could offer both sites to the marketplace and then make the decision about which to pursue first based upon proposals received. Shifting from Presidio South to Potrero would affect the sequencing of the Shuffle. The Implementation Plan currently shows Presidio being redeveloped before Potrero, but this order can be easily reversed (with the understanding that a permanent home for Overhead would be postponed).
- **Continue Promoting Need for New Funding Sources** – Use the Vision Report to lay the foundation for the pursuit of other funding sources, including (1) future Federal transportation bill re-authorization that will include funding programs for existing facilities; (2) significant additional revenues that will flow to the SFMTA so that it can address its structural operating and capital funding deficits; and (3) the issuance of GO bonds to finance the costs of reconstructing/rehabilitating existing facilities in the same manner that the City finances other municipally-owned facilities that benefits its residents.

3. Detailed Space Programming / Design Criteria. The recommendations include complete redevelopment of four facilities (Presidio, Potrero, Kirkland, and Cameron Beach), significant rehabilitation at three facilities (Woods, Scott, and Burke), renovation and sustainability projects at four facilities (Green, Green Annex, Flynn, and MME), and construction of a new consolidated Body Repair and Paint facility at MME. These projects should result in a working environment that is standardized across the system. In order to assure that these projects are developed with consistent results, there should be a set of detailed, standard design criteria developed to guide the design. The design criteria should start with a detailed space program for the spaces and functions to be at each facility. The detailed criteria should also address workflow and operational standards as well as the physical requirements of each building system (materials, finishes, lighting, power, mechanical (HVAC), plumbing/piping, fire protection, environmental, structural, civil (storm water, drainage, grading, and paving), and functional layout. This detailed design criteria should be developed in the first two quarters of 2013 with input from the various user groups to generate buy-in and instill a sense of ownership. These criteria should then be applied to each project and updated after each project so that the latest thinking and "lessons learned" are applied to each succeeding project.

4. Conceptual Design and Cost Estimate Refinement. The site and facility layouts presented in the Vision Report are typically diagrammatic and need to be more fully developed before preliminary design can begin. It is recommended that conceptual site plans and floor plans be developed for each facility based on the detailed design criteria developed above. These plans should again involve the users where appropriate, in order to confirm that functional needs are being met within the framework of the overall Vision.

One of the first steps in the design process will be to have accurate baseline information including a detailed survey of each site (Presidio, Kirkland, Potrero, Flynn, Scott, Woods, Islais Creek, MME, Green, Green Annex, Cameron Beach, Burke) showing boundaries, topography, utilities, easements, trees, pavement, buildings and any other improvements and restrictions. Accurate as-built drawings should be developed for Flynn, Scott, Woods, Green, Green Annex, MME, Islais Creek, and Bayshore. (Note that as-built drawings of Presidio, Potrero, and Kirkland may not be needed due to the fact that they will eventually be demolished for redevelopment of each site.) The conceptual designs should include detailed site layouts and floor plans taken to the 15% to 30% level of design. This will provide the basis for updated construction cost estimates. These conceptual designs, the detailed design criteria, and updated construction cost estimates will form the basis for moving into preliminary design.

5. Sustainable Project Design. The sustainable projects mentioned under independent projects (paragraph 4.3.1) and more fully described in Appendix G, would improve the working environment and help minimize operating costs at four existing facilities (Flynn, Green, Green Annex, and MME). Not including the photovoltaic system at MME, these sustainable projects total $7,699,768 (without escalation). It is recommended that the SFMTA start the design on these projects in 2014 at a projected cost of approximately $650,000 (without escalation). The construction on these projects is scheduled for 2015 and 2016.

6. Project Construction. The most immediate concern is moving Traffic Signal from its current location at Rankin due to the need to vacate the site by June 2013. The Marin facility was identified as a potential location for the Traffic Signal Shop; however, other alternative sites are also being considered. A decision on the location needs to be made as soon as possible so that any modifications that may need to be made to existing facilities can be planned and implemented in time for the Traffic Signal Shop to move operations by mid-2013.

In addition, design for the historic streetcar canopy-covered storage tracks at MME should begin, as well as the design of the consolidated Body Repair and Paint facility. Planning and Environmental design work should also begin for the Presidio Bus and Overhead Lines facilities.

A portion of these design dollars should be used for getting surveys and developing the detailed design criteria and concept designs, which will result in more accurate cost estimates.

7. Implementation Plan Refinement. With the detailed design criteria, conceptual designs, and updated cost estimates, the SFMTA will have the information necessary to refine the implementation plan including determining the project delivery method to be used for each project. These project delivery methods can have a significant impact on cost and schedule and could range from standard design-bid-build to design-build, construction management-at-risk, or developer led. Each approach has advantages and disadvantages that need to be fully vetted to determine which approach is most advantageous to the SFMTA for each project from a cost, schedule, and risk perspective. *Note that the detailed design criteria and conceptual designs are a key first step in whichever project delivery approach is taken.*

These and other key short-term next steps are summarized in Table 6.

TABLE 6 – SHORT-TERM NEXT STEPS

Stakeholder Group	Short-Term Next Steps
Board	▪ Approved Resolution 12-137 re: the proposed sale of the Upper Yard to MOH ▪ Receive Vision Report ▪ Approve real estate policy
Executive Team	▪ Approve reallocation of CIP $ for Vision projects ▪ Seek amendment of MTC's existing policy for allocating federal formula funds ▪ Seek TIFIA funding ▪ Advance most immediate TOD/JD projects ▪ Designate people responsible for implementing the Vision ▪ Continue the search for new, additional funding sources ▪ Implement retail lease recommendations ▪ Provide resources for staffing implementation
Management/ Staff	▪ Relocate Traffic Signal Shop from Rankin to Bayshore ▪ Relocate Schedules from Presidio to 1 South Van Ness ▪ Relocate Video Shop to Bayshore and historic vehicles from Marin to MME ▪ Incorporate Vision Report projects into Capital Plan ▪ Develop internal processes ▪ Develop detailed space programming/ design criteria ▪ Begin conceptual design and refine construction cost estimate ▪ Incorporate sustainable project design features ▪ Refine Implementation Plan

If the SFMTA is able to identify only $3 to 4 million dollars in the first couple of years, the following are presented as suggested priorities:

- Develop detailed design criteria for motor coach facilities (Woods, Kirkland, Flynn), electric trolley bus facilities (Presidio, Potrero, Flynn), central Body Repair and Paint (MME), and Burke
- Develop detailed design of sustainability projects for Green Annex, Green, Flynn, and MME (not including the photovoltaic system)
- Develop the conceptual design and cost estimate updates for the following facilities (in order of importance): Flynn, Presidio, Burke, Woods, Central Body Repair and Paint (MME), Historic Street Car Storage (MME), Potrero

Note: This assumes that the design and construction of the Traffic Signal Relocation and the equipping of MME are addressed separately.

Long-term Implementation Activities

To implement the projects described in earlier sections, there are at least six distinct tasks or functions that need to be addressed. These are as follows (in no particular order):

- **Funding/Finance** – The SFMTA staff will need to make a major effort to secure funding for these projects and to do so as closely as possible to the schedule proposed—particularly for dependent projects.
- **Planning and Entitlements** – While on-site improvements, such as those proposed for the Woods and Burke facilities, are unlikely to require environmental review or Planning Department or Planning Commission approvals, the proposed JD and TOD certainly will. In addition, Board of Supervisors action will be needed to obtain rezonings and to enter into long-term ground leases. Necessary actions, and a projected schedule, are included in Section 6.1.
- **Capital Project Management** – Most, if not all of the proposed capital projects will likely need to go through the traditional project delivery process, including planning, environmental clearance, design, engineering, and construction. Stand-alone, site-specific minor upgrades can best be handled routinely. Multi-site efforts such as the dependent projects will require a higher level of management. The JD opportunities may best be realized by creating alternative, public-private development formats. These are discussed in Section 5.1.
- **Operational Adjustments** – For the SFMTA to maintain operations during the facilities' renovation and construction, Operations will need to adjust schedules and storage and maintenance locations accordingly. This will likely require additional budgeted operating and maintenance funding to handle the transitions.
- **Real Estate Transactions** – TOD and JD projects require entering into ground leases, air rights leases, or purchase and sale agreements with third parties and will require developer solicitation and selection, negotiation of term sheets, and, finally, lease or sale documents.

- **Community Relations/Outreach** – The successful delivery of the projects outlined in this report will require significant stakeholder communications and buy-in.

These and other key long-term next steps are summarized in Table 7.

TABLE 7 – LONG-TERM NEXT STEPS

Stakeholder Group	Long-Term Next Steps
Board	▪ Approve Vision projects ▪ Support Vision projects with appropriate funding, staffing, and other approvals, as needed
Executive Team	▪ Continue to seek funding for Vision Report projects ▪ Seek appropriate approvals for Vision Report projects
Management/Staff	▪ Coordinate/communicate among each other (capital, operations, finance, etc.) ▪ Conduct necessary stakeholder outreach

7 Conclusion and Next Steps

The SFMTA needs to take the next steps to implement the recommendations in the Vision Report to move forward within the 21st Century to be prepared to serve an estimated one million transit riders daily by 2030, plus provide up-to-date and appropriate real estate and facilities for all its employees, fleets, and services. These measures are critical to the ongoing mission of the Agency. If the SFMTA does nothing, its existing real estate and facilities will not provide sufficient space to accommodate the overall fleet projections for 2030 and beyond. The Vision Report's recommendations require selective leasing or acquisition of new property and focuses on reconfiguring and retrofitting facilities to maximize current resources, improve operational efficiency, and minimize disruption to ongoing transit operations.

Three of the SFMTA's facilities—Potrero, Presidio, and the Overhead Lines facility on Bryant Street—were identified as being in a state of disrepair and at the end of their useful life expectancy. All three facilities are at or more than a century old; if the Agency does not take any action, the continued operations and safety of the facilities may be compromised. All three facilities also do not have enough capacity to handle their current fleet and have inherent design inefficiencies that hinder operations. They would be expected to suffer damage in an earthquake which would significantly hinder the City's economic recovery.

Many of the facilities also have equipment that is not in a state of good repair. Metro Muni East provides valuable space, but the facility is not outfitted with the appropriate equipment to be fully functional for truck overhauls, wheel and axle work, and gearbox and brake work. Not doing anything would be highly inefficient for ongoing operations and would jeopardize the ability of the facilities to function at all.

A primary goal of these recommendations is to prevent the catastrophic failure of critical facilities that have long ago reached obsolescence. Thus, the urgency with which the organizational structure is addressed is necessary to keep projects moving forward as rapidly as possible. Additionally, once implemented, the Vision Report will result in a more efficient and sustainable system—one that best uses existing SFMTA real estate resources to meet future needs. The report identifies possible revenues, including the rents from ground leases at TOD/JD sites.

Over the next few months, SFMTA staff and Board, and citizens and other decision makers should undertake a thoughtful review of the Vision Report's assumptions, recommendations, and implementation measures. Moving the Agency forward to meet the demands of the 21st Century will be challenging. This Vision Report is offered as a blueprint for meeting that challenge.

Appendix A:

2030 Fleet Projections and Vehicle Equivalent Analysis

Appendix B:

List of Documents Reviewed

Appendix C:

Site Visits and Interviews Documentation

Appendix D:

SFMTA Peer Analysis Report

Appendix E:

List of SFMTA Garages with Retail Leases

Appendix F:

Drawings

Appendix G:

Sustainability Projects

Appendix H:

Traffic Signal Space Requirements

Appendix I:

Evaluation of TOD/JD Potential

Appendix J:

Central Subway Transit-Oriented Development Potential

Appendix K:

Cost Estimate Summary

Appendix L:

Funding Approaches

Appendix M:

Glossary of Acronyms and Terms