

MBTA Fiscal and Management Control Board

Second Annual Report

December 15, 2016

Joseph Aiello, Chair
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MBTA Fiscal and Management Control Board

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Members of the General Court:

This document fulfills the requirements of Section 207 of Chapter 46 of the Acts of 2015 that the MBTA Fiscal and Management Control Board (FMCB) report annually on, among other things, the Massachusetts Bay Transportation Authority's "own source revenue, operating budget, capital plan and progress toward meeting performance metrics and targets and metrics." The FMCB's charge is to oversee and improve the finances, management, and operations of the MBTA.

Since its first formal meeting on July 21, 2015, the Board has met in public session more than 70 times, almost always offering time for public comment. The Board has sought to be transparent and deliberative not just because that is the proper way to conduct public business, but because it wants all stakeholders to understand – and to help the Board to resolve – problems at the MBTA that had built up over decades.

Fixing the MBTA is neither simple nor instant. It took this Board its first 18 months to take initial actions to address an MBTA in crisis and then to diagnose and begin to make necessary changes. It will take more time to enact those changes, including securing the talent needed to implement them. As detailed in this report, hard work continues to be done every day on institutional reform, fiscal sustainability, better management, and other measures to position the MBTA for a much improved future. But what really matters – noticeably better and more reliable service for MBTA customers – will lag internal reforms because improvements to infrastructure are phased in over years.

This Board is confident that the work of the last 18 months will soon begin to clearly and consistently show up in the daily experience of MBTA customers. FMCB members are well aware that the sometimes invisible efforts underway to rebuild the MBTA's organization and infrastructure matter little to customers if commutes are not getting better or if buses and trains are overcrowded, slow, late, or even canceled.

This report details the many activities and initiatives that have been undertaken by the FMCB and at the MBTA over the past year to help the General Court and other stakeholders understand the depth and breadth of what it has taken and will continue to take to produce a much better MBTA. While proud of the foundation that has been laid for such a future, this Board also knows it must accelerate progress at the MBTA, especially in three priority areas:

Near-term actions to improve the customer experience.

The T must continue to identify and implement measures that will improve the customer experience across all modes and will bear fruit in the near term. Some short-term measures have already been identified, such as the dedicated bus lane pilot in Everett and steps to reduce Orange Line headways by 30 seconds, which will produce capacity increases of up to 10 percent. The MBTA has been able to repurpose \$100 million of state funding that used to go to cover operating expenses into the capital maintenance fund "lock box;" it must now use those and other funds to accelerate immediate improvements for riders.

Better delivery of MBTA capital projects, especially state of good repair (SGR) investments to increase system
performance and reliability.

This report discusses steps that have been taken to enhance capital programs and delivery at the MBTA. With the T still facing an SGR backlog of at least \$7.3 billion – which keeps growing with inflation — those steps must now translate into real improvement in how much, how quickly, and how effectively the T spends its capital dollars. This SGR backlog figure will likely grow as the SGR database is updated.

Develop a business, investment and service delivery-oriented MBTA Strategic Plan in spring 2017.
 This document must address the overall permanent governance needs to effectively oversee the MBTA as well as organizational and management strategies to meet timelines and targets for significant and specific improvements that will be established for the Authority.

The FMCB must face these and other critical priorities in the months ahead. It will do so while working with all stakeholders, including MBTA employees and their unions. The FMCB has made judicious and balanced use of the legislatively granted waiver from state law – commonly known as the Pacheco Law -- that governs the privatization of services currently provided by public employees. This important tool has enabled a near total focus of the MBTA workforce on core operations.

The next section of this report details key efforts made during the past year, including:

- Through internal cost controls and improved own-source revenues, the FY2017 operating deficit is down sharply from the previous year. Annual operating costs at the T are now growing at the slowest annual rate in at least 15 years. The T's debt has been restructured and refinanced. Operating budget pressures and resources beyond FY2017 will continue to be a challenge at the MBTA.
- Capital spending is now prioritized to investments that will directly improve system reliability and enhance the rider
 experience, with a focus on improved on-time performance and safety. Funds that once had to be used to cover operating
 expenses have instead been moved into the capital maintenance fund lock box to help fund capital projects. But the T's
 major state of good repair backlog will only be addressed effectively by accelerating capital project planning, development,
 and delivery.
- A number of MBTA departments, including human resources, contracts and procurement, capital programs and delivery, and real estate and advertising, have new leadership and have been reorganized along functional lines. And employees who had been paid out of out of the capital budget continue to be transferred to the operating budget.
- As the T moves toward implementing a new automated fare collection system (AFC 2.0), it continues to improve its web
 site, apps, and other communications systems to make them more user-friendly to better enable riders to get the real-time
 information they need and to track system performance.
- Overtime and dropped trips are significantly down, which translates into better and more reliable bus and other service for riders.
- The T is partnering with the private sector to perform certain operations and functions in ways that generate both financial savings and improved performance. The Innovation Policy recently adopted by the Board will further encourage the flow of ideas into the Authority.
- A second year of winter resiliency efforts has better positioned the commuter rail and transit systems to withstand major storms and extended cold weather.

Now that a strong foundation has been laid, the pace of change at the MBTA must accelerate. As outlined in the final section of this report, in addition to continuing and deepening its organizational rebuilding, the MBTA must develop a blueprint for institutionalizing and expediting progress in a way that delivers measureable improvements in performance and the customer experience. Two key efforts now underway -- the MBTA Strategic Plan and the Focus40 long-term capital plan – will provide key elements of that blueprint.

The FMCB owes it to customers, taxpayers, and MBTA employees to accelerate progress. The Board looks forward to continuing to collaborate with the Legislature to not only keep improving the MBTA, but to make sure that those changes stick, that MBTA customers feel and believe that the change is real, and that institutional and structural improvements yield both better service and a better MBTA.

Respectfully submitted,

Joseph Aiello, Chair

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I. Introduction: Accelerating Progress

With the filing of this report, the FMCB is now about halfway through its three-year term. For much of the first year, the Board focused on fighting immediate fires and diagnostics, identifying and assessing the range of fiscal, operational, managerial and other issues facing the MBTA. The FMCB "had to spend much of 2015 playing defense," the Board noted in last year's annual report. "In 2016, it will go on offense."

The FMCB has been able to pivot from a reactive to a more proactive role. But now it must further accelerate the pace of improving service. Better performance, in turn, will hopefully help restore public confidence that the transformation of the MBTA is not only possible – it is in fact underway.

Last year's annual report laid out a set of guiding goals and priorities for the MBTA. The main section of this report details areas of success as well as areas where the grade remains incomplete.

Highlights include:

- Operating budget: "Though it will require difficult and sometimes unpopular decisions," last year's report said, "the FMCB believes it is possible to move rapidly toward meeting the legislative goal to balance the MBTA operating budget... Bold action immediately to reset the structural deficit and reduce the rate of future forecast operating expense growth would significantly ease fiscal out-year pressures." As noted above and in greater detail later in this report, both the deficit and the rate of expense growth have been significantly reduced. Major progress has also been made on another of last year's priorities "to develop a sustainable debt management strategy as part of a long-term fiscal stability strategy."
- **Customer-facing improvements:** The MBTA has significantly enhanced the interface between the MBTA and its customers, providing them with real-time, accurate access to performance, finances, and other data. Progress continues toward a state-of-the-art automated fare collection system. This greater transparency means that when the system fails, people know it, and they expect things to get better. So does this Board.
- Shifting operating funds to capital needs: Last year, the FMCB sought to dedicate a significant portion of the funds now appropriated by the Legislature for operating expenses to instead help pay for capital needs, such as track, power and signal improvements. A capital maintenance "lock box" was created to fund such immediate capital investments to improve system performance and reliability. On the incomplete side of the ledger, however, the T still lags in actually getting capital projects, including lock box projects, out the door and into implementation.

I. Introduction: Accelerating Progress

- Capital spending: MassDOT's 2017-2021 Capital Investment Plan emphasized investments to improve system reliability. Changes in both the leadership and organization of capital program delivery at the T should lead to better and more rapid action to move those investments ahead.
- Expansion projects: The Board has been able to apply lessons learned from the Green Line Extension experience to inform changes in how important projects are now being managed. Qualified new leadership is now in place for GLX and some financing hurdles have been cleared due to the cooperation of surrounding communities and others as project development proceeds. Work also continues on routing options for South Coast Rail, responsibility for which has now been shifted from the MBTA to MassDOT.
- **Strategic planning:** The Board has conducted a series of public meetings to collect input as it continues work toward a MBTA Strategic Plan to help shape the MBTA of the future.

The next section of this second annual FMCB report provides an overview about these and other fiscal, operational, and other areas of FMCB focus over the last year. Much greater detail about all of these and other topics can be found in the meeting minutes, reports, presentations, and other materials at http://www.mbta.com/about the mbta/board meetings/fmcb/.

A. Legislative Roadmap to the Report

Section 207 of Chapter 46 of the Acts of 2015 requires the FMCB to report annual progress on: Improving customer relations, including performance metrics and targets10 Planning and preparedness processes [including] adopting an incident command system14 Maintaining 1-year and 5-year operating plans and budgets18 Increasing own-source revenues; utilizing the lease and sale of real estate assets to support the long-term health of the system and implementing value capture strategies25 Imposing a barrier between the commingling of operating and capital budgets29 Maintaining a 20-year capital plan for the restoration of physical assets and priority list of immediate capital needs for the next 5 years37 Conducting thorough reviews and analyses of all proposals for system expansion45 Identifying and implementing best practices supporting workforce productivity and engagement; reducing employee absenteeism49 Reorganizing internal structure along modal business lines57 Centralizing authority procurement and contracting, implementing best procurement and contracting practices [and] reducing barriers to public-private partnerships59

II. Improving Customer Service

A. Setting Targets and Sharing Performance Data

The Legislature calls for this report to update "progress toward meeting performance metrics and targets." This section summarizes system performance in key modes. It also discusses how the MBTA's revised Service Delivery Policy uses new sources of data in order to better measure the customer experience.

Customers and the general public can obtain information on system performance in several ways. Short-term targets towards set performance measures are available in the MassDOT Annual Performance report, which is called Tracker.

Daily reliability is reported on the MBTA performance dashboard at www.mbtabackontrack.com. This interactive dashboard allows the public to:

- See any given day's reliability for the subway, buses, and commuter rail, both in the aggregate and for an individual line;
- Review earlier performance with weekly and 30-day trends;
- Isolate peak or off-peak performance for each mode and line;
- See how performance measures against target goals for each metric.

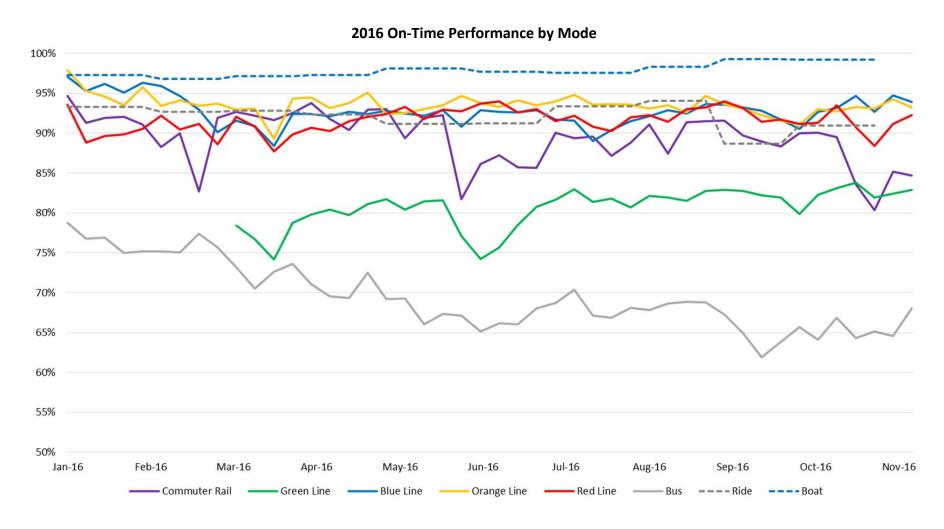
The MBTA recognizes that in addition to actual service performance, communication with customers is central to how they experience the transit system. The Authority is continuing to develop ways to improve communications, including how to streamline the process for addressing customer complaints, suggestions, and requests for information. This will help the MBTA to identify key trends and areas for improvement.

B. Performance by Mode

The MBTA tracks reliability for each mode separately. As part of the Service Delivery Policy process, the definitions of reliability were updated to better match how customers experience the system. However, this means the T currently lacks year-over- year data for all modes.

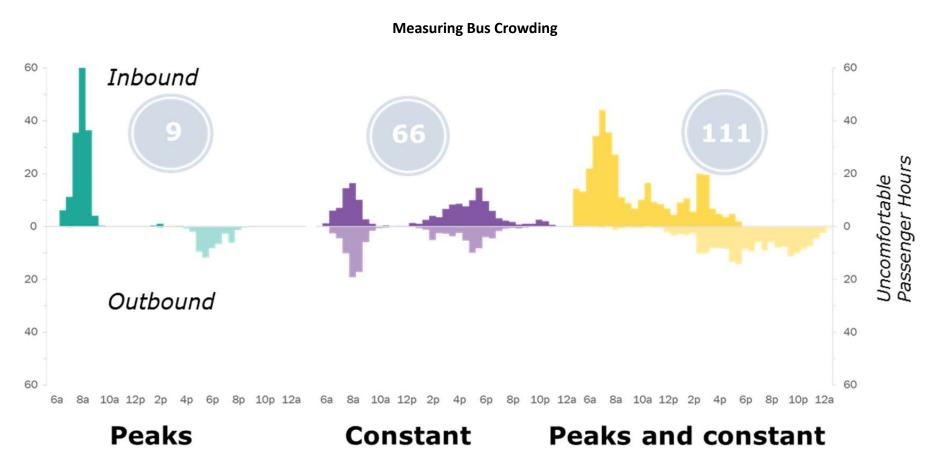
II. Improving Customer Service

The subway lines have maintained their performance over 2016 and the Green Line performance has improved. However, performance for bus and commuter rail service has declined.



Using its automated data sources, the MBTA has built a model that allows it to estimate the number of passenger minutes in crowded conditions on each bus route. This measure more accurately reflects the customer experience of crowding by recognizing that what matters is the amount of time a passenger is crowded.

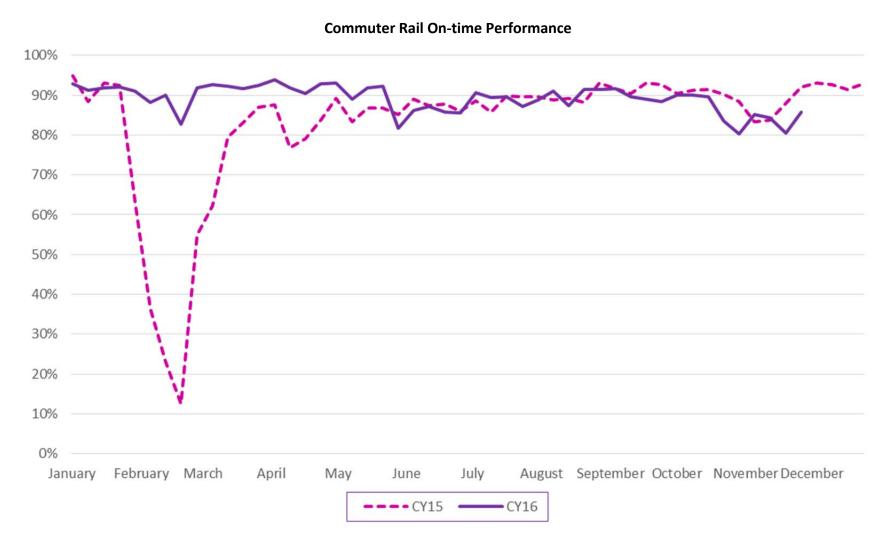
The data shows that while 94 percent of passenger minutes spent on MBTA buses are comfortable, high levels of crowding occur on 30 bus routes. The model gives crowding by time of day and by route segment. The MBTA is using this data to determine the best tools to address the problem. For example, different bus routes show different patterns of crowding. Some routes, such as the #9, have high levels of crowding during the morning peak while others have high levels of crowding all day long, such as the #111.



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II. Improving Customer Service

The MBTA is paying special attention to the performance of the Commuter Rail system. The chart below tracks commuter rail on-time performance (unadjusted), comparing calendar year 2015 to calendar year 2016 to date. While it shows clear improvement since the winter of 2015, overall commuter rail performance has declined over the final quarter of 2016. December saw improvement as key actions were implemented.



The MBTA continues to work closely with Keolis to address and improve on-time performance.

C. Service Planning

In January 2017 the FMCB intends to adopt a revised, comprehensive Service Delivery Policy. The Service Delivery Policy, last revised in 2010, sets how the MBTA measures service quality, service availability, and priorities in the service planning process. Throughout 2016 the MBTA finalized the measures and performed the baseline analysis in order to formulate priorities for the next round of service planning. The FMCB had a workshop to discuss the measures in the Service Delivery Policy on October 20, 2016. The full presentation is available online. (http://mbta.com/uploadedfiles/About the T/Board Meetings/Service%20Delivery%20Policy%20-%20Final%20To%20Upload(2).pdf)

The revised Service Delivery Policy will be used to guide a new service planning process focused on bus service. The MBTA will do a new service plan for each of its seven bus districts at least once every three years. The first bus district plan will start in January 2017. The continuous service planning process includes two main steps. First, the existing bus routes are analyzed in order to rebuild the schedules to match existing travel times, determine frequency and span of service to meet demand, and review the cost-efficiency of each route. The second step is to analyze origin and destination data and public input in order to modify routes to better fit travel patterns. The planning process for each bus district will include significant public outreach.

While this immediate service planning process focuses on bus service, the MBTA and MassDOT will start a process in 2017 to optimize the entire network. This process will consider how the legacy bus network should evolve in response to changing demographics and development patterns, as well as the role each mode should play in the overall MBTA network to meet existing and future regional travel needs. The MBTA is also working with our municipal partners to improve bus service by prioritizing buses on high ridership road segments and signals.

D. Resiliency, Planning, and Preparedness

The MBTA has spent considerable resources on a range of preventive measures to handle the effects of winter weather. Among other steps, by the end of November 2016, MBTA workers had installed:

- Nearly 105,000 linear feet of brand new third rail between JFK/UMass Station and Quincy on the Red Line;
- More than 52,000 linear feet of "Heater Element Infrastructure," which includes the conduit, wiring, and junction boxes to support the Red Line's third rail heating systems;
- 200,000 linear feet of new wiring for the Orange Line's third rail heating system;
- 5,321 linear feet of snow fencing along Orange Line tracks.

The MBTA has 80 stainless steel plows for Red and Orange Line trains and continues to equip trains with rail de-icing equipment. Yearly testing of all equipment has been designed into normal vehicle inspection and will take place as part of the Winter Preparedness Drill.

MBTA has also worked with contractor Keolis on operation improvements to increase the commuter rail system's reliability. Since the winter of 2015, Keolis has purchased 52 new pieces of snow removal equipment, including 10 snow fighters, six speed wings, six wheel loaders, and 25 John Deere tractors. Commuter rail locomotives have been outfitted with new traction motors better able to withstand severe winter weather conditions. Other measures include continuously running trains – even when empty – under certain low temperature conditions and o keep rails clear of snow. Heaters have been installed on critical switches and coach doors are pre-treated with de-icing solutions 12 to 24 hours in advance of snow or heavy cold to minimize freezing.

Even with this continued emphasis on winter preparation and resiliency, the MBTA continues to prepare employees for incidents dealing with snow, fire, smoke or other disruptions. Increased training and focusing of customer disruptions has become the center of the Emergency Preparedness program.

Preparedness

The MBTA must be prepared for all emergencies, weather and otherwise. The MBTA has held multiple drills to improve employee awareness and communication relating to train evacuation.

In May 2016, the MBTA staff and the five Barnstable village fire departments, the Barnstable Police Department, Barnstable County Regional Emergency Planning Committee, Mass Coastal Railroad, Keolis, Cape Cod RTA, MEMA and Massachusetts DFS simulated the evacuation of 75 riders with simulated injuries. First responders performed a technical rescue from two derailed cars which were simulated by heavily modified conex boxes, implemented medical triage and created incident command posts.

On October 29, the MBTA conducted its annual subway drill, consisting of evacuation from a Red Line train with excessive smoke in the tunnel near Alewife Station. Fifty volunteers were evacuated, including customers with disabilities requiring the use of evacuation equipment on MBTA trains. The drill was designed to simulate similar conditions experienced in the Washington DC Metro (WMATA) incident of January 2015. The MBTA was assisted by Cambridge, Somerville and Arlington Fire Departments, Cambridge Police and the DPU.

Incident Response

In order to prevent customer disruptions, After Action Reviews (AARs) have been conducted for incidents requiring service disruption, rules violations or operational deficiencies. Seventeen AAR's have been performed, with assigned corrective actions tracked for remediation by relevant departments. Corrective actions are reviewed monthly and are discussed at various senior management meetings until they are completed.

One corrective action was to establish coordination meetings of incidents requiring response by the Boston Fire Department. These monthly reviews have led to numerous changes to the relationship, including emphasis of the ICS command structure, utilizing trains to take fire fighters to incident sites to speed restoration of service, and broader testing of underground radio systems. The MBTA and Boston Fire Department have begun to implement joint changes to standard operating procedures, ensuring all roles and responsibilities are clearly defined when responding to an incident.

Employee Training

Utilizing video from the Alewife Subway Drill, the MBTA is developing evacuation training videos for personnel and first responders. Training will focus on steps to take when evacuating a train including the importance of customer communication. Videos for distribution to riders will be developed to instruct customers on what to expect when trains are being evacuated.

The MBTA continues to train employees through its Security Awareness and Emergency Preparedness course. This covers an overview of the National Incident Management System, ICS, emergency communications protocols, emergency evacuation procedures, suspicious package training as well as an active shooter module. The training is offered as a day-long course to front-line personnel and has been shortened for presentation to all employees.

E. Employee Outreach Plan

The MBTA embarked this year upon an outreach effort to engage T employees in a way that increases morale and enhances communication and commitment, which in turn can help create an improved customer experience. The outreach, which began this past summer with front-line personnel, operators, CSAs, and commuter rail conductors, includes:

- Informal gatherings at area garages where employees speak with FMCB Director Tibbits-Nutt about concerns, questions, and discuss issues that matter to them. This makes employees feel heard while developing first-hand feedback that can help improve customers' experience;
- In these discussions, some operators indicated a desire to change current uniforms to provide greater comfort and seasonal versatility. This issue is now being considered with MBTA operations;
- Bus and train operators use break areas during split shifts to rest, eat, stay warm in winter, and sometimes rest, depending on how long their off-vehicle time is. The condition of these break areas and their furnishings is in some cases subpar and reasonable improvements are being considered;
- Operators do not have access to computers or email during their workday. Providing them with to receive important information from the Authority as well as news, weather, traffic, alerts, and other information, will help make employees feel included and better informed and able to do their jobs better. Site visits are underway to determine area locations for digital screens and research is being conducted about the best technology and hardware to accomplish this improvement.

A. Overview: Progress, but Challenges Remain

One of the biggest challenges facing the FMCB was to reverse the decades-long trend of growing operating budget deficits at the MBTA and to balance the operating budget "primarily through a combination of internal cost controls and increases in own-source revenues," as mandated by the Legislature. With a new financial management team in place at the MBTA, the FMCB can report success toward meeting this fiscal imperative.

The MBTA's FY2017 operating budget totals \$1.95 billion or \$1.5 billion when debt service is excluded. The FY2017 operating budget has been balanced, but still requires some additional assistance from the Commonwealth. The operating budget still faces a structural deficit because MBTA revenues alone continue to be insufficient to cover operating costs, even with the recent fare increase. The T has been able to narrow the structural deficit which, without action, was on track to reach \$242 million in FY2017 and \$427 million by FY2020. The approved FY2017 budget anticipated a structural deficit of \$80.3 million; serious challenges face the T as it moves toward the mandate of balancing its operating budget.

1. Closing the Structural Deficit in the Operating Budget: Down 50 Percent

The original MBTA operating budget for FY2016 forecast a structural deficit of \$170 million. The actual FY2016 structural deficit of \$85.9 million marks a decrease of 49 percent compared to the original forecast. The improvement was due mainly to almost \$65 million in internal cost controls and nearly \$11 million in greater-than-budgeted revenues, mainly from own-source revenues. Also contributing were \$8.4 million in debt service savings.



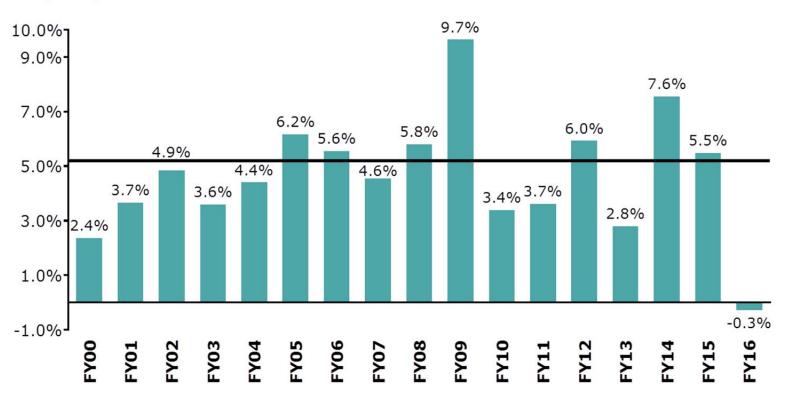
FY16 Budget to Actual Structural Deficit (Not Including Additional Assistance)

Source: MBTA Internal Data. Analysis above excludes revenue from monthly FY16 Additional Assistance payments

The MBTA's annual growth rate in operating expenses was the lowest it has been in at least 15 years and actually declined in FY2016 compared to FY2015, falling by a year-to-year -0.3 percent. This is in sharp contrast to the approximately 5 percent annual rate of operating expense growth the T experienced between FY2000 and FY2015.

FY16 MBTA Expense Growth – Slowest in 15 Years

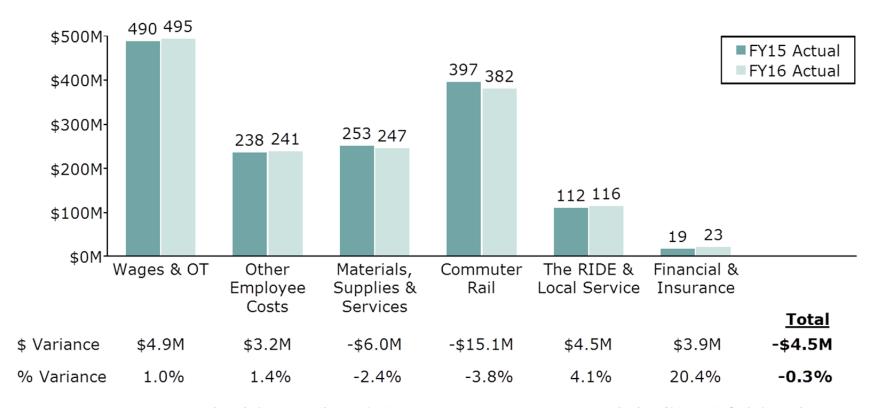
Annual operating expense growth rate (excluding debt)



Note: Energy costs were \$10.2M lower compared to prior year; excluding lower energy costs, Opex growth would have been 0.4% for FY16 Source: MBTA Internal Data

Significant operating budget savings in FY2016 came from reductions in overtime as well as savings from renegotiating contracts for services, utilities and office supplies. Total wage and benefit expense increased by 1 percent compared to FY2015, while material and services decreased by 2.4 percent.

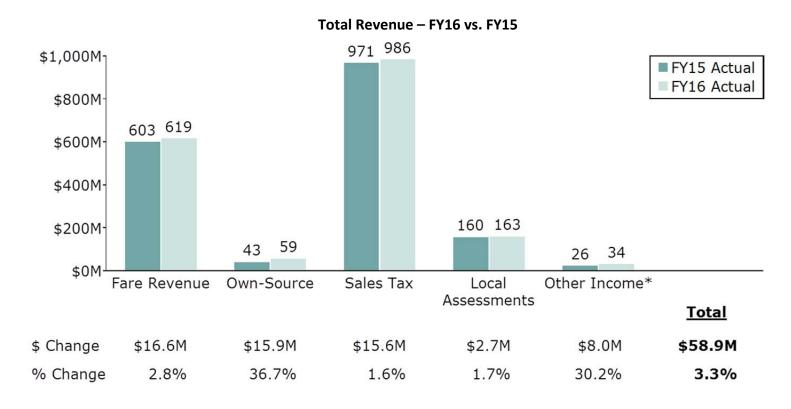




Note: Lower energy costs contributed -\$10.1M to the net \$4.5M operating expense variance against budget (\$2.1M CR fuel; \$1.6M bus fuel; \$6.4M power/utilities).

Source: MBTA Internal Data

Revenues in FY2016 increased by \$59 million, representing an overall 3 percent increase compared to FY2015. Non-fare own-source revenue increased by \$16 million, and is up 37 percent year-over-year. Revenue growth from fares, local assessments and other income was generally consistent with expectations.



*GLX Mitigation income from Mass DOT Source: MBTA Internal Data

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2. FY2017 and Beyond: Continued Focus on Cost Containment, Own-Source Revenue, and Operating Budget Accountability

The process that began last year and is still underway to better control internal costs and increase own-source revenues has greatly improved the fiscal outlook. The following steps are either completed or well in process:

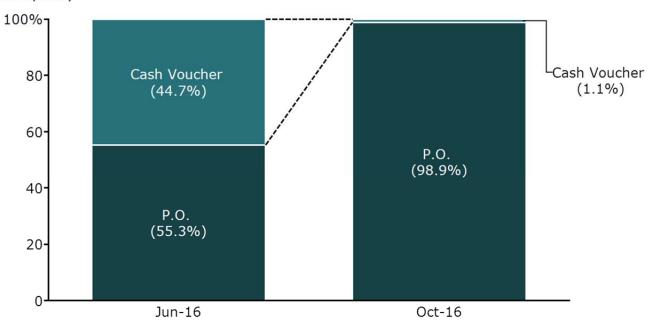
- Increase own-source revenues from advertising, real estate, and parking;
- Continue to hold managers accountable for achieving financial targets;
- Continue to operate transparently, sharing as much financial and operating metrics data as possible with the public;
- Maintain progress on policies to reduce overtime and absenteeism;
- Seek further opportunities to restructure and refinance MBTA debt;
- Review and enforce terms of existing service contracts, renegotiating or re-bidding them as appropriate; leverage statewide contracts for further savings;
- Continue to explore opportunities with industry partners to provide better service or lower costs, such as new operating models for The RIDE.

To maintain the focus on cost control, senior T leadership meets regularly with MBTA department heads, holding them fiscally responsible for their budgets. One significant improvement has been the use of a purchase order system to manage purchasing at the MBTA. In the past, the Authority mainly used cash vouchers, drawn on the operating budget, to make purchases. Under the current policy, expenses must be approved and justified in advance. This new system helps departments better manage purchases, accelerates accountability, and trims unnecessary and unapproved spending.

In just four months, this purchase order policy has nearly eliminated the practice of paying for goods and services via cash vouchers.

New Purchase Order Policy has Nearly Eliminated the Use of Cash Vouchers





Source: MBTA Internal Data

Despite the progress that has been made, balancing the T's operating budget faces headwinds. While the MBTA is guaranteed a minimum of \$992 million a year in sales tax revenues (officially known as the Base Revenue Amount), the FY2017 budget had assumed that sales tax receipts would generate an additional \$35 million to the MBTA in FY2017. However, with sales tax receipts down for the Commonwealth, the Authority cannot depend upon its minimum guaranteed payment.

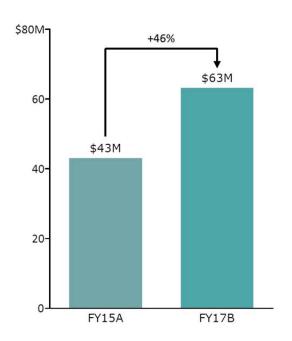
The MBTA has been able to balance its operating budget, as required by the Legislature, only with additional assistance from the Commonwealth. In FY2016, that additional assistance was originally budgeted to be \$187 million. Because of internal cost controls and own-source revenues, the T was able to repurpose \$25 million of that \$187 million from the FY2016 operating budget and into the capital maintenance fund lock box, where these funds are available to pay for immediate capital improvements, such as power and signal upgrades, which will positively impact the customer experience. The FY2017 budget similarly assumes that only a portion of the \$187 million in additional contract assistance will be used to close the structural operating budget deficit, with the remainder to be used to support capital investments.

3. Own-Source Revenues – Other than Fares

That \$187 million in additional state assistance to the T is not guaranteed. Indeed, during this past year, the state swapped \$31 million of that amount, reducing operating assistance while providing an equal amount in bond cap to support capital investments. Both in order to use additional contract assistance for needed state of good repair investments and because the \$187 million is not guaranteed, the Authority should be prepared to balance its budget without some or all of that additional assistance moving forward. That means further internal cost control as well as greater efforts to increase revenues from sources other than fares, namely advertising, parking, and real estate.

In FY2016, the T set aggressive revenue targets for each of those categories and made progress in each. The FMCB believes that the work done in the last year positions the MBTA to meet and exceed its targets going forward. Steps include the hiring of a new Director of Revenue, a move that will help the MBTA develop new revenue opportunities across the system.

MBTA Non-Fare Own-Source Revenue Up 40 percent





Advertising

After a Request for Proposals that drew the interest of several bidders, the MBTA selected a new advertising vendor, Outfront Media. This marked the first time the MBTA changed its advertising contractor since 2005. According to a leading transit consultant, the MBTA is receiving one of the highest known advertising revenue shares of any peer US transit agency, while paying no capital costs to build a state-of-the-art digital display system of 700 screens.



The new contract calls for a revenue share between the vendor and the MBTA that is among the best of any transit agency, with the T receiving 70 percent of gross revenues, up from 63 percent in FY2016. Outfront will deploy 700 digital panels deployed over the first two years of the contract, all at Outfront's sole expense. In addition to advertising, these panels will be able to display customer information, news, and other content along with advertising. Pilot screen installation is set for January 2017, with full installation commencing in March 2017.

Parking

The T is conducting a competitive request for proposals for management of the entire MBTA parking system, which includes more than 44,000 spaces at 100 facilities. The T anticipates the selected vendor to enhance operations, increase revenues, and create a better customer experience. In the meantime, the T has acted aggressively to improve current operations. This includes the hiring of an experienced industry veteran as MBTA Director of Parking, elimination of "honor box" payments, and expansion of mobile payment technology in 2016. The T also plans to invest heavily in the parking system in 2017, including major projects to tackle deferred maintenance at garages and surface lots.

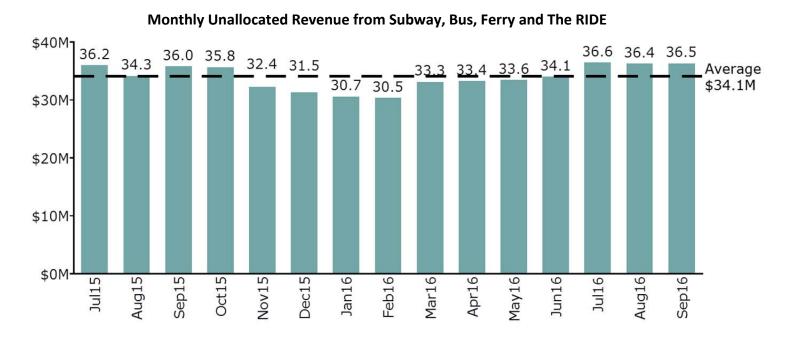
Real Estate

To help accelerate the development program, the T's real estate team brought on two new senior managers with substantial industry experience. New transit-oriented development guidelines are being developed to ensure the T's continued leadership in sponsoring and advocating for smart developments along its transit corridors. Creative new initiatives, including a recently signed solar canopy lease for several of the T's parking facilities, will combine with existing programs to continue to grow revenue.

4. Own-Source Revenues – Fares

The MBTA's fare recovery ratio in FY2016 was 41 percent, higher than the originally budgeted 39 percent due to lower operating expenses and fare revenue that increased from \$603 million in FY2015 to \$619 million in FY2016. In March 2016, the FMCB approved a fare increase averaging just over 9 percent that went into effect on July 1, 2016. Increases varied by mode and ride, and in one instance, single bus rides paid with cash or CharlieTicket, fares fell from \$2.10 to \$2.

For the first three months of FY2017, monthly unallocated fare revenue from subway, bus, ferry, and The RIDE rose by 2.9 percent, while commuter rail revenue increased by 9.2 percent.





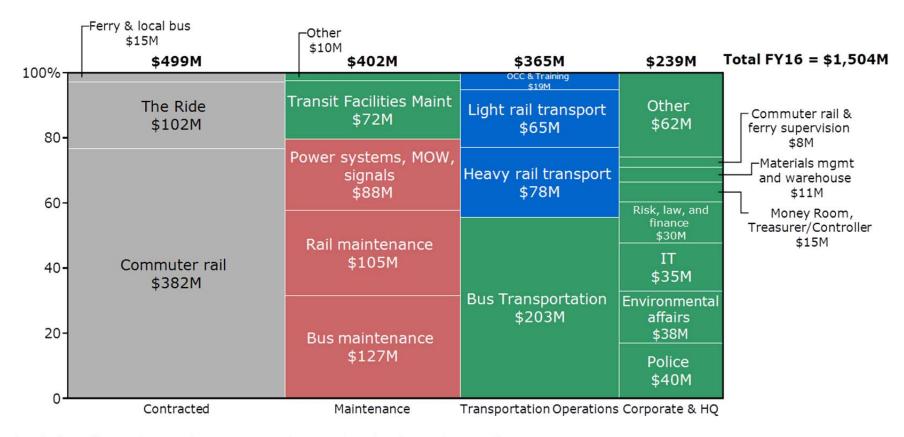


4. Transferring Employees from Capital to Operating Budget

In the past, the MBTA used funds that should have been used to meet capital needs to cover operating budget costs. Pursuant to the findings of the Governor's Special Panel on the MBTA in 2015, the MBTA identified 532 employees to transfer from the capital to the operating budget. That transfer was supposed to occur over four years in three phases but the T has acted more aggressively. Transfer of the final 220 employees from capital to operating will be completed by the end of FY2019. The fully loaded budgetary cost of these final 220 employees is about \$25.9 million.

5. Major Vendor Contracts

Excluding debt service, the largest single component of MBTA operating expenses is contracts to private vendors. Contracts for The RIDE commuter rail, the ferry and certain bus routes total \$499 million, which represents nearly one-third of the MBTA's total \$1.5 billion operating budget (excluding debt service).



*Includes allocated cost of Everett: Bus (\$19.6M) and Subway (\$32.2M)

Note: Includes allocation of fringe

As discussed in the contracts section of this report, the T is more carefully and consistently procuring and managing contracts for goods and services. The Authority's largest single contract – commuter rail services provided by Keolis Commuter Services – is a case in point.

Keolis Commuter Services

As noted in the Improving Customer Service section above, while commuter rail service shows improvement since the winter of 2015, overall commuter rail performance has declined over the last quarter of 2016. Much of this overall decline was driven by poor on-time performance (OTP) on a few lines, especially the Worcester, Fitchburg and Franklin lines, which had OTPs of 61 percent, 68 percent and 74 percent respectively. Keolis continues to incur substantial fines for failing to meet contractual standards. The MBTA has fined Keolis \$6.3 million and \$6.6 million in the past two fiscal years, including \$886,000 in fines for substandard performance in February and March of 2015.

Recognizing the need to improve its service, Keolis officials have met with the FMCB and MBTA staff to identify a series of corrective actions. For example, Keolis has established the Worcester Line Rapid Action Group, a cross-functional team of transportation, engineering, mechanical, customer satisfaction and performance improvement personnel who are charged with recommending and implementing improvements. At a first session on November 7, 2016, the group identified 28 areas of opportunity and 11 immediate actions, such as changing the routing of some trains to minimize conflicts.

In order to improve service on all lines, the MBTA used mechanisms in the Keolis contract to add new mechanical performance and equipment availability standards and penalties and to invest in the legacy fleet and added equipment. Under these contract changes, the company will improve locomotive mechanical performance and expand the available locomotive and coach fleet to achieve higher levels of customer service, seat capacity, and the strong on-time performance that passengers expect and deserve.

The FMCB is carefully monitoring these improvements and the overall performance of Keolis, including requiring more frequent reports to the Board from senior Keolis executives.

The RIDE

The MBTA also keeps exploring ways to make its contracted services both more efficient and a better experience for customers. A good example is changes made to the T's paratransit service, The RIDE.

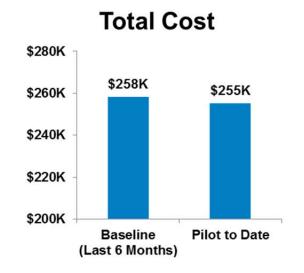
Last year, the FMCB asked MBTA staff to consider alternatives to The RIDE that would reduce costs while not inconveniencing those who depend upon this important service. The challenge was to meet aggressive cost savings goals for FY2017 while still meeting customer needs.

The result was a series of initiatives, including:

- Subsidizing trips on lower-cost alternatives;
- Shifting trips to lower-cost alternatives;
- Reducing overall costs and increasing efficiencies.

In what is the first initiative of its kind, the MBTA established an opt-in pilot program that allowed users of The RIDE to choose to take subsidized trips on Uber or Lyft as an alternative to the T-operated service. RIDE users utilizing on-demand service have paid on average just over \$9 for an on-demand trip in the first months of the pilot. In addition, overall usage of the service has increased.

Two Months of Preliminary Data Show Costs Slightly Decreased with Significantly Higher Usage







Highlights from the pilot include:

- Customers took 24 percent more trips due to improved customer experience and latent demand;
- Costs decreased by 1 percent over baseline due to on-demand trips being 70 percent cheaper;
- Customers must convert at least 1 RIDE trip for every 3 On-Demand trips taken to produce cost savings.

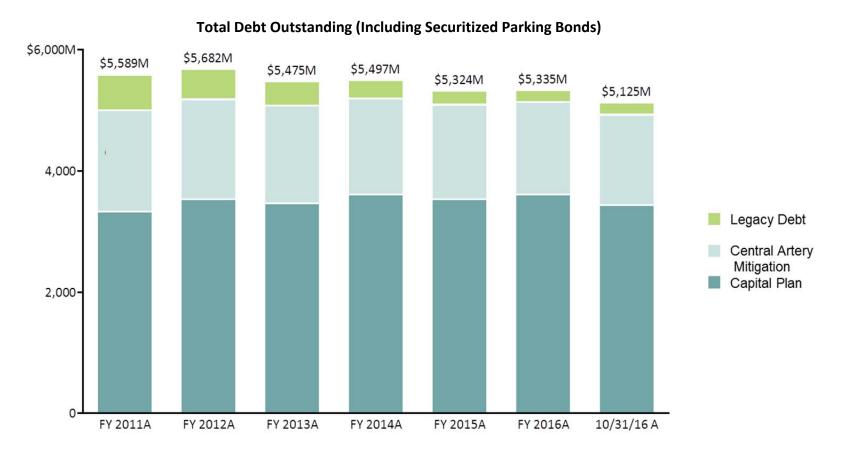
For users, the pilot offers much greater flexibility, since users can obtain Lyft or Uber rides on demand, compared to The RIDE's 24-hour notice requirement. The T is also resuming another pilot program, which subsidizes the cost of riders who use regular taxi service rather than RIDE vehicles.

Though well under the FY2014 budget of \$106 million for The RIDE, FY2017 costs are running ahead of budget. The T is exploring ways to reduce costs during the rest of the fiscal year. As it continues to review possible changes, the MBTA continues to meet regularly with the community-based RIDE Task Force. The Authority's intent is to provide a menu of options to RIDE users, which in turn provide more convenient and less costly options.

6. MBTA Debt

In FY2016, debt service costs of \$444 million represented about 23 percent of total annual operating expenses. While the FMCB can take actions on other components of operating costs, the MBTA is contractually obligated to make these debt payments.

The MBTA's fiscal challenges are exacerbated by the Authority's debt service, with a major operating cost burden from annual debt service on the Authority's total long-term debt of more than \$5 billion.



The MBTA can, however, take actions to reduce debt service costs associated with outstanding debt and did so over the past year. The MBTA executed a complete debt strategy that involved both a termination of five interest rate swaps in May and a refinancing of all available fixed rate debt as well as low short-term interest rates that well below the swapped rates the T originally took on. As a result, the MBTA will see \$260 million in future cash flow savings.

In the first quarter of FY2017, debt service costs were \$7 million, or 6 percent, less than budget.

7. Five-year Operating Budget

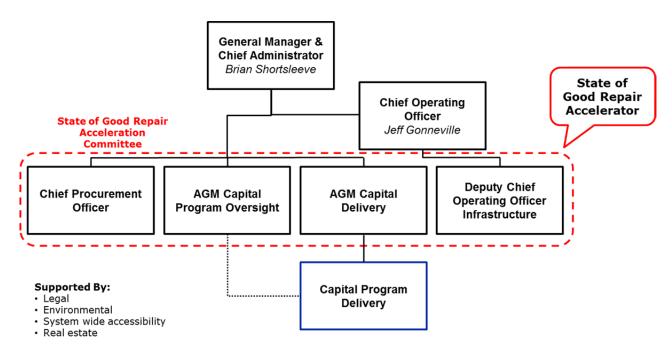
The Legislature requires this Board to produce a five-year operating budget *pro forma*. That work is in progress and will be completed after the MBTA closes out its first-half FY2017 financials (covering July to December 2016). During early 2017, the MBTA will provide those first-half financials and the five-year pro forma operating budget. Preliminary data indicate some areas for concern, including lower-than-expected sales tax receipts and higher commuter rail expenses. The approved budget estimated \$1.027 billion in sales tax revenue; the T will instead receive the dedicated minimum sales tax receipts base amount of \$992 million.

	(\$M)	FY17 BUDGET APPROVED 4/11/16	FY17 RECAST 10/4/16	\$	/6/16 BUDGET RECAST
REVENUES	Operating Revenues Non-Operating Revenues	\$722.7 \$1,218.9	\$722.7 \$1,183.9		Sales tax est \$1,027M vs. BRA of \$992M
REV	Total Revenues	\$1,941.6	\$1,906.6	(\$35.0)	
	Wages, Benefits and Payroll Taxes	\$784.2	\$784.2	_	
	Non-Wage	\$779.6	\$790.6	41111	Keolis contract amendments
SES	Operating Expenses Core Operating Expenses	\$1,563.8	\$1,574.8	\$11.0	
EXPENSES	(excludes transferred capital employees)	\$1,515.7	\$1,515.7	-	
	Debt Service	\$458.1	\$458.1	-	
	Total Expenses	\$2,021.9	\$2,032.9	\$11.0	
	Structural Deficit	\$80.3	\$126.3	(\$46.0)	

IV. Capital Investments

As noted at the beginning of this report, one of the FMCB's top priorities is to accelerate the delivery of MBTA capital projects, especially state of good repair (SGR) investments that increase system performance and reliability in ways that improve the customers' experience. The MBTA needs to make smart decisions about what projects it funds and it must also be sure that it efficiently delivers and manages those projects. To ensure that better capital delivery is a top-to-bottom priority, the MBTA has undertaken a strategic reorganization of its capital investment delivery operation so that all parts of the Authority, from budget and operations to legal and procurement, are aligned toward this goal.

The MBTA has embarked on a very aggressive Capital Investment Plan to invest more than \$6 billion in funds over the next five years, much of it on SGR repair and reliability-improvement projects that will significantly improve system reliability. To better implement this plan – and to dramatically increase the speed and efficiency with which the T designs and executes capital programs across all modes – the T has put in new leadership and restructured its capital program and delivery operation. A State of Good Repair Acceleration Committee will help to ensure that work is coordinated among different functions within the overall capital delivery operation.

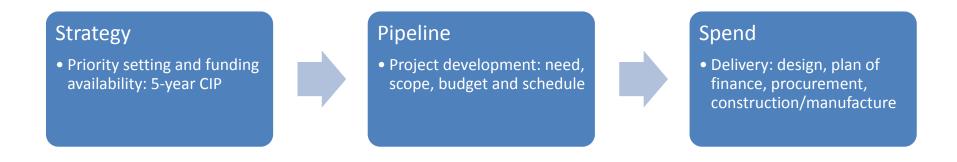


This new team has set some significant targets for the MBTA, including plans to:

- Spend nearly 60 percent more on MBTA state of good repair infrastructure in FY2017 than it did in FY2016;
- Double spending on vehicles in FY2017 compared to FY2016;
- Award \$300 million in SGR construction contracts this fiscal year (excluding vehicles), which more than the total amount of SGR construction contracts is awarded during the last three fiscal years combined.

Capital delivery is vital to MBTA operations, service improvement and MBTA commitment to our customers. The FY2017 to FY2021 CIP is different from previous CIPs, in that it provides an improved focus and alignment on needs and priorities and is underdeveloped in terms of cash flows and deliverability.

Capital spending must more than double to achieve CIP spending levels. The actual spending for FY2012 to FY2016 was \$3 billion, while the scheduled CIP programs amount to \$7.3 billion for FY2017 to FY2021.



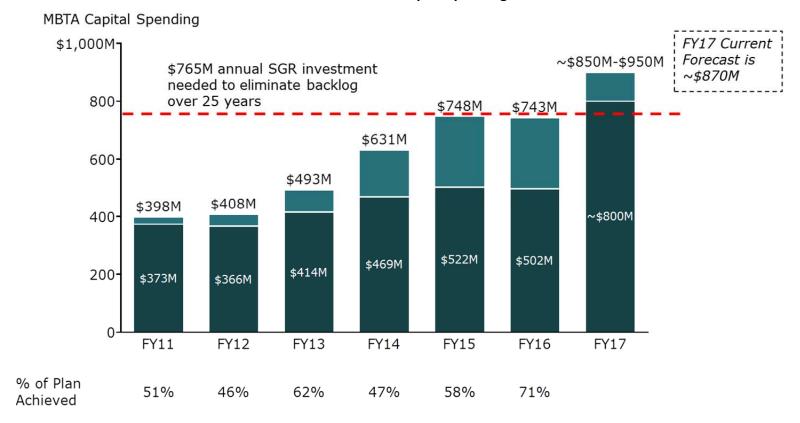
One key element of improving capital delivery is to remove funding and financing bottlenecks so that funding is in place for all projects when needed. Under current policies, a project cannot get underway without funding in place. The T is reviewing all forecasts for FY2017 to make sure that funding is in place. Another critical goal is to reduce the construction procurement process from the current six to nine months to three months.

A. FY2017 Capital Spending

While achieving these goals would mark important progress, getting capital projects out the door in order to increase SGR spending remains a serious problem at the MBTA. Over the last decade, the MBTA has spent less than 70 percent of the money it's had available for capital projects.

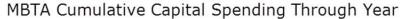
That pace must improve and project development and delivery has been targeted to match the priorities set by the five-year CIP to invest in reliability, modernization and expansion, in that order. The goal for FY 2017 is to deliver between \$850 million and \$950 million this fiscal year.

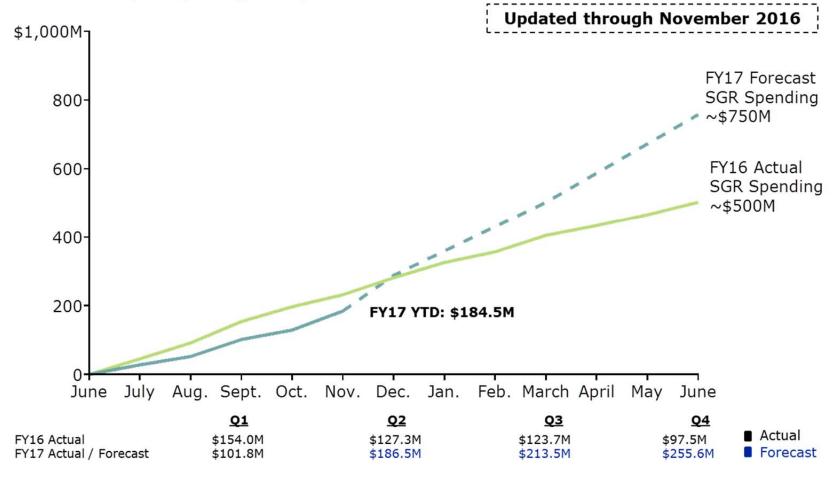
State of Good Repair Spending



To be clear: it will be a challenge to achieve this target. Capital spending for the first four months of FY2017 lagged behind last year's pace and will have to accelerate if this year's capital spending target is to be met. But even if the T falls short of that goal this year, the FMCB is confident that the reforms and new procedures now in place will more fully bear fruit in subsequent years.

FY 2017 SGR (Not Including Expansion Projects) Spending Forecast Compared to Actual FY2016 SGR Spending

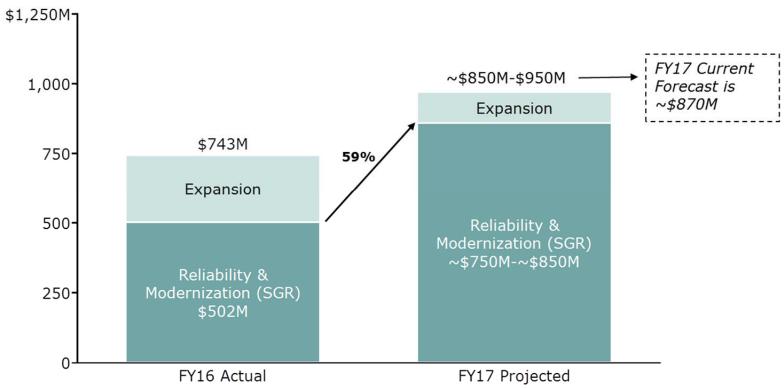




Consistent with the CIP priorities, most of the projected spending is on reliability and modernization (or SGR), rather than expansion projects. Excluding projected expansion projects (mainly GLX), projected spending on core programs is forecast to increase by about 60 percent over FY2016.

FY17 Forecast Spending on Top CIP Priorities (Reliability and Modernization) About 59 Percent Higher Than Prior Year Actual Spending

MBTA Capital Spending

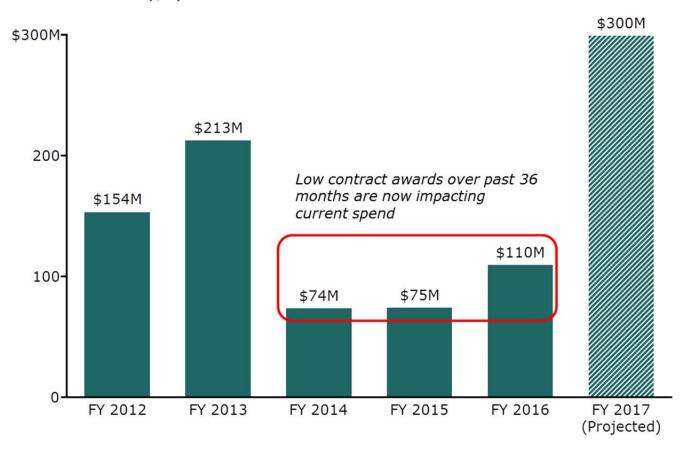


Note: 2017 Expansion projects include: GLX, South Coast Rail, Wachusett Extension, Knowledge Corridor, Chelsea Silver Line, South Station expansion, Blue Hill Ave. Station, and Boston Landing Station.

Just as doing a better job at delivering projects that have already been approved is important, so too is making sure that future projects are put into the pipeline for future work. As shown in the next chart, the T is doing a much better job at keeping that pipeline filled with new ideas that turn into actionable projects. The value of SGR construction contracts awarded in FY2017 is expected to be more than the value of SGR construction contracts awarded over the previous three fiscal years combined.

SGR Construction Contracts Awards FY 2012 – FY 2017 (does not include vehicle or expansion projects)

Dollar Value of Contracts (\$M)



1. Capital Maintenance Fund "Lock Box

Another important initiative of the FMCB was the establishment of a Capital Maintenance "Lock Box," funded largely by savings in the operating budget. Money from this "pay-go" fund is flexible and available immediately for capital projects, such as upgrading T stations and replacing out-of-date signals and switches. The T conducted an organization-wide call for projects that resulted in more than 110 applications totaling more than \$200 million. The selected projects provide the greatest promise to directly and relatively quickly improve the customer experience and are not in the FY2017 CIP.

As with other capital spending, the pace of actually delivering lock box projects needs to accelerate. Of nearly \$80 million in approved Lock Box projects, only about \$5.7 million was spent through the first quarter of the fiscal year. However, the T's capital delivery team expects to spend nearly \$47 million by the end of the fiscal year, including \$31.2 million in additional state assistance that went into the Lock Box rather than the operating budget. That funding will go toward the purchase of additional new Red Line cars that was approved by the FMCB on December 12.

B. Analyzing Proposals for System Expansion and Capacity

Since last year's FMCB Annual Report, MassDOT and the MBTA have taken important steps involving the proposed Green Line Extension (GLX) and South Coast Rail projects.

1. Green Line Extension

After major cost overruns and other issues required a fresh examination, the FMCB and MBTA have undertaken a series of steps to right-size the GLX project. The process included assembling an Interim Project Management Team of MassDOT/MBTA staff and experienced contractors to completely rework the project, including design, schedule, budget, and procurement/construction methodology.

A revised estimated program budget of \$2.3 billion was set, down from the \$3 billion anticipated when the project was halted in August 2015. The Project Management Team has worked closely with the Federal Transit Administration to protect federal funding for the project and to secure preliminary approval for the revised GLX program (with additional FTA work still to be done). The T has partnered with the Boston Region Metropolitan Planning Organization and the cities of Somerville and Cambridge to gain commitments for financial contributions:

- \$152 million in federal funds from the Boston Region MPO;
- \$50 million from the City of Somerville and;
- \$25 million from the City of Cambridge.

The MBTA has also conducted numerous public and stakeholder meetings to keep the public informed about the status of the project and to solicit input on the revised design. Further moving the project forward, the GLX Project now has a new program management structure and a new Program Director and affiliated staff have been hired. The process for procuring construction services has begun, including issuing a Request for Letters of Interest on October 11 and hosting a well-attended Industry Forum on November 16, 2016. Pursuant to conditions adopted by both the FMCB and MassDOT Board, no design-build contracts will be awarded until the FTA releases the federal New Starts funding.

2. South Coast Rail

In addition to the review and work on GLX, the FMCB and the MassDOT Board reviewed the ongoing South Coast Rail project and requested that staff consider a new option for the project. Passed over in earlier analyses, the existing MBTA Middleborough Line would provide an option for short-term, limited rail service between Boston and the South Coast. While the so-called Middleborough Option brings with it some complications and will require design, environmental permitting, and construction to be ready for passenger service, the FMCB and the MassDOT Board instructed staff to pursue analysis of the benefits of the option. Six public hearings were conducted 7to present the option.

With the South Coast Rail Project now returned to the planning phase with this re-assessment of the Middleborough alternative, the FMBC and the MassDOT Board agreed at their joint meeting on November 21, 2016 to transition the funding and the existing consultant contracts from the MBTA to MassDOT. This action aligns program funding with project responsibility and frees the MBTA to focus on the delivery of its State of Good Repair program.

In its work on both the Green Line Extension project and the South Coast Rail project, the FMCB has taken a proactive approach to dealing with pressing problems. Both projects show signs of the same types of challenges – scope, cost, and schedule creep – and the FMCB has sought to 'rein in' the projects by implementing stronger management, scaled-back designs, and a new focus on core functionality. These principles will continue to guide the FMCB in its oversight of large capital expansion projects.

C. Update on Key Projects

1. Positive Train Control (PTC)

Implementation of positive train control technology and associated infrastructure is a federal mandate. PTC is an advanced system designed to automatically stop a train before certain accidents, including train-to-train collisions, can occur. Integrated command, control, communications, and information PTC systems control train movements with safety, security, precision, and efficiency.

The MBTA's \$459 million PTC program will be applied to all MBTA Commuter Rail lines, covering about 394 combined route miles of service. (The MBTA program is being designed to be consistent with the PTC system that already exists on the Northeast Corridor's Providence Line). The PTC program, which is in the design phase, is expected to be implemented by December 2020, assuming the receipt of extensions past December 31, 2018 in compliance with the federal mandate.

2. Upgrading the Core System

The MBTA is making several major investments to upgrade service and reliability in its core system.

The \$1.3 billion Red Line/Orange Line Improvement Program consists primarily of a vehicle procurement of 284 heavy rail cars totaling \$729 million for the Red and Orange lines as well as \$498 million of infrastructure work to support the delivery of the new vehicles.

The vehicles are currently in the design phase, with the Orange Line pilot vehicle delivery scheduled for December 2017 and the Red Line pilot vehicle delivery scheduled for March 2019. Production of these vehicles is set for December 2018 through December 2022. The infrastructure work is primarily in the design phase and consists of the following projects:

- Rehabilitation of the existing Orange Line Test Track and construction of a new Red Line Test Track are required prior to delivery of the pilot vehicle to allow for the testing, acceptance and commissioning of the new vehicles;
- Expansion of Wellington Yard Tracks 33-38 (now in construction) will provide additional storage tracks necessary for the expanded fleet of new Orange Line vehicles;
- Wellington Maintenance Facility, which will expand by one service bay, and Cabot Maintenance Facility will both require extensive renovations and modernization to appropriately service the new vehicles;
- The design of Wellington and Cabot Yards to replace track, power and signal elements is required. The MBTA will then implement a phased approach for the rehabilitation based upon priority areas identified to maintain the current level of vehicle availability;
- Selected Signal System enhancements for both the Red and Orange Lines will need to be completed prior to new vehicle delivery. This work is separate from the larger signal upgrade effort.

In addition to the 132 new Red Line cars included in this \$1.3 billion program, the FMCB voted on December 12, 2016 to approve the purchase of up to 132 additional new Red Line cars. This decision will result in an entirely new fleet of Red Line cars. In addition to boosting Red Line capacity by 50 percent and raising the number of trains per hour from the current 13 to 20, having an entire fleet comprised of the same make and model will also have multiple operational and maintenance benefits.

In a further investment in the core system, the T is investing \$352 million in Red and Orange Line signal upgrades and another \$148 for Green Line signal improvements. While these efforts will yield longer term benefits to riders, the MBTA is also implementing important near-term initiatives to improve headways and to take other steps to improve Red and Orange line capacity.

V. Improving MBTA Operations

Of all the pieces required to transform the MBTA into a premier transit agency, none is as critical as the people who operate and oversee the system every day. Making the system more reliable today and achieving strategic priorities in the future cannot happen without T managers and employees who are motivated, productive, well-trained, and appropriately compensated.

While challenges remain, the FMCB can report improvement in both the productivity of MBTA employees and in making the MBTA's Human Resources department more efficient and effective. New leadership is now positioned to build upon the progress made in the last year, including developing and implementing strategies to attract and retain talent for the MBTA.

A. Improving Workforce Productivity

1. Transforming the Human Resources Department

The assessment of the MBTA's Human Resources (HR) operation and needs which began last year accelerated in recent months as both new leadership and best business processes were put in place to move HR forward. The MBTA's former Human Resources management team almost completely turned over. A new Chief HR Officer and Deputy Director began work in August 2016. Over the next few months, other key members of the HR team were added, including a Second Deputy Director of HR, a Manager of Staffing, a Manager of Benefits, a Manager of Organizational Analysis and HR-CRM, a Manager of Compensation and an Acting Manager of ADA and Leaves.

2. Filling Vacancies, Reducing Time to Hire and Critical Talent Hires

Last year's annual report cited the need for the MBTA to accelerate hiring processes. Just over a year ago, the MBTA's "time to hire" ranged from 108 to 284 days for the T's four largest hiring methods. The FMCB called upon the MBTA to reduce that time to hire to about 100 days. As shown below, the Authority has exceeded that target; over the first three quarters of calendar 2016, the time to hire fell by more than 50 percent; 425 employees were hired, with an average time to hire of about 64 days.

Number of New Hires

- Over 420 employees hired year-to-date (*hires out of PeopleSoft)
- Of these, 142 designated as priority hires
- 767 employees hired in 2015 (*hires out of NeoGov)

Time to Hire

- CY16 Q1: 132 hires in an average of 51.3 days
- CY16 Q2: 141 hired in an average of 64 days
- CY16 Q3: 152 hired in an average of 76.2 days
- CY 16 Weighted Average of 64.4 days
- CY 15: 767 hired in an average of 137.5 days

^{*}PeopleSoft is the MBTA's system of record, not NeoGov. In 2015, the number of hires was pulled from NeoGov. In 2016 and moving forward, the number of hires is pulled from PeopleSoft. NeoGov contained Interns, Re-Hires, Promotions, Transfers, etc.

3. Absenteeism and Overtime Management

Further progress has been made toward improving the MBTA's management of employee absences, particularly unscheduled absences, which can result in dropped trips that inconvenience customers as well as higher operating expenses due to overtime.

New attendance policies went into effect on January 1, 2016 to, among other things:

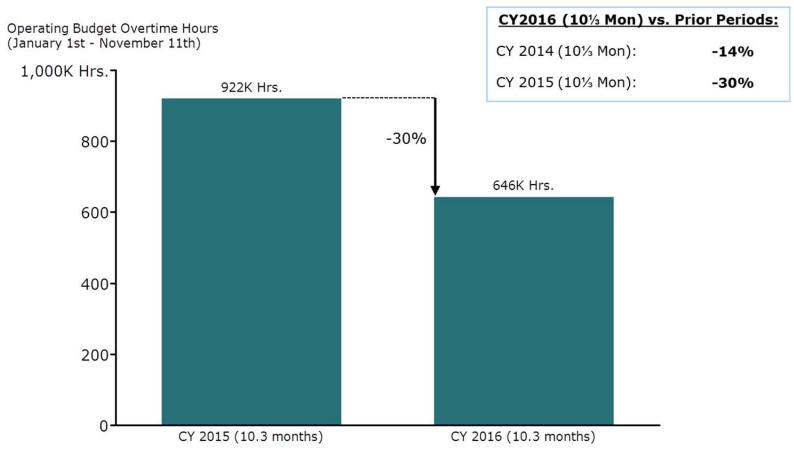
- Require employees to adhere to MBTA call-in procedures;
- Identify Pattern Absenteeism and FMLA absences in excess of approved frequency and duration;
- Run leaves concurrently and recertify FMLA status, where appropriate;
- Use official US Department of Labor Forms for FMLA Administration;
- Fully review medical certifications for validity, and seek second opinions, where appropriate.

On September 1, 2016, the MBTA also launched a pilot program to utilize a third-party administrator (TPA) call center for leave management. Early results of the pilot have been positive. The T will continue to monitor both this pilot and broader efforts to reduce absenteeism, which will help to improve system reliability. Achieving further reductions in the rate of operator absenteeism remains a significant challenge and ongoing focus of T management.

As noted in last year's report, another key problem at the MBTA had been the excessive use of overtime, with insufficient controls. New overtime policies implemented in September 2016 have helped to significantly reduce overtime, helping to lower operating expenses. Among other things, overtime policies now place a cap on both daily and weekly overtime and prohibit consecutive 16-hour work days in a week. All operations department managers receive weekly and monthly overtime reports.

For the first 10 months of calendar year 2016 (1/1/16 to 11/11/16), overtime hours were down by 30 percent over the same period in 2015.

Overtime Management:
Operating Budget OT Hours down considerably in 10 months of CY16 compared to both CY15 and CY14



Source: Internal MBTA data

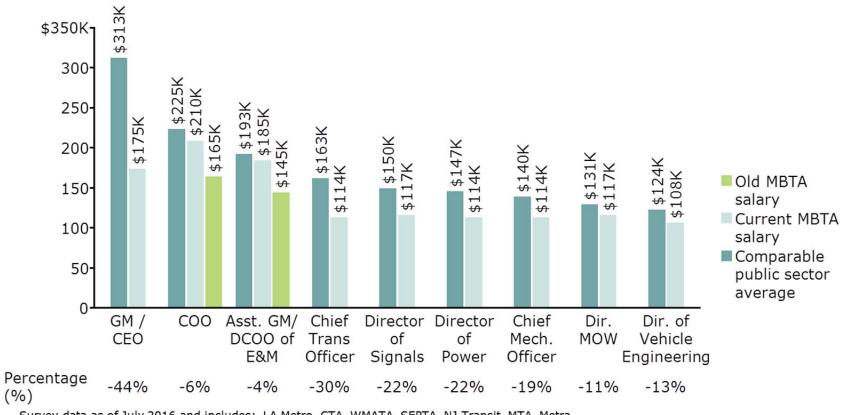
4. Attracting and Retaining Talent

The T needs to hire qualified people, but it must also build upon and expand the pool of talent already working for the Authority. To that end, the MBTA is taking a disciplined approach to Talent Management and Succession Planning to ensure that a pipeline of "Ready Now" talent is available. That involves creating a culture of learning and development to help future leaders grow within the organization.

This also involves being able to offer competitive salaries to attract the caliber of people the T needs. Analyses conducted for the FMCB find that the T consistently pays below market for key leadership and non-union executive roles. This leads to good internal people leaving and undermines the Authority's capacity to attract, hire, and retain next generation leaders. The FMCB is keenly aware that the T faces a challenging fiscal environment, but the T's own recent experience shows what can happen when the T undercuts itself on management salaries in order to save a relatively small amount of money. The result has often been long delays and cost overruns in the billions of dollars.

MBTA Salaries Average Nearly 25 Percent Below Comparable Agencies in Key Transit Positions

Salaries



Survey data as of July 2016 and includes: LA Metro, CTA, WMATA, SEPTA, NJ Transit, MTA, Metra.

The T conducted a review of the non-union executive staff to determine parity and under compensation gaps. As shown above, the T used the results of that review to offer higher compensation to retain key individuals. Though necessary, such moves could have an unintended but negative impact on other employees who are potentially paid less than newly hired peers, presenting a talent retention challenge. Going forward, such decisions will need to be dealt with on a strategic basis.

V. Improving MBTA Operations

As the MBTA continues forward, it needs to establish a compensation structure to attract and retain leadership talent to sustain and continue to deliver the transformation agenda. To address this talent challenge the following approach will be taken:

Phase 1: Internal Talent Parity

- Understand how we are currently compensating our leaders (Complete).
- Identify high compensation adjustments for both existing staff and new hires (complete).

Phase 2: Benchmark/Align Compensation to Market

- Issue an RFP to research compensation at comparable transit organizations (complete).
- Identify potential adjustments for specific roles (upon completion of Compensation Study).

Phase 3: Talent Management

- Implement a talent management process to identify hi-potential talent and develop plans to invest in them.
- Implement a succession planning process to ensure a pipeline of 'ready now' talent is available.

5. Need to Upgrade Human Resources Technology

Last year's annual report noted the problem of "antiquated human resources technology." The MBTA's current HR technology remains inadequate not only for the department's internal processes, but for MBTA employees. The MBTA's current software (PeopleSoft 8.9) is two versions behind and is no longer supported by the software vendor.

The MBTA and the Commonwealth have entered into a partnership to align human resources/payroll processes and systems which will:

- Facilitate transactional to strategic transition of human resources and payroll processes;
- Increase efficiency and accuracy for benefits processing and administration (e.g., automated integration with GIC);
- Accelerate implementation timeline compared to other options.

Employees will have access to "Self-Service" upon implementation to:

- Simplify benefits enrollment and administration (real-time);
- Eliminate paper timecards and allow online approval by supervisor;
- Provide online access to leave accruals and pay advice (any time and any place).

Another improvement is the MBTA's adoption of new HASTUS software modules, which will yield much more efficient route scheduling, time keeping, daily operations, and will update how operators select work shifts.

6. Payroll Reduction Program

With the MBTA facing serious financial challenges, the T set a goal to save \$25 million in wage costs -- the equivalent of 300 positions -- on an annual basis through voluntary incentive programs. Achieving this goal is a critical step in realigning the T's organization with its current budget reality.

The Voluntary Retirement Incentive Program and Voluntary Separation Incentive Program (VRIP and VSIP) were designed to ensure continuity of service and safety and to meet the fiscal and operational objectives of the MBTA with minimal impact on T employees. The result is about \$14 million in savings. A total of 174 positions have been eliminated through VRIP and VSIP. The MBTA will need to achieve the full 300 head count reduction during the remainder of FY2017 in order to meet the budget.

B. Internal Reorganization

The FMCB and the MBTA Management have focused on attracting new talent with high-level skill sets to help drive the transformation of the Authority. With new leadership in place and operations realigned, the T is now better able to coordinate operations across divisions and functions and to more systemically move the system forward. While new positions were created in some instances, most of the positions below were filled with new leadership:

Human Resources

- Chief, HR Office
- Deputy Director of HR (Workforce)
- Manager of Benefits
- Manager of Compensation
- Manager of Staffing
- Deputy Director of HR (Project Management)
- Manager of Organizational Analysis and CRM
- Manager of ADA and Leaves
- Director of Labor Relations

Real Estate

Chief of Real Estate

Procurement

- Deputy Dir of 3PL Ops
- Deputy Chief Procurement Officer
- Director of Warehouse and Logistics

Capital Delivery

- AGM Capital Program Oversight
- AGM Capital Delivery

Operations

- Deputy Director of Power
- Director of Transit Facilities Maintenance
- Director of Power Systems Maintenance
- Deputy Chief Operating Officer

CFO Office & Treasury

- CFO
- Director, Treasury Services
- Director of Financial Analysis and Planning
- Deputy Director of Financial Strategy
- Deputy Director, Policy and Analysis
- Director, Vendor Management

IT

- Chief Tech Officer
- Deputy Director, IT Risk Management

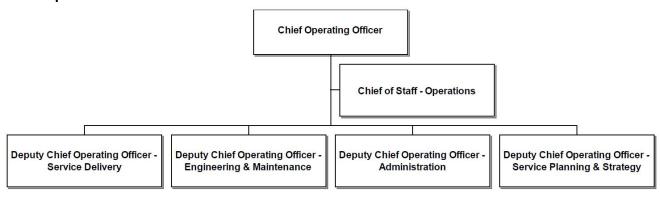
Own-Source Revenue

Director of Parking

1. Reorganizing MBTA Operations

One of the T's most critically important divisions, Operations, has been reorganized in the last year to be more streamlined and accountable. The reorganization includes all departments that fall under the direction of the Chief Operating Officer whose office now has four primary divisions: Service Performance; Engineering and Maintenance; Administration; and Service Planning and Strategy.

Reorganization of MBTA Operations



The overriding goal of the reorganization is to improve service performance and enhance the customer experience. The new structure will also expose more employees to more disciplines within the Authority. With more well-rounded operations managers, the Authority will be better positioned to offer an enhanced service and will have a more qualified pool of employees to backfill critical management positions. With greater skill sets, employees will also be able to see the "big picture" more readily, leaving the MBTA as a whole better prepared to adapt to any challenges the future holds.

In addition to improving accountability, the proposed reorganization also helps build for the future by providing a structure that supports succession planning. To begin, there will be greater exposure between multiple disciplines. This will enhance the understanding that each employee in each area possesses of the responsibilities of their colleagues and of the overall interdependence of disciplines across the Authority. Preparing staff to advance to senior management positions will be critical to the future success of Operations due to the number of retirements possible within these ranks in the next three years, which makes it critical that the Authority begin exposing its managers to the organizational knowledge that has the potential to leave in the near future.

2. Improving Procurement and Contracting

Last year, the FMCB discussed efforts toward "centralizing authority procurement and contracting, implementing best procurement and contracting practices." This year, the Board can report significantly more progress in how the MBTA procures goods and services as well as how these contracts with hundreds of public and private sector partners are managed and enforced.

Areas of improvement include:

- Establishing a more strategic approach to contracting, including new leadership and efforts to better train and coach MBTA procurement and logistics staff;
- Reviewing and improving enforcement of existing vendor contracts;
- Streamlining and strengthening procurement processes;
- Appropriately utilizing flexible contracting authority.

More Strategic Approach to Contracting

To provide nearly 1.3 million trips per day to the Boston region, the MBTA works with an array of partners to support operations, including human resources, financial management, procurement, information technology and communications, marketing and advertising, and real estate management. Several of these functions are managed through long-standing relationships with third-party private vendors whose focused industry expertise supports better and more efficient operations. In some cases, including commuter rail, The RIDE, ferries and several bus routes, service delivery itself is contracted out. All Regional Transit Authorities contract out their bus operations and most outsource maintenance.

Overall, the MBTA has in the last year continued to shift its procurement practices and systems toward more strategic sourcing, supported by data-driven analytics, better understanding the T's internal unit costs and outreach to industry, ensuring solid competition and encouraging innovation. This work also requires improving internal business processes to ensure that the terms of negotiated contracts are met. The MBTA has drawn upon experts to help it review its contract procurement and management systems, and operations to improve the MBTA's capacity to not only identify goods and services for which it needs to contract, but to be sure it was contracting for what it truly needs at the best value possible. This contract review process, which had the shared goals of improving performance and controlling costs, considered four approaches to existing contracts:

Contract Oversight Examples - In Process Re-Negotiate **Bid-Out** Re-Bid **Enforce Contract Terms Contract Terms** • Financial Advisor Advertising Money Room Cleaning Contracts • Ride Call Center Wireless • TPA for Leave Massport/Silver Management • Office Supplies • Fixed-Rate Debt Line • AFC 2.0 • Commuter Rail Parking Station Tenants • Warehouse Diesel Fuel • GLX • Call Center

To implement its improved contract and procurement policies and practices, the T has also created five sourcing executive positions in fleet, electronic ordering, and revenue operations. Two more sourcing executives will be in place by early next year. The T has also established an eSourcing organization, which is redesigning procurement processes to leverage electronic and Internet-based resources. This is simplifying the acquisition of critical goods and services, shortening the buying process and reducing errors. eSourcing also dramatically reduces paperwork and improves accountability and transparency, enhancing management's ability to monitor and improve performance.

Review and Enforce Contract Terms

As noted in last year's annual report, the T has at times in the past failed to consistently monitor and enforce contracts, including major ones. The MBTA is conducting an authority-wide review to identify opportunities to increase revenues and reduce operating costs. The review found instances where previous contracts with private vendors were not properly designed or managed. While maintenance of the MBTA's elevators and escalators has been out-sourced to private companies for decades, for example, the performance contract with KONE, Inc. enabled the T to implement improvements that have enhanced escalator and elevator safety, which means less inconvenience to customers due to downtime for maintenance. System-wide elevator performance has steadily improved and now stands at about 99 percent. And these gains were achieved without increasing costs for the contract, for which a new RFP was due Dec. 13, 2016.

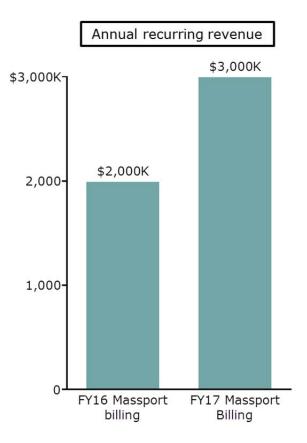
On the other hand, the performance-based contracts for cleaning MBTA stations and facilities illustrate what can happen when the MBTA does not correctly administer performance-based contracting. Under competitively bid contracts awarded in 2013, private cleaning firms were to be paid \$36.5 million over the first three years and abide by performance-based standards. Instead, they were paid \$53.1 million, mainly because the MBTA agreed to pay the contractors based on staffing levels rather than enforcing the contract's performance-based component. As part of extending these contracts into their option years, the MBTA returned to the contract terms as originally written, using the outcome-based standards that are a common method for service contractors in the janitorial industry. Changes in the contract will save the MBTA nearly \$8.1 million over the next two years. Cleaning vendors are now being held to the current high standards so riders will continue to be provided with a clean and comfortable transit system.

Better monitoring of current contracts has already produced significant revenues and cost savings.

In December 2004, for example, the MBTA and Massport executed an agreement for Silver Line service between South Station and Logan International Airport.

Unfortunately, the MBTA did not accurately bill Massport for much of the following decade. A review identified that Massport owed the MBTA \$7.8 million. In August 2016, Massport, which has been a cooperative partner with the T, paid the MBTA \$4.2 million for past services as well as Massport's share of the mid-life overhaul costs for Silver Line buses. The MBTA expects another \$3.6 million, which includes \$1.0 million for FY2016 costs, plus \$2.6 million for overhaul of the remaining five buses. Looking forward, the MBTA expects to receive annual revenue of \$3 million from Massport.

With every dollar counting, even smaller savings from better contract review matters. An example is the T's audit of its wireless device program. That audit identified that 580 devices -- one-third of all wireless devices used by the T, with zero voice or data used for the two previous years. The T eliminated most of these devices and renegotiated its wireless contract, saving the Authority about \$650,000 a year. The T is also revisiting its mobile device policies to prevent future problems and waste.



Streamline and Strengthen Procurement Processes

Several actions have been taken to streamline internal processes. These include:

- Simplifying and standardizing documentation, including enhancing electronic workflow and documentation;
- Aligning MBTA purchases to statewide contracts and using statewide pricing resources whenever feasible;
- Optimizing compliance with state and federal requirements to reduce workload and minimize needless paperwork.

Simplifying and Standardizing Documentation

An example of improved internal processes was the transition, effective July 1, 2016, away from the long-standing practice of paying vendors with cash vouchers. Historically, the majority of spending was done through cash vouchers, which made accountability and management difficult. Shifting to purchase orders will enhance accountability and offer greater transparency about how the T spends money.

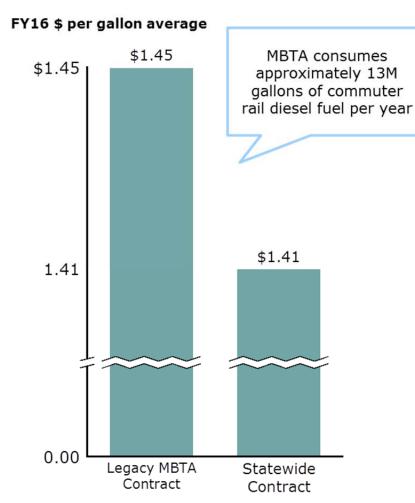
Aligning the MBTA with Statewide Contracts

Last October, the T began the first phase of aligning the MBTA with statewide contracts to achieve efficiencies and cost savings. The process began with the T's implementation of the Commonwealth's regulations for the procurement of commodities or services (801 CMR 21.00). By aligning with the Massachusetts Operational Services Division (OSD) and its CommBuys system, all departments of the T will eventually be able to purchase many standard items directly from statewide contracts, resulting in significant, ongoing savings. Because of the T's large purchasing volume, other entities that use CommBuys, including municipalities and state agencies, will also see savings. Capitalizing on statewide contracts established by OSD brings benefits to the MBTA as well as to agencies and municipalities in the Commonwealth. In some cases, the OSD-established pricing can save money for The T. In other cases, low MBTA-negotiated prices may be extended to OSD's other clients. In both cases, Massachusetts taxpayers save.

For example, the OSD statewide contract for basic stationary products is already producing savings of more than 50 percent on calendars and some other pre-printed items. Spread across hundreds or even thousands of these items annually, the savings can be significant. Also, for spot purchases of simple tools OSD pricing can be much lower.

V. Improving MBTA Operations

Another example is the MBTA's switch for commuter rail diesel fuel to the vendor under the statewide contact. Through this move, the MBTA is projected to save \$450,000 a year.



Commuter Rail Diesel Fuel Commentary

- · \$900K of projected savings through FY18
- State agencies also saved ~\$20K by partnering with MBTA to renegotiate statewide contract
- · Savings generated from:
 - Lower vendor markup
 - Early payment discount
 - New practice of receiving nightly deliveries

Note: Analysis is based on 6 month sampling of historical FY16 ULSD prices according to New York Harbor Platts and Boston OPIS indices.

Complying with State and Federal Requirements

Because it draws on a range of funding sources, the MBTA is subject to panoply of rules, regulations and forms. The CFO's office has worked to improve management and clarify requirements of the different funding sources. To complement these efforts, Procurement and Logistics is revising and simplifying the documentation packages that support procurements. Over many decades, these packages led to redundancy, unnecessary forms, and significant wasted time. As calendar 2016 draws to a close, the Sourcing Executives and Buyers in Procurement and Logistics will have begun using these new, streamlined documentation policies.

C. Provisioning of Services

The legislation that created the FMCB granted the Board a three-year exemption, from July 1, 2015 to July 1, 2018, from the requirements of the Massachusetts General Laws that govern the privatization of services currently provided by public sector employees, commonly known as the Pacheco Law.

The FMCB began to use this contracting flexibility through a careful and deliberative process, identifying areas of the MBTA where private expertise can provide better services and potentially multiple levels of benefits to customers. In instances that could lead to a reduction in the workforce, advance notification has been provided to the existing workforce through an agreement reached with union representatives.

Further detail on MBTA procurement efforts, specifically the use of flexible contracting, are contained in the annual report submitted to the Legislature by the FMCB on August 1, 2016, "Annual Report to the Legislature: Waiver from Provisions of Sections 52-55 of Chapter 7 of Massachusetts General Laws" which can be found at

http://www.mbta.com/uploadedfiles/About the T/Board Meetings/Annual%20Procurement%20Report%20to%20the%20Legislature%20_pdf.

As discussed in that report, the MBTA has utilized the waiver to improve operation of its system.

1. Third Party Administrator

The Governor's Special Panel on the MBTA found that excessive absenteeism was a prominent example of weak MBTA management, resulting in substantial overtime costs and tens of thousands of cancelled bus trips annually. In addition taking a number of corrective actions, such as auditing MBTA employees' use of the federal Family and Medical Leave Act and extensive employee training, the MBTA utilized the ability to outsource for expertise to contract for a Third Party Administrator to further improve management of employee leave and other policies.

2. Cash Collection and Reconciliation

Serious problems with the MBTA's cash collection and counting operations have long been documented, leading the FMCB to retain industry experts to analyze the Authority's cash handling and processing operations.

But when the experts attempted to audit MBTA fare boxes, they reported troubling findings, including:

- Nearly half of the machines tested inaccurately reported cash when automated counting reports were compared with the cash actually in the fare box;
- 23 percent of wireless information transfers were unsuccessful;
- 5 percent of cash boxes didn't transfer information to mobile vaulting units (MVUs);
- 60 percent of information transfers from mobile vaulting units were unsuccessful.

Issues also existed with the fare vending machines, with more than 5,000 transmission errors recorded over a one-year period, resulting in an inability to tie out cash recorded as collected with actual cash received.

In short, the MBTA was unable to reconcile the amounts of cash reported to the amounts deposited. Private sector experts identified immediate risks and vulnerabilities to facilities and employees that led to an intensive security review in cooperation with the MBTA's security department. Immediate actions were taken and management changes were made to secure the money counting facility and the safety of employees. The MBTA released a Request for Proposals on July 22, 2016 to leaders in the business of cash collection to address issues of reconciliation and to identify opportunities for cost savings.

On October 6, 2016, the FMCB voted to contract with Brink's Inc., a leader in the cash handling and logistics industry, to handle the MBTA cash operation. The move will save the MBTA about \$8 million annually in operating costs, as well as about \$1.2 million in avoided capital costs to upgrade the MBTA's Charlestown "money room."

3. Other steps

The MBTA is taking other forward steps to improve performance. Consistent with industry best practices, for example, the MBTA has adopted a process for accepting unsolicited bids for innovative approaches to supporting and providing transit services. This has already led to innovative ideas coming to the T about, for example, proposals to offer late-night service.

The FMCB and management team will also continue to analyze the total savings opportunity that can be realized through leveraging the flexible contracting authority granted by the Legislature to the FMCB. The Board will do this while simultaneously working with management and labor forces to seek significant productivity gains. The Board will share with all stakeholders, including MBTA employees and their unions, proposals to utilize the management tools provided by the Legislature in ways that can help lead to both fiscal stability and improved performance for the people, communities, and regional economy that depend upon a reliable, well-functioning MBTA.

VI. Conclusion: Looking ahead

A. Looking Ahead

This report has focused primarily on progress made in the last year and the immediate challenges ahead, including accelerating the pace of measureable improvements for customers who use the MBTA every day. While the FMCB believes that the foundation has been laid for a much more reliable system, this Board also knows that true progress comes only with long-term commitment, planning, and vision. Organizations fail when they lack a strategic vision, an organizational strategy to meet that vision, measurable targets, and effective senior leaders who collaborate with each other and with riders, employees, and other stakeholders to attain those goals.

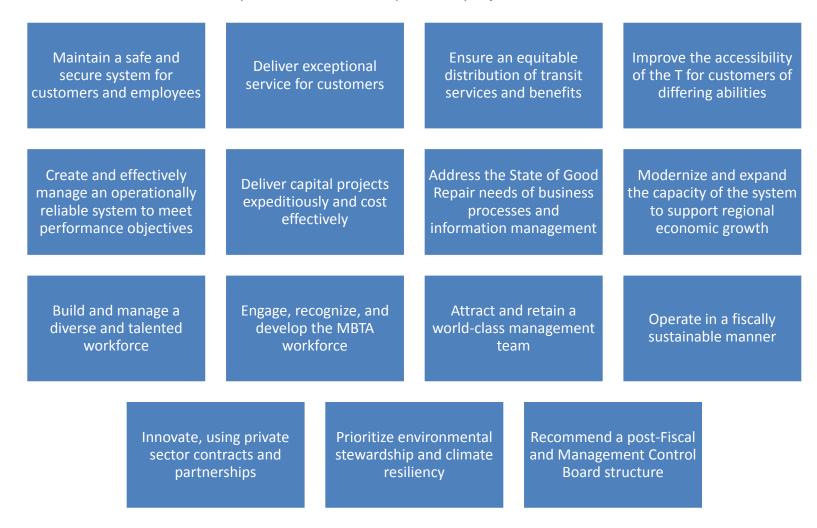
That is why the FMCB and MBTA are engaged in two ongoing, coordinated, future-oriented processes: developing an MBTA Strategic Plan and Focus40. The Strategic Plan will offer a blueprint for rebuilding the MBTA organization, while Focus40 will lay out a long-term plan for re-imagining and rebuilding its infrastructure.

1. MBTA Strategic Plan

The FMCB recognizes that the Authority's staff is challenged with serious daily responsibilities to deliver safe and reliable service. And the staff has embraced a number of important tactical goals resulting in short-term improved resiliency, reliability and cost effectiveness. The Board deeply appreciates this work and dedication. But the MBTA's greatest challenges lie ahead and to meet them the T must develop a comprehensive, sustainable strategic vision and organization. The FMCB's enabling legislation anticipated this need by requiring the Board to formulate and recommend a plan to stabilize and strengthen the finances, management, operations and asset condition of the MBTA (Section 202 of Chapter 46 of the Acts of 2015).

This strategic plan will set down markers to measure the MBTA's performance over time and will help to organize T operations and resources to best position the organization to be able to achieve or exceed those performance targets. Such a plan will not only set goals – it will serve as a vehicle to confirm with T leadership, staff, riders, taxpayers, elected officials and other stakeholders that everyone is on the same page.

The FMCB has embarked upon developing such a strategic plan, built around a simple but overarching mission statement: **The MBTA will** be a world-class transit system committed to providing its customers with reliable, safe, accessible service. Based on internal and external consultations and feedback, the plan will reflect a set of preliminary objectives that includes:



Last October, the FMCB began to actively involve the public with implementing this vision and objectives through three public sessions at which stakeholders and others presented their thoughts and ideas about the MBTA of the future. Those ideas will help shape the plan, which is currently being drafted and will be ready for public review and comment early in 2017.

A great strategic plan should be visionary but it should also explicitly lay down achievable performance markers and a game plan for building the governance, leadership, and organization that can deliver. MBTA customers and others need to know that the MBTA is not only envisioning a future as a world-class transit system – but that it is also crafting an organizational strategy to get there.

2. Focus40

This report has discussed in detail the need for the MBTA to improve and accelerate the delivery and management of capital projects. But with the T's enormous State of Good Repair backlog as well the need for future investment needs, the MBTA and its customers require more than capital planning that covers just one year or even five, in the case of the 2017-2021 Capital Investment Plan.

While the MBTA focuses every day on improving service for today's customer, the evolving and dynamic nature of the region it serves argues for a long-term vision as well. Focus40 is developing a long-term investment strategy that recognizes both today's infrastructure challenges as well as the shifting demographics, changing climate, and evolving technologies that may collectively alter the role the MBTA will play in the Greater Boston of the future.

The primary goal of Focus40, which will fill the statutory requirement that the T establish a long-term capital plan, is to identify current system needs as well as the capital needs projected over the next 25 years, considering SGR and external factors, such as shifting demographics, customer preferences, climate change, and technology. To help identify such needs, Focus40 has held two largescale public events, two stakeholder workshops, and has participated in a range of events held by a broad range of stakeholders – business groups, educators, elected officials, non-profits, and students – to gather investment ideas they believe the MBTA should pursue in the future. Focus40 has also directly engaged with T riders, including direct outreach to customers as they use the system.

More information about Focus40 can be found at https://www.mbtafocus40.com.