



THE MBTA
ADVISORY BOARD

MBTA 2022 Bus Network Redesign

OVERSIGHT REPORT

Approved by the
MBTA Advisory Board
12/13/22

On the recommendation of the
Rapid Transit Committee
12/08/22

177 Tremont Street, 4th Floor,
Boston, Massachusetts 02111

www.mbtaadvisoryboard.org

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The MBTA Advisory Board is a government body organized under Massachusetts General Law to oversee the finances, operations, and activities of the Massachusetts Bay Transportation Authority. The Advisory Board represents the interests of the 176 cities and towns in the MBTA service district. In FY23 these municipalities will contribute over \$183 million in subsidies via municipal assessments.

Contents

EXECUTIVE SUMMARY 1

INTRODUCTION 3

PROCESS OVERVIEW 4

BUS NETWORK REDESIGN OVERVIEW..... 5

INCREASED EXPENSES..... 6

METHOD REVISIONS..... 8

CONCLUSION & RECOMMENDATION 8

EXECUTIVE SUMMARY

Bus Network Redesign (BNRD) is a plan by the MBTA to advance bus transportation in the region. It has evolved significantly since its first draft in May 2022, based on public outreach and municipal feedback. The BNRD team deserves praise for its fluid, aspirational, and equitable design approaches. However, concerns exist about the MBTA's ability to implement this plan and thus realize its potential benefits for the region, specifically around staffing, management, ridership gains, and cost. The MBTA Board of Directors are urged to take the following actions:

- As per the Service Delivery Policy, require staff to return annually to update the Board and the public on BNRD implementation, and seek additional 12-month authorizations based on benchmark achievements.
- The Board should require staff to evaluate expected ridership gains to ensure that state law targets, and internal performance metrics are achieved.
- Require an implementation plan, tied to Bus Transformation, the agency-wide staffing plan, and with capital and operating costs, milestones, and regular check-ins.
- Ensure that the estimated operating costs include adequate expenses for added management and support staff to create a service that can attract net new riders.
- Develop a long-term vision for the bus transportation network that envisions a larger fleet capable of meeting the region's growing needs. Consider a 10%, 20%, 33% and 50% larger fleet and what its affects may be.

Planning for better bus service and the needs of bus riders in an equitable and



feasible manner is critical, but so too is delivering a quality bus service that attracts and retains riders in the short and long terms. Parts of the BNRD process represent a new benchmark for service planning at the MBTA, but more, targeted, and ongoing outreach is needed. BNRD is directionally correct and improving bus service through increased frequency is praiseworthy, but some details are lacking and some proposed changes are potentially harmful. All communities support a bus service that is more equitable, frequent, punctual, and improved for everyone in the region and in their individual communities, but more information on implementation and affordability is needed, and more communication with communities poised to lose service is needed about alternatives.

INTRODUCTION

“Bus network redesigns have been a major trend in public transit over the past several years.”¹

Since Houston’s Metro transit system successfully implemented the first major bus network redesign in 2015, public transportation providers around the United States and abroad have undertaken similar programs. Houston’s experience reconfiguring over 1,000 buses across its network, and the ridership gains it experienced, made such programs tempting to agencies. Agencies in Seattle, Philadelphia, Dallas, Miami, Moscow, Memphis, San Jose, Auckland, San Juan, Los Angeles, New York City (Staten Island, Bronx, Queens), Baltimore, Jacksonville and others have either gone through the process of planning bus network redesigns, are in the midst of such initiatives, or have cancelled the process. For instance, the Queens, New York redesign abandoned its first process, and is currently trying again. Similarly, the BNRD implementation program in Washington, D.C. has been on hold since 2020, and similar initiatives in Los Angeles, Dublin, Ireland; Miami and in other areas are also on hold. BNRD initiatives in Norfolk, Virginia and Adelaide, Australia; were rejected outright.

The MBTA began its BNRD process in 2018, and has gone through a public process to gather information on ways to make its bus network better. Its initial plan was released in May 2022, with a revised plan released in late October 2022. This revised plan can deliver better service for some parts of the region, but it is unclear

¹ National Academies of Sciences, Engineering, and Medicine. 2021. *Redesigning Transit Networks for the New Mobility Future*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26028>



if the MBTA has the resources to deliver such better service.

PROCESS OVERVIEW

Massachusetts General Laws chapter 161a, section 5, part (d) requires the MBTA Advisory Board to review major fare or service changes. Advisory Board staff have determined that the BNRD program constitutes, or may constitute, a major systemwide change, thus triggering this review.

On October 21, 2022, the MBTA Advisory Board's Rapid Transit Committee received a presentation on the revised BNRD program. The purpose of this presentation was to allow the committee to start its work on drafting this report. The MBTA Board of Directors received a presentation on BNRD at its October 27, 2022 meeting, with a request for a provisional vote at its November 17, 2022 meeting, with a full vote scheduled for the Board's December meeting.

In addition to its October 21 meeting, the Rapid Transit Committee also met in public sessions on October 25, November 3, November 10, December 1 and December 8 to discuss the BNRD program, give direction to Advisory Board staff, and draft this report. The full MBTA Advisory Board met on December 1 to receive an additional presentation on BNRD from MBTA staff, and provide a sense of direction to staff and the Rapid Transit Committee. The MBTA Advisory Board met again on December 13, 2022 to consider BNRD, its effect on equity, this report and the Rapid Transit Committee's recommendations. It should be noted that the MBTA's Equity Analysis was not published by the time this report's final draft was

completed, and sent to MBTA Advisory Board members. At its December 13, 2022 meeting, the MBTA Advisory Board, with a quorum present and voting, approved this report, and its transmission to the MBTA Board of Directors by a vote of 28-1-1. It will be presented to the MBTA Board of Directors at its scheduled December 16, 2022 meeting.

BUS NETWORK REDESIGN OVERVIEW

BNRD is a reimagining of the MBTA's bus network. It seeks to reconstitute the MBTA's bus service within the constraints of the existing fleet size, and without additional numbers of bus maintenance/storage facilities. It attempts to create more all-day, equitable and frequent service, 7-days per week, and with a minimum of deviations or changes based on day-of-the-week, or time-of-day. To achieve this frequency corridors are targeted for more service. BNRD has been in the works since at least 2018, and implementation is scheduled for completion in 2027.

The Authority announced its initial set of redesign changes in May 2022. That initial plan added 4% more service on weekdays, 30% more service on Saturdays, and 90% more service on Sundays compared to the bus service then in affect. In total, it represented a 25% increase across the network at the time. Following this announcement, Authority staff embarked on a public outreach process, including meetings with some municipalities, community groups, elected officials, and others. This outreach resulted in 20,000 individual responses and led to substantial changes to the BNRD proposal. The revised BNRD proposal was released in October 2022, and included changes to 85 of the 133 route proposals in the May 2022 draft.

Compared to the May 2022 draft: 29 routes had service restored in part or in whole; 24 routes were changed to provide better access to critical facilities; 8 routes were added; 11 saw frequency or span adjustments; and 6 were dropped altogether in the final proposal compared to the May draft. The Authority presented its final proposal at the October MBTA Board of Director's meeting, and hosted more individual meetings with municipalities and community groups. In addition, it hosted 2 public hearings. It also contracted with the Central Transportation Planning Staff (CTPS) to conduct a federally mandated equity analysis. The MBTA also estimated the annual operating and capital costs unique to this proposal, and briefed multiple elected officials on this topic. Similar to the original proposal, service across the bus network will increase by 25% under the final proposal.

The total set of route changes are too numerous to detail in this format, but are widely available to the public.

INCREASED EXPENSES

Increasing frequency and adding weekend services costs money. While the Authority's fleet size will remain about the same under BNRD, the number of operators and associated personnel will not. While details are not provided, aggregate costs are. Figure 1 below details the projected fare revenue increases and operating expenses based on the implementation plan for BNRD. Net operating costs are projected to increase from \$20.4 million in FY24 to \$118.9 million in FY27. While most of this expense is likely due to the need for 400 additional bus operators to provide the increased frequency and restructured routes called for in BNRD,

hopefully it also includes critical support and management positions as well.

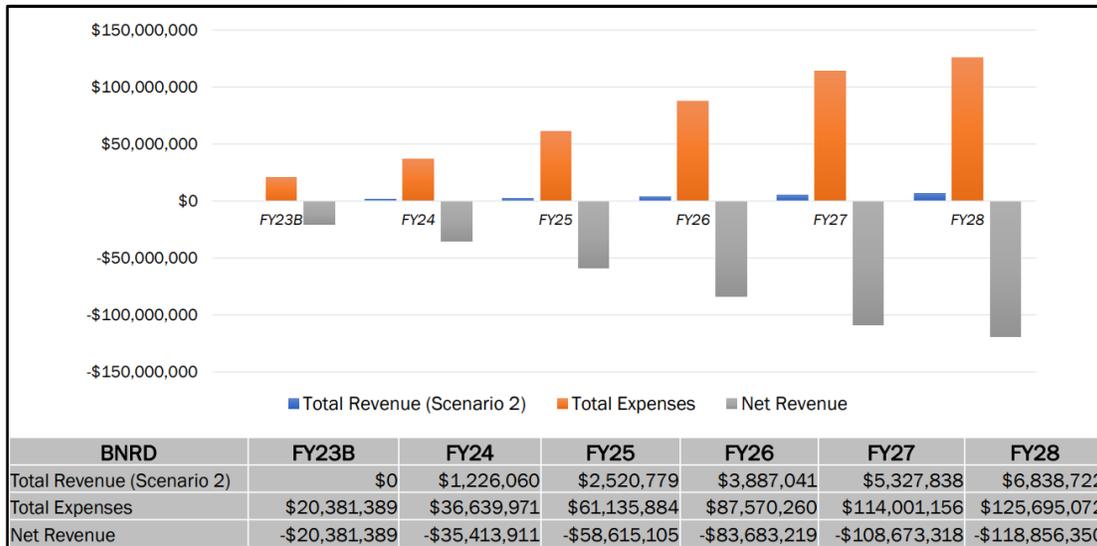


Figure 1: BNRD Estimated Operating Costs (FY23-FY28)²

Well operated, frequent, punctual and reliable bus service that attracts and retains riders requires active, sound management, and active, sound management requires money. Hopefully the increased BNRD operating costs include additional positions such as division chiefs, road control supervisors, instructors, inspectors, supervisors, dispatchers, fuelers, mechanics, forepersons, and other related positions that make quality bus service operate. MBTA bus on-time performance (OTP) has been lacking recently, even when operating a reduced schedule. For instance, bus OTP on Thursday, December 01, 2022 was just 69%, meaning that 31% of all bus trips were late.³ This must improve, regardless of BNRD, but especially if BNRD is implemented fully. Without active management bus bunching, delays, and continued uncertainty are likely to continue, potentially negating any potential improvements promised under BNRD.

² <https://cdn.mbta.com/sites/default/files/2022-10/GM%20Report%20to%20Board%2010.27.2022.pdf>

³ <https://mbtabackontrack.com/performance/#/detail/reliability/2022-12-01////>

METHOD REVISIONS

Some communities have significant concerns that MBTA staff consider the Board of Director's vote on November 17, 2022 as authorization to make all the changes in the BNRD plan without any future consultation. Should this be the case, it will be a major change in the way the Authority works with its member cities and towns, and would represent a major reversion in the method of making bus changes in recent years. When does BNRD stop and the Service Delivery Policy (SDP) begin? How will anyone know? Who authorized the overriding of the SDP, a product of significant advocate and community input, for BNRD? The SDP was updated in 2021. Surely it is not obsolete already? Chapter 4 of the SDP states:

“Once a year, the MBTA will publish a summary report of mode and network performance according to the standards included in the Service Delivery Policy. Included in this report will be an analysis of the “gap” between the level of service that the MBTA is currently providing and the levels of service the MBTA would need to provide to reach the performance targets set in the Service Delivery Policy

Why does BNRD not have a similar annual check-in requirement? Cities and towns suggest that the Board of Director's honor this requirement, and require annual check-ins, and that these check-ins specifically take staffing, cost, performance measure, and other concerns expressed here into account. Does BNRD represent a new methodology of changing bus service?

CONCLUSION & RECOMMENDATION

Bus improvements are needed in the MBTA district. Bus riders are important, and

among the most transit dependent and most transit resilient riders on the system. Bus riders, and all stakeholders deserve an improved, frequent, reliable, equitable and punctual bus system. Bus Network Redesign may be the means to achieve these outcomes, but right now it is not clear how. Simply assuming that improvements in frequency, reliability, equitability, and punctuality will naturally and inherently appear based on the current plan is unrealistic. What is needed is an implementation plan, and one that allows the public and cities and towns to weigh in at regular intervals.

The MBTA is in the midst of a major operator shortfall. At the end of September 2022, the Authority had 350 vacant bus operator positions,⁴ and 400 more bus operators are needed on top of existing vacancies to meet BNRD planned service requirements.⁵ In terms of management, there is real concern that the MBTA cannot manage its current, reduced service levels, let alone the increased ones envisioned in BNRD. Since at least the end of August 2022, the Authority has been operating on a reduced bus schedule (some communities have had reduced bus service since the start of COVID). Still bus OTP still lags pre-COVID levels. If OTP is this poor with less service, how can the public expect it to improve with more service? Finally, the estimated net-operating cost of BNRD is \$20.4 million in FY23, increasing to \$118.9 million by FY28.⁶ The FY24 operating budget deficit is projected at \$200 million⁷ and will increase annually after that. Recently, when

⁴ <https://cdn.mbta.com/sites/default/files/2022-11/HR%20PWDC%20November%202022%20v2.pdf> p.11

⁵ MBTA Bus Network Redesign presentation to MBTA Advisory Board Rapid Transit Committee, 10/21/22

⁶ <https://cdn.mbta.com/sites/default/files/2022-10/GM%20Report%20to%20Board%2010.27.2022.pdf> p. 15

⁷ <https://www.bostonherald.com/2022/09/15/mbta-could-face-421m-budget-deficit-in-2024/>

faced with massive operating budget deficits, the MBTA proposed massive service cuts. In December, 2020 to save an estimated \$38 million in bus operating costs, the MBTA proposed reducing or eliminating service on 32 bus routes out of a total of 169 routes.⁸ While BNRD staff have expressed that the first year of changes will be cost neutral, there is no plan yet in place to cover the costs even by year 5. We cannot make a plan to expand bus service, only to possibly eliminate it due to budget deficits as large as predicted.

Bus Network Redesign, while not perfect, does offer the potential for significant benefits to many, but not all bus riders, and many communities. BNRD represents an aspiration that, if implemented properly, can potentially make the MBTA more equitable. Until the cost, management, and staffing issues are discussed and planned for, however, the work must continue.

All communities support additional transit service that is more equitable, frequent, punctual and better for everyone in the region and in their individual communities. How to achieve this is the question. The process that BNRD has gone through, while not perfect, does represent a good faith effort, in general, to gather feedback and make changes based, in certain cases, on that feedback. There are, however, significant concerns around the Authority's ability to deliver this plan. Not all communities in the Service District support all of this plan, nor the tradeoffs included in it. Many cities and towns are losing significant service community-wide, and some entire neighborhoods are losing service wholesale. What is the

⁸ See "Forging Ahead Review" MBTA Advisory Board, December 4, 2020.



replacement plan for the transit-dependent people in places such as these? At the same time, it is clear that certain new neighborhoods and communities will receive service for the first time. Express route changes and route eliminations, in particular, should be revisited.