



# Massachusetts Bay Metro Asset management Maintenance Best Practice



## Project

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## Client

Massachusetts Bay Transport Authority (MBTA)

## Location

Boston, USA

## Start Date

November 2016

## End Date

December 2017

## Duration

14 months

## Services Provided

Introduction of good asset management fundamentals for maintenance of way

## Background

The Massachusetts Bay Transportation Authority (MBTA) is the public agency responsible for operating most of the public transportation services in Greater Boston, Massachusetts. It is one of two transit agencies in the entire United States that operates all five major public modes including: subway/metro rapid transit, light rail/tram, regional suburban rail, electric trolleybuses and motor bus.

The MBTA has the oldest rail infrastructure in North America. While many of the challenges involve poorly developed or defined processes for workbank prioritization and supply chains, the need to address a significant backlog of deferred maintenance remains the greatest challenge. Underdeveloped staff competency due to retirement of experienced staff and an organizational structure that struggles to support the growth of a skilled workforce are major concerns as well. Ultimately, with ridership on the subway/metro trending up and a comprehensive capital expansion plan underway, the MBTA is addressing internal deficiencies by focusing enhancements on business processes and future asset management for maintenance and renewals.

The MBTA's aspiration is to adopt line-of-sight policies and procedures to improve service reliability, grow an experienced workforce, strengthen organizational capability, and, ultimately, improve the condition of the infrastructure assets to a State of Good Repair.



## Scope of Works

The MBTA has engaged NRC to assist in addressing a wide range of tasks, underpinned by a shared vision of achieving a State of Good Repair for all infrastructure assets.

Working closely with Maintenance of Way (Track) and Asset Management Departments, NRC is advising on design, engineering and maintenance plans that will strengthen overall maintenance and renewals.

## Key Project Outputs

The works comprised:

- ▶ to introduce the fundamentals of good asset management
  - ▶ to develop and introduce tools for managing maintenance work
  - ▶ to strengthen the organisational capability and individual competence to inspect assets, identify defects and emerging work
  - ▶ to develop and introduce tools to assist with the interpretation of engineering surveys and to train Engineers in their use
  - ▶ to develop and introduce tools and processes both for strengthening renewal forecasts and for supporting business planning
- ▶ to support the introduction of new asset management information systems
  - ▶ to strengthen and improve the planning process (for maintenance work / access and for renewals specification and delivery)
  - ▶ to increase the access window to enable critical work to be delivered.

The MBTA considers Network Rail Consulting a true partner and peer railroad as our teams work together to assess current asset conditions and implement improvements to the MBTA's Maintenance of Way and Asset Management programs to achieve a State of Good Repair.