Washington Metro state of good repair maintenance program

Project
WMATA State of Good Repair maintenance program

Client
Washington Area Metropolitan Transit Authority

Location
Washington

Start Date
April 2016

End Date
December 2017

Duration
21 months

Services Provided
Introduction of good asset management fundamentals for work bank optimzation, risk based maintenance, track time allocation and inspection team analysis

Background

The Washington Area Metropolitan Transit Authority (WMATA or Metro) operates the second largest subway/metro rapid transit system (Metrorail) in the United States, sixth largest bus network and fifth largest paratransit service in the United States. The system currently covers over 1,500 square miles and serves approximately 4 million people in the region.

The Metrorail system is a 118-mile network of six lines and 91 stations. It began operations in 1976 and the last leg of the system, one that will link Washington Dulles Airport to downtown, is currently under construction and scheduled to carry its first revenue passengers in 2020.

Metro's greatest challenge is the spiralling deferred maintenance needs of its 40+ year-old asset base that causes daily system failures and major commuter delays. These performance and reliability issues have resulted in a 14 % decline in ridership over the past year. Organizational and operational challenges include the absence of programs and procedures that will address the maintenance backlog and move the system to a State of Good Repair (SGR).

There is also an overarching need to develop and implement access planning that would help prioritize the various elements of achieving SGR, including a comprehensive Asset Management program. Implementing simple best practices would help improve both the overall safety culture as well as increase the productivity and efficiency of the workforce.

Scope of Works

Network Rail Consulting's remit is to deliver tasks that directly support the implementation of best practice principles and is working with Metrorail in three areas.

Key Project Outputs

▶ *Maintenance track time allocation:* NRC reviewed the maintenance windows provided to maintenance teams assessing whether track time is adequate to perform daily maintenance and if the work is efficiently planned and productive.

▶ *Track inspection team analysis:* NRC reviewed the track inspection processes to determine areas of improvement, including sufficient deployment of resources, application of standards, and adherence to an established inspection regime.

▶ *Work bank prioritization:* NRC is currently assisting Metrorail to prepare a work plan that will provide a schedule for working through its current backlog of maintenance projects. NRC is also tasked with developing solutions to address stray current voltage and a testing regime for power cables to assure the integrity of the cable system.

▶ *Risk based maintenance:* Metrorail and NRC have also discussed developing a Risk Based Maintenance program for maintenance of way.

NRC is continuing to partner with Metro to develop solutions to many issues that are currently impacting service quality and organisational efficiency. This is enabling increased service reliability and bringing lost ridership back to WMATA.