Oldcastle Infrastructure
A CRH COMPANY

BALTIMORE MTA RAILWAY PROJECT

Cable Management Solution

Owner
Baltimore MT

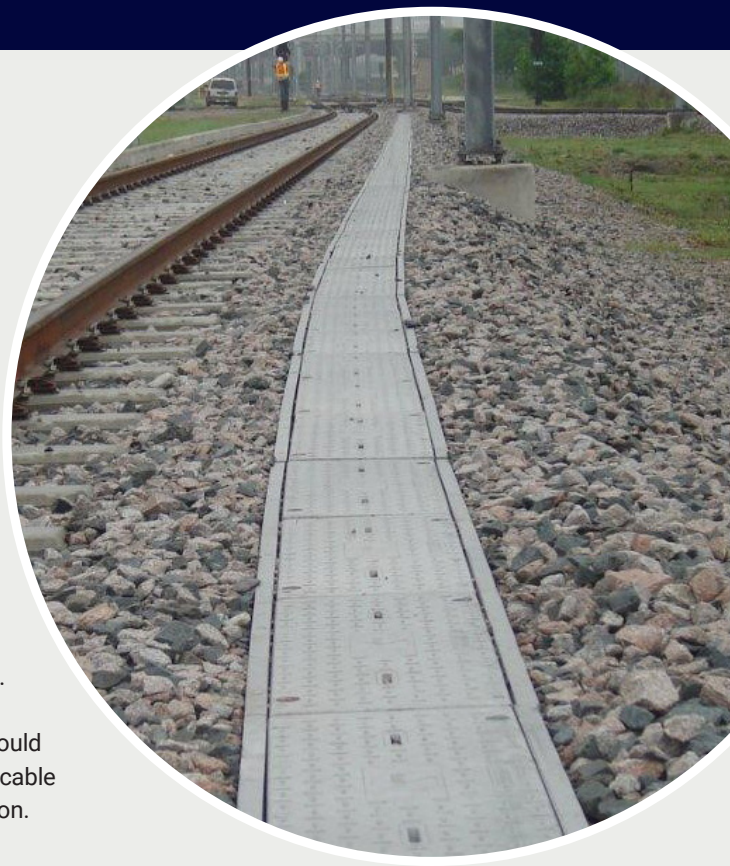
Consulting Engineer
Precision Approach Engineering, Inc.

Featured Products

Plastibeton Cable Trench System

Multiduct Cable Protection Ducting System

STAKKAbox Ultima Connect Modular Vault System



Baltimore MTA was developing a brand-new light rail system to alleviate vehicular traffic and move customers faster through the city. A key factor in the design involved a new solution to contain and protect the many cables that go into a modern transit system, including electrical, communication, signaling and fiberoptic cable. Traditionally, cables were buried in conduits, placed in a duct bank, laid into a cable trench or put up on catenary poles. These existing methods of cable management were costly, time-consuming and highly inefficient. Oldcastle Infrastructure introduced new products and technology that allowed us to provide an innovative solution to the Baltimore MTA that would save considerable time and money on installation. The newer method of cable management also makes maintenance easier following project completion.

CHALLENGE

The challenge in any Rail/Transit/LRT project is determining which design methods are best suited to incorporate into the system based on the site conditions and limitations. Our goal as a major supplier to the market is to understand these conditions and how they relate to the overall conceptual design, and work with the customer to demonstrate the benefits behind those project plans. For the Baltimore MTA, Oldcastle Infrastructure provided an integrated cable management solution by leveraging application engineering expertise and products from across our global enterprise portfolio.

SOLUTION

Our first goal, as always, is to listen to the customer and understand their needs. After reviewing the existing design, we came back with a plan for a complete cable management system. Our deliveries included overall conceptual design, site conditions and long-term needs over the project lifecycle. We provided the technical information around the components and how they fit together into their design.

Key products featured in the overall cable solution include: Plastibeton for cable troughing and protecting vital cables from vehicular traffic, emergency vehicles and maintenance equipment. Multiduct cable protection ducting system replaces traditional concrete encased conduits while providing a faster installation, less space and overall material cost savings. STAKKAbox modular vault system built on-site with lightweight, easily connectable corner pieces and scalable sidewall lengths that configure to the unique project specifications and, depending on the size of the project, can be completely installed in just one day.

One of the advantages of this type of cable management solution is that it is component-based and does not require custom engineering along the way, or the time-consuming process of pouring and drying concrete. It can take 7-10 days for that traditional solution – versus 1-2 days for our innovative solution.

BENEFITS

Overall, our functional cable management solution offered a robust value proposition via a system that is:

- **Safer**
- **Faster**
- **Lower in cost**
- **Easier to maintain**
- **More efficient**
- **Repeatable and scalable**
- **All from a single supplier making it easier to manage**

For the Baltimore MTA, this solution took cable from an underground, inaccessible conduit, to a place where the cable is more accessible and maintainable. No more burying cable underground and having to pull it out to gain access.

This idea of component building a cable management solution is now being used throughout our rail industry and to different degrees so owners like Amtrak and Metro North can benefit. Oldcastle Infrastructure's engineering team is with them for support from day one - right through the entire life cycle of the project.

The Baltimore MTA project transcended geography, federal and local regulations, logistical and technical challenges and competitive pressures. It's one more example of Oldcastle Infrastructure and CRH collaborating in action to get the job done. Rail projects like this one and others can have a 10-year life cycle. It's good to know you can partner with a company like Oldcastle Infrastructure that has the innovative solutions and staying power to be there for you in the long run.