

Cross Charlotte Trail - Brandywine to Tyvola



Location: **Charlotte, NC**

Owner: **City of Charlotte**

Designer: **Kimley Horn**

Installer: **Blythe Development Co**

Challenge

The Cross Charlotte Trail is a 30+ mile trail and greenway facility that stretches from one end of Charlotte to the other, providing bikers and pedestrians a seamless pathway through the city. This project was the last segment of the trail to be completed, a vital connector located underneath Woodlawn Rd.

The section posed unique difficulties as it traverses a particularly narrow channel that frequently experiences swift water rises during rainfall, sometimes submerging completely underwater. An elevated boardwalk solution was required to allow the trail to be utilized in minor to moderate rainfall, while also minimizing maintenance issues caused by silt (a common after effect of flooding). The path also needed to run through a tunnel directly over the oft-flooding creek.

Solution

PermaTrak's no-maintenance concrete boardwalk material was the best solution for the Cross Charlotte design team as wood would deteriorate quickly in the rapid flooding conditions.

PermaTrak's engineering teams also helped develop a solution for supporting the treads as the boardwalk continued through the tunnel. Each tread is supported by two stainless steel brackets secured to the walls of the box culvert allowing for elimination of the pier and beam support in this section.

The elimination of pier and beam support keeps the waterway area open, minimizing blockage during a flood. A protected debris fence was also attached to the boardwalk piles, designed to capture and hold any floating debris.

The Cross Charlotte Trail now stands completed, connecting the city end-to-end, and providing a robust and sustainable pathway that will serve residents for years to come.

TECHNICAL DESCRIPTION

Boardwalk Length(s): 278 ft

Tread Width(s): 13'-3"

Color: Adelaide Gray

Texture: PermaGrip

Installation Date: Spring 2023

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