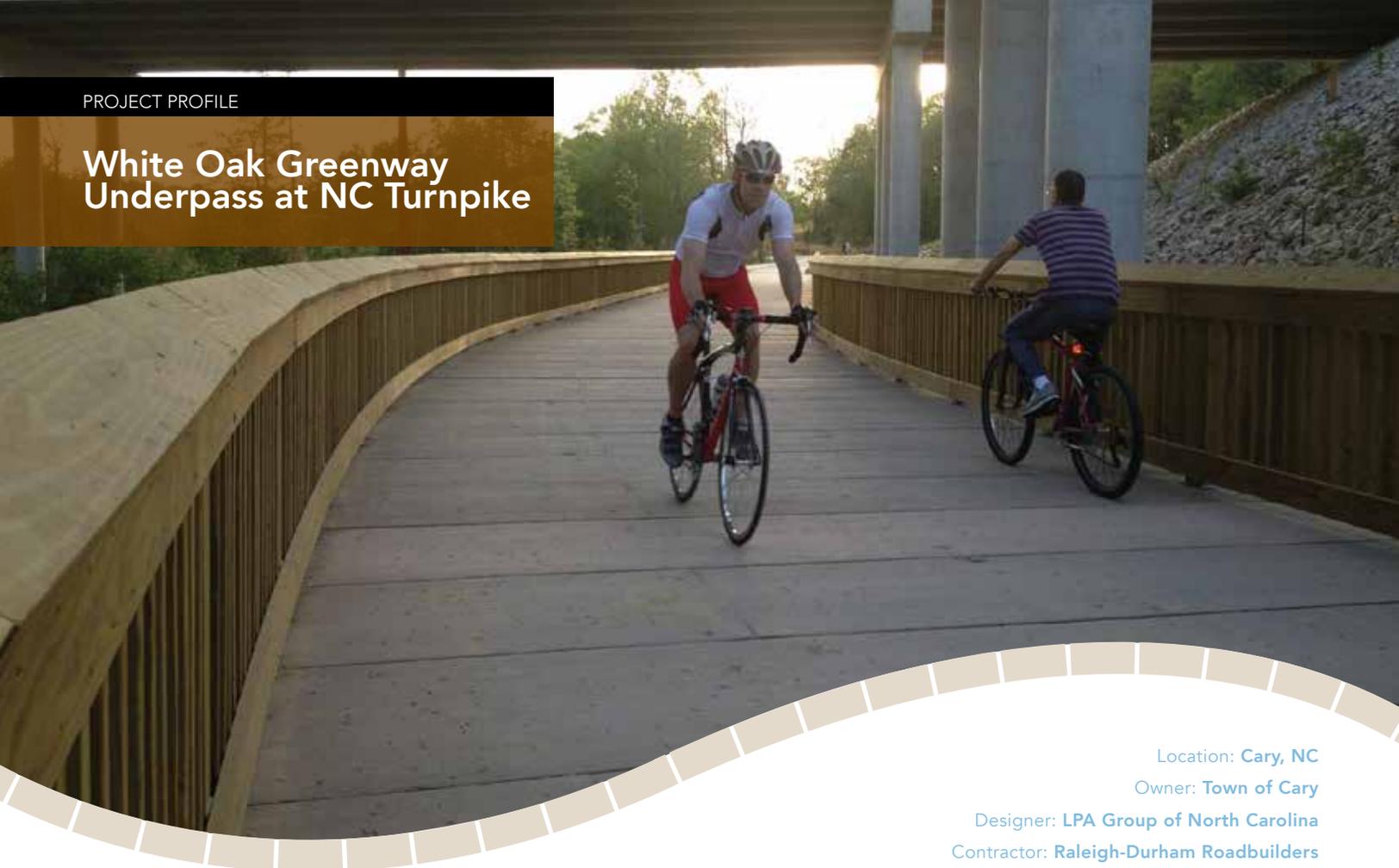


# White Oak Greenway Underpass at NC Turnpike



Location: Cary, NC

Owner: Town of Cary

Designer: LPA Group of North Carolina

Contractor: Raleigh-Durham Roadbuilders

## Challenge

The White Oak Creek Greenway originating in Cary, N.C.'s Bond Park had a section removed due to I-540 construction. The Town of Cary needed to rebuild this segment in order to maintain the functionality of the trail, but there were some challenges.

The greenway's alignment required an elevated boardwalk be built in a protected wetland (non-disturbance area), with a limited vertical clearance under the I-540 bridge. The Town of Cary needed the boardwalk to be designed for a large emergency vehicle, with enough horizontal clearance to maneuver through the boardwalk's curved alignment.

## Solution

A pricing evaluation showed PermaTrak to be more cost-effective than a pressure-treated timber boardwalk. Engineers at LPA Group of North Carolina worked with PermaTrak to design the wide greenway segment for a H-10 truck live load (20,000 pounds).

Raleigh-Durham Roadbuilders implemented a top down construction method to preserve the area's wetlands. A large excavator was used to vibrate timber piles in place before setting PermaTrak beams and treads - all while operating on top of previously installed boardwalk sections. A smaller Bobcat was used to move the material from the staging area to the excavator, working on top of the boardwalk instead of through the wetland area.

The finished product allows the White Oak Greenway, which will be seven miles long when complete, to continue toward the American Tobacco Trail, a popular 22-mile regional trail in the Triangle Area of North Carolina.

### TECHNICAL DESCRIPTION

Boardwalk Lengths: 315 ft.

Tread Length: 15 ft. 4 in.

Color: Melbourne Tan

Texture: Timber

Installation Date: March 2012