



Photos courtesy of HNTB West Virginia

TIGHT SCHEDULE MET ON TURNPIKE PROJECT

The West Virginia Turnpike, an 88 mile four-lane toll road including stretches of I-77 and I-64, is a winding and elevated highway through mountainous terrain. There are 116 bridges on the Turnpike, and prior to 2016, the average bridge age was 32 years. In 2016, the Turnpike commenced a multiyear bridge replacement program with an emphasis on minimizing mobility impacts. Accelerated Bridge Construction (ABC) techniques are being employed to replace existing bridge decks. ABC projects use innovative planning, design, materials, and construction methods to significantly reduce onsite construction time.

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Aaron Settle
Orders Construction Co.

In 2016, the Turnpike embarked on its first ABC deck replacement project on I-77 northbound in Ghent, WV. The awarded contractor was Orders Construction Co. of St. Albans, WV. Orders was challenged with completing the full replacement in less than two weeks, whereas traditional construction methods would have taken months. In order to complete the project in the specified time frame, Orders explored using devices and methods that would help expedite construction. One of the solutions they identified was using the Zoneguard® steel barrier system as their temporary barrier on the project.

According to Aaron Settle, Project Manager at Orders Construction, "[Using Zoneguard®] let us set 50' of barrier at a time instead of 12' (standard single sided concrete barrier) at a time. Another advantage was being able to haul 750LF on a truck, so there were less trucks to organize. Probably the most valuable thing for us utilizing Zoneguard® was the bolt down requirements for the minimum deflection on the bridge. Requiring only two bolts every 33'-4" cut down the installation time tremendously. It also made for less patches in the new bridge deck, which provided a better product for the owner."

Zoneguard® is one of the most extensively crash tested temporary barriers on the market today, having undergone testing to both NCHRP-350 (National Cooperative Highway Research Program Report 350) and MASH (Manual for Assessing Safety Hardware) standards. Zoneguard's rigid cross-section and low center of gravity result in industry-leading crash performance and a proven level of life-saving protection.