Since 2008, the West Virginia Department of Highways (WVDOH) has bid six projects on Corridor H between Moorefield and Davis, as alternate design alternate bid (ADAB) projects. All six of these projects went concrete instead of the asphalt alternative and collectively saved the Department more than $13 million compared to the low asphalt bids. Once all these projects are completed, there will be more than 45 miles of new concrete 4-lane divided highway between Moorefield and Davis.

“Instead of one material being chosen ahead of time, the market determines what material will be used,” said Darrell Allen, former deputy state highway engineer of WVDOH. “ADAB is more economical and we plan to continue to use it.”

The Mid-Atlantic Chapter of the American Concrete Pavement Association (ACPA) was instrumental in the implementation of ADAB with the WVDOH.

The first Corridor H project was 10.6 miles long and used 473,000 square yards of concrete (39,400 tons of cement). Located near Moorefield, West Virginia, it was the first formal ADAB in the state. The second project was 3.3 miles with 147,000 square yards of concrete (12,300 tons of cement). The third project was 5.1 miles with 228,000 square yards of concrete (19,000 tons of cement). The fourth project was six miles with 268,000 square yards of concrete (23,300 tons of cement). The fifth project was 11.8 miles with 526,000 square yards of concrete (43,800 tons of cement).

The sixth and most recent Corridor H project stretches from Scherr to Bismarck, West Virginia, and was let by the WVDOH in 2013. The project includes 8.5 miles of new 4-lane divided highway, which consists of 10-inch plain-jointed concrete pavements with 15-foot joint spacing and tied concrete shoulders (380,000 square yards of concrete and 32,000 tons of cement). Golden Triangle Construction Company, Inc., of Imperial, Pennsylvania, an ACPA member, received the 2015 West Virginia Contractor’s Association/West Virginia Division of Highways Concrete Quality Award for their work on this project.

Golden Triangle began work on the sixth project on July 26, 2013, and completed it in November 2014. The contract included a unique interim completion date that required one lane of traffic to be open to traffic in each direction by October 28, 2013. Golden Triangle met this requirement with not just one but two lanes of traffic open in each direction by October 28. This was a particularly impressive feat given the extreme weather conditions and terrain in this part of the state. Rainfall is typically 20 percent higher in the project area, and temperatures are about six degrees colder than in the rest of the state.

Additionally, the typical slope of the mainline paving in this mountainous terrain is much greater than usually encountered, reaching six percent in many areas.

The contractor used stringless technology for the grading all the way through the placement of the pavement. The paver used a dowel bar inserter to place the dowels and it also incorporated the use of a real-time profiler to allow the crew to monitor the smoothness in the plastic state. All this resulted in a smooth, high quality, award winning project.