

Leadership in Government, Ada County (Roadway)

Ada County Highway District, Eagle Road GRS-IBS Bridge over Dry Creek

Ada County Highway District (ACHD) used a Geosynthetic Reinforced Soil-Integrated Bridge System (GRS-IBS) method to construct a new bridge on Eagle Road over Dry Creek in the City of Eagle — the first use of this construction technique in Ada County. The GRS-IBS method allows small, single-span bridges to be built with less construction time than with traditional construction techniques, while providing low-cost, strong, durable structures. On Eagle Road, the GRS-IBS construction technique minimized transportation disruption to the public by allowing ACHD to close this important travel span for only three months, instead of the six months or more required of typical bridge construction of this size.

In addition, GRS-IBS bridges have proven durable and easy to maintain. This, combined with fewer components compared to traditional construction, provides the potential for lower life-cycle costs. GRS-IBS also provides environmental advantages, since construction of the abutment is contained within its footprint, and a deep foundation is not needed. Moreover, ACHD designed this bridge to be placed directly on the GRS-IBS substructure, creating a seamless and smooth transition between the bridge and approach roadway without using joints, deep foundations, approach slabs, or cast-in-place concrete. The smooth transition from the roadway to the bridge helps alleviate the “bump at the end of the bridge” problem caused by differential settlement between the bridge abutment and the approaching roadway.

The construction of Eagle Road Bridge also improved existing corridor routing from north Eagle to school, job, hospital, and shopping areas. This new Eagle Road Bridge incorporates both sidewalks and bike lanes on a new wider structure, thus supporting multiple transportation modes.