If existing rail is to remain, delete highlighted portion of this special.

1. REVISE CONCRETE BARRIER Rail-BR (Revised 7-07-16)

Description. Revise existing bridge curb and rail to create a concrete barrier. Work includes removal of existing rail, block-outs, rail posts and hardware, modification of concrete curb, drilling and grouting dowels, placing reinforcement, blocking out expansion joints, joint hardware, placing concrete, installing contraction joints and installing reflectors.

Materials.

Use structural steel meeting the requirements of AASHTO M 270 Grade 36.

Use AWS Type A headed shear studs meeting the requirements of AASHTO M 169 Grades 1010 through 1020.

Use an epoxy-resin grout meeting AASHTO M235 Type IV requirements to grout dowels as shown.

Use Concrete - Class Structure.

Required Submittals. Submit a Material Safety Data Sheet and Manufacturer’s published installation procedures for the epoxy-resin grout to the Project Manager for approval 5 days prior to starting the work.

Construction Requirements

Remove existing rails, block-outs, rail posts and hardware as shown in plans. Dispose of removed material not specified as salvage in accordance with the Standard Specifications.

Install dowels as shown in the plans. Follow epoxy-resin grout manufacturer’s published procedures for proper installation. Position the holes as shown in the plans, but do not cut reinforcing steel. If reinforcing steel is encountered while drilling holes at shown locations, relocate holes to clear reinforcing steel.

Remove all laitance, loose and foreign materials from existing concrete in contact with new concrete by sandblasting, high-pressure water cutting, or light bushhammering. Maintain the surface in a saturated surface dry condition for a minimum of 2 hours prior to concrete placement.

Install reinforcement and block-outs to maintain expansion gaps that exist in the existing concrete curbs as shown on the plans.

Install a 3/4” double chamfer at about 10-0 foot spaces in new concrete barrier to serve as contraction joints.

Place concrete in accordance with section 552 of the Standard Specifications.

Place reflectors on the barrier as per Detailed Dwg. No. 605-00.

Method of Measurement and Basis of Payment. Revise Concrete Barrier Rail-BR is measured by the lineal foot of the concrete barrier length constructed. Payment at the contract unit price is full compensation for all resources necessary to complete the item of work under the contract.