MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**OUTSIDE SCREED RAIL SUPPORT SYSTEM**

TAY:KAH 1 of 2 APPR:SCK:JAB:02-22-23

**a. Description.** The work consists of designing, furnishing, installing, and removing the finishing machine outside screed rail supporting system in accordance with sections 706, of the Standard Specifications for Construction except as modified on the plans and as stated herein. The finishing machine outside screed rail supporting elements must also support the temporary work platform adjacent to the proposed deck.

This special provision revises the requirements of subsection 706.03.A.2 (paragraph 3) of the Standard Specifications for Construction which requires placing bridge deck finishing machine rail supports over the proposed beams, and instead requires the outside rail supports to be supported from the abutments east of the east fascia beam and west of the west fascia beam of both B04 and B05 of 82211. The finishing machine inside rail supports will be placed on top of the existing/proposed deck for stages 1 and 2, respectively. See Slab and Screed plan sheets for additional details.

**b. Materials.** Furnish materials that meet the requirements of sections 906, 908 and 912 of the Standard Specifications for Construction. Steel beams for supporting the outside screed rails can be new or previously used if in fair condition and approved by the Engineer. Design the finishing machine outside screed rail supporting system in accordance with the *AASHTO Guide Specification for Bridge Temporary Works*.

**c. Submittals.** Submit complete shop drawings and design calculations, sealed by a Professional Engineer licensed in the State of Michigan, for the finishing machine outside screed rail supporting system in accordance with subsection 104.02 of the Standard Specifications for Construction. Include details of fabrication, erection, attachment to the existing structure, locations, and staging on the shop drawings. Do not submit partial shop drawings unless approved by the Engineer.

1. Design Requirements.

A. The outside screed rail supporting system must not transfer any loads to the proposed bridge steel beams nor the bridge center pier. Instead, ensure the outside screed rail supporting system is supported on the existing abutment walls under the abutment slopewalls in all four quadrants.

B. The maximum deflection of the outside finishing machine screed rail supporting system must not exceed an 1/8 inch due to the loads from the finishing machine.

C. The bottom of the outside screed rail supporting system cannot be lower than the bottom of the adjacent bridge fascia steel beam.

2. Test Reports. Where reference is made to *ASTM* designations provide test reports that certify conformance to each test method.

3. Shop Drawings. Include on each sheet a title block in the lower right-hand corner with the sheet number of the drawing, Department job number and control section. Include revision dates and remarks on revised drawing sheets.

Allow a minimum of 14 calendar days for Engineer review of the first shop drawing submittal and each subsequent resubmittal. No extensions of contract time or additional compensation will be granted for delays in preparing the final shop drawings or securing approval from the Engineer unless the Engineer’s review of a submittal exceeds the 14 calendar day allowance and such a delay impacts the final project completion date.

Prepare shop drawings as outlined herein and include all technical data and details pertinent to the design, fabrication, and installation of the outside screed rail supporting system.

**d. Construction.** Install finishing machine outside screed rail supporting system, place the finishing machine’s screed rails outside the subject superstructure concrete pour, and form, finish, and cure the superstructure concrete in accordance with section 706 of the Standard Specifications for Construction except as modified on the plans and this special provision.

Calculate dry run elevations for each beam line and submit to the Engineer a minimum of 7 days prior to placement of the deck concrete. Calculations must compensate for deflections of all screed rail supports as well as the beam lines.

Provide a written placement plan for loading, finishing, and timing of the deck placement to the Engineer with the dry run calculations.

**e. Measurement and Payment.** The completed work, as described, will be measured as a lump sum and paid for at the contract price using the following pay item:

**Pay Item Pay Unit**

Outside Screed Rail Support System (Structure Identification) Lump Sum

**Outside Screed Rail Support System (Structure Identification)** includes shop drawing preparation, design, furnishing, installing, maintaining, and removing the finishing machine outside screed rail supporting system and temporary outside work platform used to complete the work for both stages of construction. Payment also includes all costs associated with determining dry run calculations and placement plan.