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DATE: 5/19/2015

TO: CONSULTANT STRUCTURE DESIGN STAFF

FROM: WILLIAM C. DREHER, P.E.
STRUCTURES DESIGN CHIEF
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SUBJECT: STRUCTURE BID ITEMS, SPECIFICATIONS, &
MISCELLANEOUS ITEMS

Ice for Hot Weather Concreting

- Effective starting with the 2016 Standard Specifications (August 1, 2015 PS&E's), structures plans may utilize a bid item for "Ice Hot Weather Concreting" based on the following guidance.
- Bridge Manual Chapter 6.4.41 and FDM 19-7-1.2 provide additional guidance related to this bid item.
- Per the FDM include "Ice Hot Weather Concreting", bid item 501.1000.S, in the structure plan when;
 - The structure contract utilizes any quantity of High Performance Concrete (HPC) masonry structures,
 - The combined contract quantity of the items listed in Standard Spec 501.3.8.2.1(2) is 2,000 CY or more, and
 - The placement of the above-mentioned items is scheduled to be between June 15th and August 15th.
- Use the following equation to estimate the bid item quantity;
$$\text{Ice (lbs)} = (15\%) \times (\text{Concrete Quantity CY}) \times (50 \text{ lbs/CY})$$

Steel Railing Bid Items

- Effective starting with the 2016 Standard Specifications (August 1, 2015 PS&E's), all "Railing Pipe", "Railing Steel", "Railing Tubular", and "Railing Steel Pedestrian" bid items shall be bid by the linear foot as opposed to a single lump sum unit.
- The special provision has been rewritten to accommodate the use of bid item numbers in the 2016 Standard Spec, and also to utilize the bid item unit of linear feet.
- Many of the standard railings require galvanizing before painting, such as "Railing Steel Type (C1-C6) (structure)" and "Railing Steel Pedestrian Type (C1-C6) (structure)". Designers should continue to utilize the re-written special provision located on the BOS webpage in concert with the new standard spec bid item numbers and names until the standard spec is updated in 2017 to include all applicable guidance listed in the special provision.
- These bid item quantities shall be calculated using the out-to-out length of the top rail member, measured along the railing.

Protective Surface Treatment & Pigmented Surface Sealer

- Effective starting with the 2016 Standard Specifications (August 1, 2015 PS&E's), bridge plans should utilize two different products as protective treatments.
- "Protective Surface Treatment" (bid item 502.3200) shall be utilized as the material applied to the bridge deck/medians/raised sidewalks. Protective Surface Treatment materials can be found on the Concrete Protective Surface Treatment approved products list.

- “Pigmented Surface Sealer” (bid item 502.3210) shall be utilized as the material applied to the front face and top surfaces of parapets. Pigmented Surface Sealer materials can be found on the Cure & Seal Compounds for Non-Trafficked Surfaces on Structural Masonry approved products list.
- The material properties for each of these products are distinct and thus, the change to bid these items separately was developed.

Alternate Construction Joint

- Designers should provide a plan sheet showing the typical Alternate Construction Joint in all structures plan sets that require a construction joint in the substructures.
- A note will be added to Standard 12.09 in the July 2015 updates that states that “saw cutting the construction joint is not allowed” in order to reduce the potential of damage caused by this approach.
- The insert sheet for this detail has been updated to reflect the note change coming to the Standard.

Laminated Elastomeric Bearings

- The following notes currently shown on Standard 40.08 will be removed in the July 2015 updates: “Due to height restrictions, steel plate may be omitted and elastomer epoxied to girder. Epoxy to be supplied by bearing manufacturer”.

Structural Approach Slabs

- The July 2015 Bridge Manual updates will include a change in policy for the use of structural approach slabs. The change will require structural approach slabs to be used on **all bridges carrying traffic volumes greater than 3500 AADT** in the future design year.
- Bridge Manual Chapter 12.11 and FDM 14-10-15 will provide additional guidance related to this change.
- Structural approach slabs are not intended to be required for rehabilitation projects due to the work required to attach the approach slab to an existing abutment and the low expected settlement of the existing approach thereafter.

BOS Consultant Review Unit Reconfiguration

- The Consultant Review, Contracting, and Hydraulics Unit has recently undergone some staff changes. If you have design or plan review questions, please contact one of the following staff members:

○ Najoua Ksontini	Unit Supervisor	608-266-2657
○ Steve Revello	Consultant Structures Project Engineer (Final Plans)	608-266-5095
○ Tony Landini	Consultant Structures Project Engineer (Preliminary Plans)	608-266-7818