



Bridge Technical Committee – Minutes Wisconsin DOT, Industry, and Partners Thursday December 17th, 2020 1:00 – 3:30 PM

Microsoft Teams meeting

Subcommittee Reports:

1. Design Subcommittee update – Aaron Bonk

Aaron will give an update for the spring Design Subcommittee 2020 meeting and agenda.

Standing Topics:

1. Project and Letting update from BOS Design (Aaron Bonk & Laura Shadewald)

Wisconsin Highway Research Program Bridge Items – (Dave Kiekbusch)

WHRP: <http://wisconsindot.gov/Pages/about-wisdot/research/whrp.aspx>

Dave gave an update on the following in-progress WHRP projects:

- Concrete Bridge Deck Protections and Treatments
- Internal Curing of Bridge Decks
- Textured Epoxy Coated Rebar
- Rating Longitudinal Laminated Timber Slab Bridges
- Adhesive Anchors
- Bridge Abutment Slope Protection
- **New FY21 Solicitation – Deck Overlays**

Previous Meeting Carryover Topics:

1. **Setting grades on slab span bridges (Aaron Bonk)** - The question that has been raised by a few contractors is who is responsible for setting the final slab profile prior to pouring in the field.

Action Item: Aaron will coordinate potential updates for setting grades on slab bridges. This may include updates to the CMM, Specifications, Bridge Manual, and possibly adding pantry spreadsheets. CMM guidance should note that camber values should not be reduced as it is better to have short-term ride compromises versus long-term ride compromises associated with reducing camber values. There is a pantry spreadsheet for DOT staff and consultants to use that is being added in January 2021. The risk for final grades will still lie with the contractor who is supplying the deflection information for their falsework. This will be in the January ASP 6 and included on all Lets beginning with the January 2021 Let. This will also be addressed in the yearly regional construction training. – **This Item is Closed**

2. **Payment for Temporary Bridges (Luke Haun)** We are seeing a difference in when during the projects temporary bridges are being paid for. Some PM's are paying when the project is completed, and some are paying 50% when completed and 50% when removed. It would be beneficial to have a system in place, so it is uniform and agreeable to both parties.

Action Item: Bill Oliva investigated this topic and provided update including Spec 526.5 (attached). Basically, the Spec 526.5 -Payment has been updated to reflect that the department will pay 70% of the item upon opening of the temporary bridge for operation and the remainder of the item (30%) upon removal and restoration. (See below for updated Spec language) – **This Item is Closed**

3. **Free-fall placement of structural concrete in drilled shafts and the current requirement for handling and placing concrete (Section 502.3.5 (8)) (Riley Padron/ Gene Sheedy)** – “If placing concrete in structures, the distance from the discharge ends to the point of deposit for chutes, troughs, pipes, belts, and buckets shall not exceed 4 feet”. We have found some inspectors enforcing this on sign structure foundations and noise wall post bases and feel some clarification or revised direction from the DOT is warranted. When a special provision for drilled shafts is not provided on a project, most inspectors will default to this line when we try to free-fall concrete in a dry hole.

Action Items: Riley to provide Bill with concrete free-fall literature. Bill will provide a follow-up at the next meeting. – Bill has not received any literature to date – **No Action on this at December 2020 BTC**

New topics:

1. **SE region initiative to reduce overruns in Concrete Masonry Overlays (Julie Brooks)**

Julie would like to discuss an effort that has started in the SE region to reduce overruns in Concrete Masonry Overlays. This has been an ongoing problem and a small committee has formed to consider options on both the design and construction side to get better estimated quantities and limit cost overruns.

Julie shared a breakdown of 3 projects from the SE region from this year showing plan quantities vs. actual quantities of for concrete masonry overlay. One of the projects under ran the plan quantity slightly (1%), one overran slightly (2.6%), and one was a major overrun of the plan quantity (45%). The concrete overlay is paid by the cubic yard for material and placement. The question at hand is how to compensate for overruns when the nature of the work is the same and the only significant change is the volume of materials. This concern is separate from the deck preparation quantity that is paid separately. There were a few options discussed at the BTC that included:

- Draft Language developed by the SE Region Team for consideration - *Concrete masonry overlay quantities have been computed by the CY to account for planned thickness, including changes in cross slope and 1/2" allowance for variations in surface and profile. Consistent with Standard Specification 104.2.2.4.1 Altered work, the department will consider any CY quantity overrun in excess of plan quantity as a result of thickness of overlay placed as altered work, and will adjust the contract to account for increased material and placement cost. Payment for concrete masonry overlay deck item in excess of 110% of cumulative plan quantity (all locations) will be based on 30% of the bid cost of the Concrete Masonry Overlay Deck item.*
- Paying the placed quantity up to 110% plan quantity at the item bid price and material placed beyond 110% at invoiced material price.
- Taking additional design measures to identify issues in the existing bridge deck that may lead to variation or provide better accuracy in plan quantity (coring, more detailed inspection, and survey).
- Kevin McMullen thought that the work might be paid by the SY and the material paid by the CY.

Action Items: The follow up action for this will be BOS (Bill Oliva will reach out) will ask to meet with Julie and the SE Region Group to discuss this issue to help better understand the driving issues in variation and discuss options to address the issue whether it be design or contractual as required. In addition, Matt Grove indicated that he will discuss this with the contractors and get additional information for consideration.

2. **Steel price adjustment (Matt Grove) -** Matt wanted to know what the status of this is and why we are not seeing it used on projects. Several years ago, the concept was developed and was to be included in contracts, but it appears to be no longer used. This is essential to include now that projects are no longer awarded quickly.

Matt and several contractors indicated that they were seeing some significant swings in steel prices in short periods of time. It was said that there have been as high as 30% changes in price of steel piles in just a matter of days. This seems to be most pressing for steel piles. When contract award is delayed, it poses a problem for bidding contractors. The Steel Price Adjustment Special Provision has not been used since 2011. The special provision formulas allow for a 5 percent variation in steel prices without recognizing cost increases/decreases. There was also a cap on amount of adjustment the department would make. Laura Shadewald noted that Steel Price Adjustment if for structural steel and would not include piling. Bill Oliva noted he will touch base with BPD on this topic.

Action Items: BPD is aware of Matt's concern, however at this time there was not interest in bring this special provision back into future let projects. The concerned with delayed awards of projects has been noted. – **No further action currently.**

3. **Contractors perspective on the use of taller A5 (pile Encased) Abutment compared to the shorter A1 Abutment (Bill Dreher/Bill Oliva) –** There is a general question that we would like to discuss about the construction economics of comparing a shorter bridge build with A5 abutments to slightly longer one with A1 abutments.

Bill Dreher brought the question what would be more preferable and economic from the construction standpoint, a shorter bridge with taller A5 abutments that may be closer to waterways or a longer bridge with shorter A1 abutments that may be further away from the water. The discussion from the contractors seemed to favor a longer bridge with abutments away from the water.

Action Items: The comments will be considered by BOS in any future examination of this question.

Action Item: None

Standing Item - Specification Changes / Updates – Discussion (Mike Hall or technical sponsor) (These items weren't discussed due to time restraints, attached for reference)

- Removing Structure over Waterway Specs (Aaron Bonk/Mike Hall)



(C1) Bridge -
waterway removal.pdf

Attachments:

1. Carry Over Item – Payment for Temporary Structures.

(c1) bridge - temp structure.docx
Contact: Bill Oliva 266-0075

11/4/20 3:38 PM

(C1) Bridge - temp structure

526.5 Define two-stage payment for temporary structures.

526.5 Payment

Replace paragraph two with the following:

- (2) Payment for the Temporary Structure bid items is full compensation for providing a temporary structure including design and construction; for backfilling with structure backfill; for maintaining; and for removing when no longer needed. The department will pay 70 percent of the contract amount when open to traffic and the balance after structure removal and associated site restoration.

502.5.6 Define additional payment for surface prep and waste material handling under the Reseal bid items.

502.5.6 Surface Sealing

Replace paragraph one with the following:

- (1) Payment for the Protective Surface Treatment and Pigmented Surface Sealer bid items is full compensation for treating and sealing surfaces including surface preparation and color-matching as required. Resealing after pavement marking is incidental to the applicable pavement marking bid item under 646.5. Payment for the Reseal bid items also includes initial surface preparation and waste material confinement, collection, and disposal.

BID ITEMS ADDED

Add these bid items effective with the November 2021 letting:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
502.3205	Protective Surface Treatment Reseal	SY
502.3215	Pigmented Surface Sealer Reseal	SY

CY2021 Goals
Bridge Technical Committee

Team Purpose: The Bridge Technical Committee’s (BTC) purpose is to bring together the Wisconsin structures community to identify and resolve statewide bridge construction issues, identify and create improvements to the structures construction program, and to share new structures initiatives with industry and stakeholders. This purpose does not involve intervening on individual project issues in that this is the role of the construction administrative staff. The focus of the BTC is broader statewide policy and programs.

2021 Goals and Priorities

- 1. Identification of emerging issues and share guidance, detail, and specification updates related to construction of bridges – on going.**
 - Provide opportunity for regular meetings with industry to identify emerging issues related to construction of bridges
 - Share draft and final specification updates with industry and provide insight to expectations related to construction projects.
 - Share emerging technology with industry and stakeholders (ABC, Internal Curing of Bridge Decks, and other).

- 2. Address the overlay specification and equipment requirements.**

The current specification limits the finishing equipment for our Type “E” overlay to obsolete finishing machines owned by a limited number of contractors. We need to work with industry on what options are available for finishing machines and what adjustments may need to be made to our specification for overlays to ensure we get the product that we want and that there are multiple contractors able to completely bid on overlay projects.

- 3. Examine the issue and concerns with air loss related to pumping concrete**

- 4. Convene the Bridge Design Subcommittee and address the specific sub-committee agenda items**