

QA CLOSE-OUT MEETING CLARIFICATIONS

Active	
<u>Topic</u>	<u>Date</u>
(SCBI) coding 5 vs. 7	6/4/2020
Deck rating of Prestressed Non-Composite Adjacent Box Beam	6/4/2020
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Inactive		
<u>Topic</u>	<u>Superseded by?</u>	<u>Date</u>

(SCBI) coding 5 vs. 7

Status: [Active](#)

- There is a common misconception that an SCBI = 7 (Countermeasures) is “better” than an SCBI = 5 (Stable w/in footing). SCBI “7” is defined as countermeasures installed to correct a previous scour problem. SCBI “5” is defined as foundations in stable condition, which did not have a previous scour problem. A bridge with SCBI = 7 is considered an SCBI Category D and requires a POA while a bridge with SCBI = 5 is not assigned an SCBI Category. For example, in the case of a bridge with an IU27 (SCBI Code) code of “7” for one substructure unit and “5” for another, the value returned for IU04 (Overall SCBI) will be “7”, since a “7” is more critical than a “5”.

Deck rating of Prestressed Non-Composite Adjacent Box Beam

Status: *Active*

- The top flange of adjacent box beams is treated as the deck and establishes the deck condition rating when no independent concrete deck is present. In some cases, the tops of the beams are covered by a wearing surface. The condition of the wearing surface gives an indication of the deck condition which typically should not be higher than the wearing surface condition rating unless there is strong evidence to support otherwise.
- The deck rating for a NCABB bridge does not have to be the same as the superstructure rating when no independent concrete deck is present. For example:
 - Cracks in fascia of exterior beams control the superstructure.
 - No signs of leakage along the underside and top of deck/wearing surface is in good condition.
 - Deck could be rated a “6” and superstructure rated a “4”.
 - Do not assume the deck is in poor condition unless the deterioration along the underside proves there is a problem with the deck.
 - Or if past photographs show the top flange to be in bad condition before a wearing surface was applied.

Superstructure condition rating for rehabilitated NCABB

Status: *Active*

- When a P/S NCABB bridge has open parapet joints with cracking exhibited on the beams below the joints, the superstructure condition rating should be no higher than a 3.
- If the P/S NCABB bridge was rehabilitated by just making the parapet continuous (elimination of the open joints), the superstructure rating should not be increased higher than a 5.
- If the P/S NCABB bridge was rehabilitated with a composite deck and continuous parapet, use the standard condition rating table to evaluate and rate the superstructure. The special rating table for NCABB does not apply once the deck is composite action.

Assigned Load Rating FAQ

Status: **Active**

1	<p>Question: We have a bridge built on or after 2011 and it was a locally owned bridge designed with ASD or LFD. How do we code the NBI vehicle?</p> <p>Response: HS20 shall be the NBI vehicle and reported in tons. 4B01 Design Load shall be set to the design vehicle (not PHL-93). IR06 shall be set to A, B, D, or E. Note, for future projects with PennDOT oversight, we should require the bridge to be designed LRFD with PHL-93 as the design vehicle.</p>
2	<p>Question: Our District prefers to provide load ratings with FWS included. Is that acceptable?</p> <p>Response: Yes, each District can choose to provide ratings with or without FWS.</p>
3	<p>Question: We have a bridge built on or after 2011 which was designed with the PHL-93 vehicle but we don't have PHL-93 ratings (For example, a Conspan Arch) and there is not enough information on the plans and field measurements alone are not enough to rate the bridge. How do we code the NBI vehicle?</p> <p>Response: The NBI vehicle must be the PHL-93 with rating factors. 4B01 Design Load shall be set to PHL-93. IR06 shall be set to F. The best solution would be to contact the manufacturer or designer and have them provide the load rating. If this is not possible, the PHL-93 RF's will need to be assigned based on engineering judgement assuming the IR=1.0 and OR=1.50. Note, for future projects, we should have the manufacturer provide ratings on the sealed design plans.</p>
4	<p>Question: Pub 100A, Example 5, gives three methods to code the load rating set in BMS2. Is there a preferred method?</p> <p>Response: Example 5 is a case with the substructure designed by LFD and a superstructure replacement in 2014 designed LRFD with the PHL-93 vehicle. FHWA allows the NBI vehicle to be HS20 or PHL-93 for this case. All three methods are acceptable; therefore, the Districts may choose the method that works best for them.</p>
5	<p>Question: We have a bridge built in 1976 which had a deck replacement in 2019. We have stamped LRFD ratings based on the deck replacement. Should we utilize LFD ratings?</p> <p>Response: The NBI vehicle should be HS20 reported with tonnage. Consider using the LRFD method with PHL-93 as the NBI vehicle only if it is a complete superstructure replacement.</p>
6	<p>Question: Our rating set has the IR20/21 rating factors. Why is the bridge still getting flagged by the validations as an error?</p> <p>Response: The PHL-93 rating vehicle needs to be assigned as the NBI rating vehicle in order for the rating factor data to be included on the NBI submission to FHWA.</p>
7	<p>Question: We have a bridge built on or after 2011 and it was a locally owned bridge with no plans and we don't know the Design Load. How do we code the 4B01 Design Load and the NBI vehicle?</p> <p>Response: HS20 shall be the NBI vehicle and reported in tons. Perform a load rating of the bridge if possible with field measurements. The 4B01 design vehicle may be determined based on the results of the rating. If the bridge can't be rated, set 4B01 Design Load to HS20. Note, for future projects with PennDOT oversight, we should require the bridge to be designed LRFD with PHL-93 as the design vehicle.</p>
8	<p>Question: We have a bridge built on or after 2011 and it was a locally owned bridge with plans indicating the bridge was designed with LRFD methodology with PHL-93 as the design load. A rating set is not available on the plans. How do we determine the load ratings?</p> <p>Response: If there is sufficient information on the plans to analyze the bridge or if field measurements are sufficient to analyze the bridge; then utilize PennDOT's LRFD programs to determine the ratings. If there is not enough information to perform an analysis; see Question 3.</p>
9	<p>Question: Bridge was built on or after 2011 and superstructure was designed LRFD and the timber deck was designed LFD. How should we code 4B01 Design Load and the NBI vehicle?</p> <p>Response: The NBI vehicle should be HS20 with tonnage. The 4B01 Design load should be HS25.</p>
10	<p>Question: Bridge was originally built in 1972 and had a superstructure replacement in 2015. Do we need to assign PHL-93 as the NBI vehicle?</p> <p>Response: No, see Example 5 from SOL 495-20-01 for 3 possible methods to code. The NBI vehicle can be HS20 or PHL-93.</p>
11	<p>Question: We have a bridge built on or after 2011 and it was designed LRFD with HS20/25 as the design load. How do we code the NBI vehicle?</p> <p>Response: HS20 shall be the NBI vehicle and reported in tons. 4B01 Design Load shall be set to the design vehicle (not PHL-93). IR06 shall be set to C if the rating set is from the original design/plans.</p>

Inventory coding for structures without an independent deck

Status: [Active](#)

- In instances when there is not an independent deck (ie., traffic drives directly on the superstructure beams or slab)
 - If the beams or slab were cast with a sacrificial wearing surface, you should:
 - Code 6A33 with the thickness
 - Code 6B40 with a deck wearing surface condition rating
 - Code 6A38 as “00 - Not Applicable”
 - Code 1A01 with a deck condition rating
 - 1A01 should match 6B40
 - If there is not a record that the beam or slab have wearing surface included:
 - Code 6A33 as 0
 - Code 6B40 as N
 - Code 6A38 as “00 - Not Applicable”
 - Code 1A01 with a deck condition rating

*Note: It is not expected for changes to be made for historically coded items. If there is proof, plans, etc., the appropriate changes can be made following the guidance above.