Additional Guidance for Load Ratings

Please contact the Central Office Structure and Bridge Load Rating Program Manager with any questions with this document or additional issues that may need to be addressed.

Virtis

Slab Span Standards

- Sloped Reinforcing Steel\(^1\) – where longitudinal reinforcing steel alternates between a sloped bar (see standards C-15, C-17, etc.) and a straight bar, the bars should be modeled as follows:
  - Full length straight bar fully developed AND
  - Full length straight bar not fully developed to represent the sloped bar.

This methodology must be explicitly stated in the ‘Assumptions/Comments By Load Rating Engineer’ section of the Load Rating Summary Form (SB502).

- Edge Beam/Exterior Section – where the edge beam/ exterior section controls the load rating and there are no signs of distress caused by traffic, the District may discount the edge beam/ exterior section analysis and only use the interior section analysis for determining load capacities.

This decision must be documented in the ‘Assumptions/Comments By Load Rating Engineer’ section of the Load Rating Summary Form (SB502) and a Load Rating Summary Form (SB502) will be required for both the interior and exterior sections as applicable.

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\(^1\) Modeling sloping bars is currently beyond Virtis capabilities. Modeling only the straight portion of a bent bar and marking it as fully developed at the start/end (i.e. bend location) often erroneously results in the slab load rating being controlled by moment just beyond the bend where the reinforcement is not be considered although it is there. The effect of a sloping bar versus the effect of assuming one of the bars being full length, but undeveloped (modeled in Virtis by the area of steel proportionately increasing from 0% to 100% along the development length) is within an acceptable range.