700-B-301d BRIDGE LOAD RATING CALCULATIONS AND SUMMARY

*(Revised 04-25-21)*

*When the structure span, measured along the roadway centerline is greater than 20 ft, complete this form and include it with the load rating calculations as part of a box or three-sided structure working drawings submittal.*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Des. No.: |  |  | County: | | |  | |
| Contract No.: |  |  | District: | | |  | |
| Structure #: |  | | Reference Post: | | |  | |
|  | | | | | | | |
| *At least one of the following must be a registered professional Engineer.* | | | | | | | |
| Load Rated By & Date: |  | | | | | | |
| Checked By & Date: |  | | | | | | |
|  | | | | | | | |
| **Bridge Information** |  | | | | | | |
| Structure Type: |  | | | | | | |
|  | *material, single or multi cell, box culvert or three-sided structure (arch or flat top)* | | | | | | |
| Year Built: |  | | | | | | |
| Skew (degrees, L/R): |  | | | | | | |
| Span (ft, measured along roadway centerline): | | | | |  | | |
| Paved Roadway Width (ft, including shoulders): | | | | |  | | |
| Reinforcement: |  | | | | | | |
|  | *rebar size or WWR grid dimensions* | | | | | | |
| **Load Rating Information** | | | | | | | |
| Load Rating Method: | LRFR | | | | | | |
| Load Rating Program: |  | | | | | | |
|  | *AASHTOWARE, CANDE, SmartCulvert, ET Culvert* | | | | | | |
| Design Loading\*: |  | | | | | | |
|  | | | | | | | |
| \* *For Toll Road Live Load, a single truck with design lane load shall be used in each design lane. This loading shall be investigated under the Strength II Limit State. For Michigan Train Live Load, a single truck with design lane load shall be limited to one design lane located so as to cause extreme force effects, while the other design lanes are occupied by regular design loads. This loading shall be investigated under the Strength II Limit State.* | | | | | | | |
|  | | | | | | | |
| Design Loading | | | | Inventory Rating | | | Operating Rating |
| HL-93 | | | |  | | |  |
| Toll Road No. 1 (90 kip – 5 Axle) – required within 15 miles of an Indiana Toll Road gate. | | | |  | | |  |
| Toll Road No. 2 (90 kip – 4 Axle) – required within 15 miles of an Indiana Toll Road gate. | | | |  | | |  |
| Toll Road (126 kip) - required within 15 miles of an Indiana Toll Road gate. | | | |  | | |  |
| Michigan Train #5 (134 kip) - required on Indiana Extra Heavy Duty Highway System | | | |  | | |  |
| Michigan Train #8 (134 kip) - required on Indiana Extra Heavy Duty Highway System | | | |  | | |  |