

The National Bridge Inventory contains data submitted by state transportation departments to the Federal Highway Administration in coded format.  
 Form Interface Design: www.historicbridges.org. Data Conversion Assistance By www.bridgehunter.com. None of the involved parties make any guarantee of accuracy.

**Basic Information**

|   |  |   |  |                         |                           |
|---|--|---|--|-------------------------|---------------------------|
| Minnesota [27]  | St. Louis County [137]                                       | Duluth [17000]                                | 0.6 MI SE OF SUPERIOR ST   | 46-46-44.35 = 46.778986 | 092-05-34.46 = -92.092906 |
| L6116   | Highway agency district: 1                                   | Owner City or Municipal Highway Agency [04]   | Maintenance responsibility City or Municipal Highway Agency [04] |                         |                           |
| Route 140   | MSAS 140(LAKE AVE)   | Toll On free road [3]                         | Features intersected SHIP CANAL                                  |                         |                           |
| Design - main Steel [3]                                     | Design - approach Concrete [1]                               | Kilometerpoint 0 km = 0.0 mi                  | Year built 1905  | Year reconstructed 2011 |                           |
| 1 Movable - Lift [15]                                       | 2 Tee beam [04]  | Skew angle 0                                  | Structure Flared   |                         |                           |
|   |  | Historical significance                       | Bridge is on the NRHP. [1]                                       |                         |                           |
| Total length 152.9 m = 501.7 ft                             | Length of maximum span 117.6 m = 385.8 ft                    | Deck width, out-to-out 7.3 m = 24.0 ft        | Bridge roadway width, curb-to-curb 7.3 m = 24.0 ft               |                         |                           |
| Inventory Route, Total Horizontal Clearance 7.3 m = 24.0 ft | Curb or sidewalk width - left 1.5 m = 4.9 ft                 | Curb or sidewalk width - right 1.5 m = 4.9 ft |  |                         |                           |
| Deck structure type   | Open Grating [3]   |   |  |                         |                           |
| Type of wearing surface                                     | Other [9]  |   |  |                         |                           |
| Deck protection   | Not applicable (applies only to structures with no deck) [N] |   |  |                         |                           |
| Type of membrane/wearing surface                            |  |   |  |                         |                           |

**Weight Limits**

|  |                                      |                     |                   |                             |
|--|--------------------------------------|---------------------|-------------------|-----------------------------|
| Bypass, detour length 15.9 km = 9.9 mi | Method to determine inventory rating | Load Factor(LF) [1] | Inventory rating  | 25.8 metric ton = 28.4 tons |
|  | Method to determine operating rating | Load Factor(LF) [1] | Operating rating  | 44.7 metric ton = 49.2 tons |
| Bridge posting                         | Equal to or above legal loads [5]    | Design Load         | MS 18 / HS 20 [5] |                             |

### Functional Details

|   |                                       |                            |   |  |  |                              |      |      |      |
|---|---------------------------------------|----------------------------|---|--|--|------------------------------|------|------|------|
| Average Daily Traffic                                       | 6200                                  | Average daily truck traffi | %   | Year                                   | 2017   | Future average daily traffic | 6200 | Year | 2039 |
| Road classification   | Collector (Urban) [17]                | Lanes on structure         | 2   | Approach roadway width                 | 12.2 m = 40.0 ft   |                              |      |      |      |
| Type of service on bridge                                   | Highway-pedestrian [5]                | Direction of traffic       | 2 - way traffic [2]                               |  | Bridge median  |                              |      |      |      |
| Parallel structure designation                              | No parallel structure exists. [N]     |                            |   |  |  |                              |      |      |      |
| Type of service under bridge                                | Waterway [5]                          | Lanes under structure      | 0   | Navigation control                     | Navigation control on waterway (bridge permit required). [1] |                              |      |      |      |
| Navigation vertical clearanc                                | 41.1 m = 134.8 ft                     |                            | Navigation horizontal clearance                   | 98.8 m = 324.2 ft                      |  |                              |      |      |      |
| Minimum navigation vertical clearance, vertical lift bridge | 6.1 m = 20.0 ft                       |                            | Minimum vertical clearance over bridge roadway    | 5.49 m = 18.0 ft                       |  |                              |      |      |      |
| Minimum lateral underclearance reference feature            | Feature not a highway or railroad [N] |                            |   |  |  |                              |      |      |      |
| Minimum lateral underclearance on right                     | 0 = N/A                               |                            |   | Minimum lateral underclearance on left | 0 = N/A  |                              |      |      |      |
| Minimum Vertical Underclearance                             | 0 = N/A                               |                            | Minimum vertical underclearance reference feature | Feature not a highway or railroad [N]  |  |                              |      |      |      |
| Appraisal ratings - underclearances                         | N/A [N]                               |                            |   |  |  |                              |      |      |      |

### Repair and Replacement Plans

Type of work to be performed

Work done by

Bridge improvement cost 999999000 Roadway improvement cost

Length of structure improvement 46.6 m = 152.9 ft Total project cost

Year of improvement cost estimate 2011

Border bridge - state Border bridge - percent responsibility of other state

Border bridge - structure number

## Inspection and Sufficiency

|   |  |                                       |  |
|---|--|---------------------------------------|--|
| Structure status                                  | Posted for other load-capacity restriction [R]   | Appraisal ratings - structural        | Equal to present minimum criteria [6]                            |
| Condition ratings - superstructure                | Satisfactory [6]   | Appraisal ratings - roadway alignment | Equal to present desirable criteria [8]                          |
| Condition ratings - substructure                  | Good [7]   | Appraisal ratings - deck geometry     | Basically intolerable requiring high priority of replacement [2] |
| Condition ratings - deck                          | Fair [5]   |                                       |  |
| Scour   | Bridge foundations determined to be stable for the assessed or calculated scour condition. [8]   |                                       |  |
| Channel and channel protection                    | Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition. [8] |                                       |  |
| Appraisal ratings - water adequacy                | Equal to present desirable criteria [8]  | Status evaluation                     |  |
| Pier or abutment protection                       | Navigation protection not required [1]   | Sufficiency rating                    | 49.5   |
| Culverts  | Not applicable. Used if structure is not a culvert. [N]  |                                       |  |
| Traffic safety features - railings                | Inspected feature meets currently acceptable standards. [1]  |                                       |  |
| Traffic safety features - transitions             | Not applicable or a safety feature is not required. [N]  |                                       |  |
| Traffic safety features - approach guardrail      | Not applicable or a safety feature is not required. [N]  |                                       |  |
| Traffic safety features - approach guardrail ends | Not applicable or a safety feature is not required. [N]  |                                       |  |
| Inspection date                                   | October 2018 [1018]  | Designated inspection frequency       | 12 Months  |
| Underwater inspection                             | Not needed [N]   | Underwater inspection date            |  |
| Fracture critical inspection                      | Every two years [Y24]  | Fracture critical inspection date     | September 2017 [0917]  |
| Other special inspection                          | Not needed [N]   | Other special inspection date         |  |