

Technical Data Sheet

Bridge Identification:	1231510000000B01 1231510000000B02
Facility Carried:	I-96
Feature Intersected:	Grand River
Location:	Windsor Township
County:	Eaton
Region:	University
Year Built:	1962
Year Reconstructed:	1987
Bridge Type:	Welded Plate Girder System
No. of Spans:	3
Deck Area:	14,350 S.F. (B01) 10,865 S.F. (B02)
Paint System:	Type 1
Paint Area:	32,500 S.F. (B01) 25,000 S.F. (B02)



Plan View Looking East (1)

Fracture Critical Members
<ol style="list-style-type: none"> 1. Pin and Hanger Assemblies 2. Tension Areas of Main Girders

Fatigue Sensitive Details
<ol style="list-style-type: none"> 1. Ends of Longitudinal and Transverse Stiffener Welds 2. Lateral Bracing Connections to Exterior Girders 3. Cracked Welds at East Abutment of B01 4. Welded Web Splices 5. Welded Flange Splices/Transitions

General Bridge Description

Bridges B01& B02 of 23151 are three-span welded steel plate girder bridges carrying I-96 Eastbound and Westbound, respectively, over the Grand River in the Windsor Township in Eaton County. The three spans of Bridge B01 measure 128'-9", 142'-0", and 128'-9" from south to north with an overall bridge length of 399'-6". Bridge B01 has a sharp skew and has lateral bracing in the bay between the exterior girder and the first interior girder. The three spans of Bridge B02 measure 96'-3", 110'-0", and 96'-3" from south to north with an overall bridge length of 302'-6". Bridge B02 is not skewed and does not have lateral bracing. The out-to-out width of each deck is 35'-11", providing for two 12'-0" travel lanes and a shoulder nearly 4'-0" wide on each side of traffic. The bridge is supported by reinforced concrete abutments and solid shaft piers.

Span 2 of Bridge B01 contains a 110'-0" long suspended span supported by pin and hanger assemblies at the end of the plate girders cantilevered from Spans 1 and 3. Span 2 of Bridge B02 contains a 88'-7" long suspended span supported by pin and hanger assemblies at the end of the plate girders cantilevered from Spans 1 and 3.

The bridges were built in 1962 and overlaid in 1981. The superstructures were painted in 1987, when the pins and hangers were replaced.



North Elevation View (2)

Inspection Checklists

For additional information and detailed inspection procedures, refer to the Inspection and Maintenance Program section of this manual.

Fracture Critical Members/Fatigue Sensitive Details

- ! **Pin and hanger assemblies.**
- ! **Ends of longitudinal and transverse stiffener welds.** Also, the longitudinal stiffeners have butt-welded splices which should be carefully inspected.
- ! **Lateral bracing gusset plates for B01 where they are welded to the webs of the exterior girders.**
- ! **Tension areas of main girders.** See Figure 1 in the Inspection and Maintenance Program section of this manual for tension areas.
- ! **Cracked welds in south fascia girder at east abutment of B01.** These cracks should be monitored closely for propagation.
- ! **Welded web splices.**
- ! **Welded flange splices / transitions.**

Other

- ! **Expansion joints.** Monitor condition of these joints for leakage.
- ! **Bearings.** Inspect the bearing assemblies at the piers for signs of unusual wear or cracks. Inspect to ensure they are free to move as intended.
- ! **Beam ends.** Several beam ends are in contact with each other at Joint 2 of Girder 2 for B02. This condition should be monitored for distress to the superstructure or substructure.

Maintenance Recommendations

Regularly Scheduled Maintenance Items

Recommendation	Schedule
Clean bridge drainage system components (deck drains and downspouts).	6 to 12 months
Flush bridge deck joints and check for leaks.	12 months
Powerwash bridge superstructure.	12 months
Powerwash bearings and pin and hanger assemblies.	12 months