

**ALLIED STEEL MODULAR STEEL BEAM BRIDGE  
WITH PRECAST CONCRETE DECK**

**Location:** Highway 200 (N-57/C000057)-Garfield County; Reference Point 322

**Project Name:** Maxwell Coulee – 22 M E Jordan

**Project Number:** UPN 7962000

**Experimental Project No.** MT-12-05

**Type of Project:** Modular Steel Beam Bridge with Precast Concrete Deck Superstructure

**Principal Investigator:** Craig Abernathy, Experimental Project Manager (ExPM)

**Experimental Design Description**

The current structure is currently load posted and is unusable as a through route for legal or permitted loads which is hindering intrastate and interstate commerce. The deterioration of the substructure has accelerated. Field maintenance is checking the structure for additional settlement on at least a weekly basis. In order to alleviate this, an accelerated replacement project using accelerated bridge construction (ABC) techniques is required. This system meets the requirements of this ABC aspect of the project.

The use of this prefabricated system will reduce the single-lane detour usage timeframe and is in line with several of the aspects of FHWA's Every Day Counts initiative. The Modular Steel Beam System proposed is a technology new to MDT that is being developed by a local fabricator. Proprietary purchase for this first use will allow MDT to define design details in conjunction with the fabricator that are both economical and structurally sound.

Therefore it is the Departments intent to construct a new structure using the Allied Steel (Lewistown, MT) Modular Steel Beam Bridge with Precast Concrete Deck Superstructure – 100'-0" long by 38'-4" wide.

## **Evaluation Procedures**

Research will record the installation for best practice and any constructions concerns germane to the performance of the Allied Steel structure.

Semi-annual inspections will report on structure integrity and any other visually measurable outcomes (including crack-mapping). Additional site inspections may supplement the semi-annual visits based on need. Monitor and report on long-term performance and condition.

**Construction Documentation:** Will include information specific to the installation events.

**Post Documentation:** Will entail semi-annual site inspections for annual report.

## **Evaluation Schedule**

Research will monitor performance for a minimum period of five years annually, with every year up to ten years (informally). This is in accordance with the Department's "Experimental Project Procedures". Delivery of a construction/installation report, interim, annual or semi-annual reports is required as well as a final project report (responsibility of Research). A web page will be dedicated to display all reporting from the project.

2012:	Installation/Construction Report
2013-2016:	Semi-Annual Inspections/ Annual Evaluation Reports
2017:	Final Evaluation/Final Report