

US-131 Bridge Rehab over the Muskegon River

Work / Activity 1

GPR/NDT Inspection, Concrete Coring, PT Bar supply and install,

VECP -Steel to Concrete Corbel

Work / Activity 2

Supply and Install of Flat Jack Bearing & External PT



Description of the work

After undergoing a routine bridge inspections and a more thorough structure study in 2013, Michigan DOT decided to strengthen the NB/SB 580 foot long cast-in-place concrete PT box girder bridges at US-131 over the Muskegon River. Anlaan Corporation was awarded the project with Freyssinet, Inc. as their main post-tensioning and structural repair subcontractor.

Freyssinet Mission

Freyssinet, Inc. was contracted to do the specialty work of the project. Prior to coring 408 holes, substantial amount of time was used for NDT/GPR to ensure the existing PT tendons/rebars will not be damaged or cut during the coring operations.

Freyssinet, Inc. collaborated to the preparation of a Value Engineering Change Proposal (VECP) to change the corbels from steel to concrete. The completed corbels support the flat jacks under the box girder web. Freyssinet, Inc. supplied and installed 8ea -24" dia flat jacks bearings.

Inflatable flat jacks were permanently inflated with grout to a lock-off load of 700kips prior to any post tensioning work took place in the bridge.

16ea-12C15 tendons for external post-tensioning were supplied and installed by Freyssinet, Inc. including the supply, install and stressing of 424 assorted PT bars lengths/sizes for concrete anchor/deviators and concrete corbels.

General Contractor : Anlaan Corporation
Owner : Michigan DOT

Subcontractor: Siva Corrosion Services

Beginning of works : July 2014
End of works : August 2015

