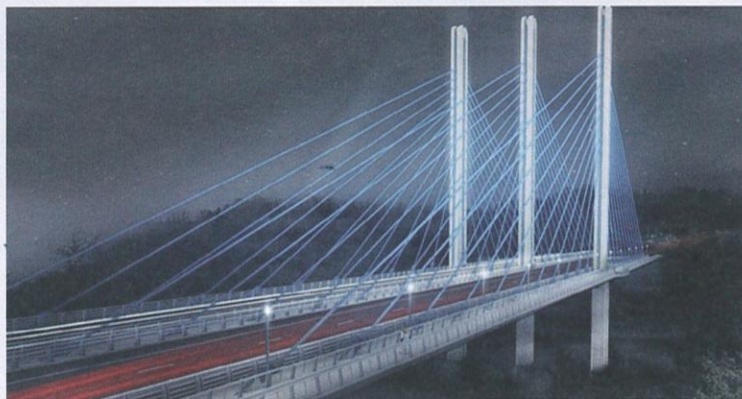


THREE-PRONGED APPROACH

First phase of construction for a new cable-stayed highway bridge in Ontario, Canada is now under way with delivery of the first superstructure steel due to take place in the summer. The US\$97 million Nipigon River Bridge at Thunder Bay is being built by the joint venture contractor Ferrovia-Bot Construction on behalf of owner Ministry of Transportation, Ontario. The modest cable-stayed bridge designed by McCormick Rankin Corporation has a triple tower with three cable planes supporting a composite steel superstructure. The total length of the bridge superstructure is 252m with a 139m-long main span and the superstructure system

consists of three longitudinal steel plate edge girders and a transverse floor beams grid supporting full depth precast concrete deck panels stitched through Ductal infill joints. The tower legs above deck level are constructed from precast segments.

The four lane bridge replaces an existing two lane bridge and is being built in two halves, phased to eliminate any obstruction to traffic. The second phase will be built once the existing bridge has been demolished. The towers and foundations are in the process of being constructed for the first phase, construction engineering consultant Infinity Engineering is finalising the detailed erection plans for the balanced cantilevering of the



superstructure. Fabrication of the steel superstructure is ongoing at the moment, with delivery expected this summer. The three-legged concrete tower is 74m high; the first 23m up to deck level will be cast in place and the remaining 51m will be built using precast units. The cast in place works are currently under

way, using climbing formwork. At the same time, the tower segments are being manufactured at precast facilities in Alberta. These tower segments are produced with a vertical match-cast process using the short line procedure. Construction of the bridge is due to be completed in 2017.