The Maumee River Crossing project will be constructed using segmental concrete construction. The entire project, including the approaches and main span, is divided into approximately 3,600 distinct concrete segments. All of the segments will be cast at the new Casting Yard located at 2401 Front St. using dense concrete for maximum durability.

The Casting Yard, which might better be described as a concrete factory, will house 14 casting machines, each capable of producing one segment per day. The machines will use a process called “match casting” to create each segment. Match casting is a precision manufacturing process that forms each segment to be a perfect fit with the segments that will be installed next to it on the finished bridge. Daily surveys of the site are combined with the original computer designs of the bridge’s geometry to precisely calibrate the match casting process to the nearest .001 foot.

Since each segment is cast to fit in a specific position in the final bridge assembly, they will be sequentially numbered and stored on about 40 acres of space on the Casting Yard site while work is completed on the Crossing’s substructure.

Concrete Segment Fast Facts

Number of Individual Segments: 3,600

Approximate Dimensions of Each Segment:
- 10’ long
- 60’ wide
- 8’ – 12’ deep

Average Weight of Each Segment: 75 – 100 tons

▲ No two segments are exactly alike.
▲ Segments are sequentially cast based on their specific position in the finished Crossing.
▲ Prestressed concrete is up to double the strength of standard roadway pavement.
▲ Segments are cast in the same sequence as they will be erected.
▲ The contractor will erect approximately two spans per week per assembly truss.

Maumee River Crossing Hotline – 419-244-7696 • www.lookuptoledo.org

Image provided by Figg Bridge Engineers
Match Cast Segment Machine (Inside a Building)

Match Cast Segment Machine (Outside a Building)

Stored Precast Segments

Stored Precast Segments

Erection Gantry

Overhead Erection Gantry Drawing