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Jones & Henry
Engineers

International Park CSO Basin City of Toledo

A Toledo Partnership Yields Success for the City
Toledo-based Jones & Henry Engineers teamed with Black & Veatch Corporation for the design and construction engineering of a new combined sewage overflow facility and an underground, concrete storage basin on City of Toledo-owned property in International Park, located on the East side of the Maumee River.

BLACK & VEATCH

The storage basin was designed to capture and store 6.90 million gallons of combined sewage to prevent combined sewer overflow into the Maumee River. The primary storage structure consists of a 5.20 million gallon, below grade, reinforced concrete structure on the International Park Site. The storage basin was fitted with a flushing system, a dewatering pump station, and appurtenant systems. The flushing system uses flushing gates to remove debris accumulated inside the storage basin. Captured combined sewage is stored in the basin and is conveyed to the East Side Interceptor via the dewatering pump station and ultimately to the Bay View Wastewater Treatment Plant for treatment.

Our team at Jones & Henry is proud to provide engineering and construction services that directly support the quality of living for our region.

New concrete diversion / screening structures were constructed on the existing Main Street and Nevada Street outfalls for the purpose of diverting potential overflows from the existing outfalls into the new storage basin. Screening equipment was included in the diversion structures to prevent excessive solids and floatables from being carried into the river. Flows are directed to the storage basin via an 84-inch conveyance sewer (from the Main Street Regulator) and a 108-inch conveyance sewer (from the Nevada Street Regulator). These two conveyance sewers provide the remaining 1.70 mg storage capacity for the facility.

Project Details

Client	City of Toledo
Address	International Park, Eastside of Maumee River, Downtown Toledo, Ohio
Services	Design and Construction
Completion	2019
Reference	Julie Cousino, P.E., City of Toledo Engineering Department Julie.Cousino@ci.toledo.oh.us

A replacement of the undersized Nevada Street Regulator outfall pipe with a new 72-inch by 108-inch concrete box outfall pipe was constructed from the Nevada diversion structure to the Maumee River. Jones & Henry was proud to be part of this integral project to protect our region's waterways.

The structure was designed in accordance with ACI 350 concrete code. To resist groundwater and floodwater buoyancy forces, fourteen feet of soil was placed on top of the basin roof to act as a counter balancing weight. To support the soil, the basin roof was designed as a two-way reinforced concrete slab, supported by concrete columns and walls, following the Equivalent Frame Method of design for increased economics. 19,000 yards of concrete and 2,900,000 pounds of reinforcing steel were used to construct this basin.

Project Team

Gregg Simon, P.E.
Client Principal
40 years experience

Mike Karafa
Project Manager
42 years experience

Paul McNichol, P.E.
Senior Engineer, Electrical
36 years experience

John Nassaux, P.E.
Senior Engineer, Structural
26 years experience

Kyle Brueggemeier
Resident Project Representative
15 years experience

Ben Drill
CAD
18 years experience

Project Support

E.S. WAGNER CO. — CONTRACTORS —

Project Contractor

Vision DESIGN GROUP, INC.

Mechanical and Electrical Support