Oakland-Macomb Interceptor Drain Repair Program (OMID)

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Wednesday March 9, 2011
4:30 – 5:30

CEE Conference Room ~ 2355 GG Brown Lab

The Oakland-Macomb Interceptor Drain (OMID) is a large diameter deep sewer system that serves approximately 1.2 million residents of Southeastern Michigan. This sewer was constructed in-tunnel in the 1970s, and has experienced several catastrophic failures over the years. The system consists of mostly 8 foot to 12.75 foot diameter sewer that ranges in depth from 30 to 110 feet. Based on NTH inspections in 2005 through 2008, many areas of the sewer were found to be in poor condition and subject to sudden failure. Because a sewer failure would be so catastrophic to the population of southeast Michigan, this project became a top priority for the Counties, and the Michigan Department of Environmental Quality. Zach Carr will present NTH Consultants’ work to rehabilitate the sewer system with focus on the geotechnical aspects of the work. These include drop shafts designed using multi-tiered temporary earth retention systems with an upper level of steel ribs and wood lagging and a lower system of drilled piers and concrete ring beams. The rib and lagging systems acted as starter shafts, which allowed construction beneath high power electrical transmission lines with little overhead clearance. The drilled piers were built from within the rib and lagging shafts to retain granular soils and facilitate large vertical spans. Dewatering systems consisting of a variety of groundwater removal methods were used to depressurize the soil overburden and allow shaft construction.

****** Everyone is invited – refreshments will be served ******