

GEOTECHNICAL PROJECT EXPERIENCE – Illinois Department of Transportation

Wang has completed numerous major geotechnical projects throughout the Chicago Area for the Illinois Department of Transportation. Some of the typical projects we have recently completed or are currently working on in the Chicago Area:

Interstate 90/94 at Interstate 290 Circle Interchange

Phase I and II engineering services are required to perform all work associated with the preparation of a Preliminary Engineering and preparation of contract plans and related bid documents for the improvement of I-90/94 and I-290/Congress Parkway in the vicinity of and including the interchange (Circle Interchange).

The project involves evaluating the operation of the interchange and adjacent interchanges, mainline I-90/94 and I-290/Congress Parkway, and the adjacent roadway network as necessary. In addition, the work may include identifying improvements needed to address safety and operational deficiencies, preparation of Access Justification Reports, complete bridge inspections and preparation of Bridge Condition Reports.

The interchange project will include widening and/or reconstruction; structure rehabilitation and/or reconstruction, retaining wall rehabilitation, reconstruction and/or construction; intersection improvements and/or geometric modifications; and arterial road improvements which may include the addition/upgrade of traffic signals and roadway lighting.

Wang has developed the field and laboratory testing programs and will provide the geotechnical engineering analyses and evaluations for the required Roadway Geotechnical Reports (RGRs), and Structure Geotechnical Reports (SGRs).

New Prairie Parkway Alignment

The Illinois Department of Transportation is proposing a new, limited access highway that will connect Interstate 80 to Interstate 88 in the far western suburbs of Chicago. Wang's scope of geotechnical work included the Prairie Parkway mainline alignment from IL 71 to US 34, with several cross roads and two bridge structure and, in addition, Wang provided the geotechnical investigation and analysis for I-80 near Minooka to I-88 near Kaneville, as well as the reconstruction and addition of lanes for IL 47 from I-80 in Morris to Caton Farm Road south of Yorkville. Phase I geotechnical investigations included the Prairie Parkway and IL 47 mainline, ramps, side roads, and bridge and culvert structures.

Illinois Department of Transportation District 1 Various Geotechnical Projects/ Various Locations

As Geotechnical Consultant to IDOT District One, Wang Engineering, Inc. (Wang) provided geotechnical engineering services for various projects under the 1994-1995, 2000-2001, 2006-2007, 2008-2009 and 2010-2011 contracts. The scope of work under each project varied based upon site conditions. Services included general soil survey, peat delineation survey, pavement coring, and sub-base sampling.

Interstate 55 Interchange at Arsenal Road

Wang performed the subsurface investigation, laboratory testing, and geotechnical engineering analyses and evaluations. Analyses and reports were completed for seven roadway alignments and five approach ramps having a total length of 57,000 feet; two multi-span flyover bridges; three retaining walls with exposed heights of 5.0 to 15.0 feet and a combined length of 7,000 feet; and one parking lot. The subsurface investigation consisted of over 1,100 feet of hollow-stem auger drilling and conventional rock coring in 233 boreholes and 43 full-depth pavement cores.

Interstate 80 Widening US Route 30 to US Route 45

Wang developed, managed, and completed the field and laboratory testing programs and geotechnical engineering analyses and evaluations for the widening an 8.14-mile long section of I-80. Phase II engineering services included roadway and structure design plans for the widening of the nine-span twin bridges over US 30, bridges over the Rock Island District Railroad, Hickory Creek, Old Plank Trail bridge over US 30, and the reconstruction the Interstate 80 interchange at US 30.