



## Firm Profile

**I. S. Engineers, LLC (ISE)** is a Houston-based firm specializing in transportation engineering. Established in 2009 as a full-service consulting engineering firm, **ISE** offers design services in highway, roadway and streets design, drainage design including hydraulic and hydrologic studies, bridge design, traffic engineering design, operations and modeling as well as project and program management. With 11 professional engineers and staff of EITs, CADD technicians, and administrative support, ISE brings over 150 years of engineering experience in transportation engineering and infrastructure design. Our goal is to provide innovative transportation solutions with an emphasis on cost savings.

We pride ourselves in implementing innovative ideas in roadway engineering and bridge design and have saved clients such as Texas Department of Transportation millions of dollars in construction costs. Our staff has worked on City of Houston projects, Harris County, Port of Houston, as well as other surrounding cities in the country and brings in-depth knowledge and experience in designing bridges, city streets, drainage systems, paving projects, and other related civil engineering design with excellent quality plans on time and under budget.

**ISE** has extensive experience in roadway design including horizontal and vertical geometric design, development of typical sections, signing and pavement marking design, ROW requirement determination, utility relocation plans, stormwater permits, traffic control for construction sequencing, control of access requirements, signing, and pavement marking.

**ISE** has extensive experience in drainage hydraulic evaluation and design including: floodplain analysis, reservoir and channel routing, bridge hydraulic design, scour analysis, impact analysis, detention basin design, and storm water quality evaluation. BMP design using the latest methodology and software (HEC 1, HEC 2, HEC HMS, HEC RAS, NRCS – TR 20 and TR 55, Winstorm, GEOPAK Drainage, HY8 and XP-SWMM). We have extensive experience in the design of drainage facilities from small diameter concrete pipe storm sewers, up to large multiple box culverts, including all manholes, inlets, headwalls, and wingwalls.

**ISE** has extensive experience in bridge design including layouts and designs for total reconstruction and widening for Underpass Structures, Overpass Structures, Creek Crossings, and Box Culverts. We have extensive experience in the design of bridge replacement and widening projects as minor and major roadway projects using AASHTO LRFD Design Code using HL93 Loading. We have designed minor structures using prestressed concrete I beams, U beams, TX beams, box beams, slab beams, double and single T beams, steel wide flange beams, steel plate girders, and pan girders. We understand the special issues in preparing the design for a Minor Bridge Design including bridge widening requirements, optimizing the geometry for efficient span lengths and unit layouts, bent placement, and optimizing vertical clearances, structure thicknesses and other critical issues such as footing placements, minimizing utility conflicts, and constructability.