

## DRAINAGE ENGINEER- HOUSTON & SAN ANTONIO OFFICE

## QUALIFICATIONS/REQUIREMENTS:

Capabilities should include knowledge of drainage analysis and design using drainage software to prepare drainage studies/reports and drainage designs. Should be familiar with TxDOT Hydraulic Design Manual and Roadway Design Manual, City of Houston design criteria, Harris County design criteria, and Harris County Flood Control District design criteria.

- 7-10 years of previous drainage analysis and design experience on transportation projects including preparation of Plans, Specifications, and Estimates (PS&E).
- Texas Licensed Professional Engineer, or eligible for licensure within 6 months.
- Experience in drainage design for TxDOT, County, and local transportation agencies.
- Experience with drainage analysis software including GeoPak Drainage, HEC-RAS, HEC-HMS, HY-8, SWMM (XP preferred).
- Proficient with TxDOT Hydraulic Design Manual and standards.
- Experience with MicroStation required, GIS preferred, and GeoPak/OpenRoads experience is a plus.
- TxDOT precertification in Hydrologic Studies, Roadway Hydraulic Design, Bridge
  Hydraulic Design, and Bridge Scour Evaluation & Analysis preferred or able to obtain
  within one (1) year. Precertification in all other drainage categories a plus.
- Familiarity with Microsoft Office Suite.
- Good communication skills and ability to work within a team environment.

## **DUTIES**

- Preliminary and final drainage designs for transportation projects such as State roadways/highways, toll roads, county roads, and city streets.
- Perform drainage analysis using hydrologic & hydraulic software to prepare drainage studies/technical report for project to include drainage area determination, runoff determination, detention and channel routing, bridge hydraulic analysis, and design.
- Perform hydraulic analysis and prepare drainage system designs for storm sewers, gutter flow (analysis), open ditches, culverts, and detention ponds.
- Experience with SUDA.
- Assist with writing proposals, scopes of work, and budgets for projected work.
- Experience with managing & mentoring staff, and direct resources effectively.
- Assist with client relations and business development.
- Coordinate efforts of subconsultant(s) and other disciplines.
- Perform work within budget and schedule.
- Prepare cost estimates.