

Resume



TREY HAIR

Engineering Technician

Education

AS. Engineering Technology, Midlands Technical College

Experience Highlights — Mr. Hair is an engineering technician with 17 years of experience who supports CSE's professional engineers and geologists in projects pertaining to beach nourishment, groin and jetty design, revetments and seawalls, inlet relocations, and waterfront and marina designs. He performs profile analysis from collected and/or existing data, historical shoreline assessments, topographic and bathymetric data compilation, volume calculations, erosion assessments, and sediment transport studies.

As CSE's CAD manager, Mr. Hair utilizes numerous data-based, land-development software programs in design of coastal engineering projects including beach nourishment, groins, jetties, seawalls, and inlet relocations. He maintains CSE's database of annual monitoring projects in several southeastern locations including South Carolina sites (Seabrook Island, Folly Beach, Kiawah Island, Myrtle Beach, Hunting Island, Edisto Island) and North Carolina sites (Bogue Banks, Ocean Isle Beach, Nags Head, Kitty Hawk, Buxton, Hatteras Is). He uses ArcMap GIS software to assess shoreline changes, to support FEMA flood studies, to conduct spatial analysis, and to determine changes in the landscape and littoral zones. Mr. Hair has also served as an expert CAD/survey analyst in support of court cases involving erosion.

Mr. Hair has extensive data collection experience, including field investigations of project sites, installation of coastal engineering instrumentation, and collection of samples for testing. Mr. Hair is proficient in survey processes from initial setup of projects to data reduction and map production.

Mr. Hair's responsibilities include obtaining state and federal permits, production of all of CSE's construction plans/specifications and processing collected data. He has extensive experience in large projects, including two of the largest locally funded beach nourishment projects ever completed along the U.S. East Coast at Bogue Banks (NC) and Nags Head (NC) including the placement of ~6 million cubic yards of nourishment fill.

Mr. Hair has performed underwater assessments of revetments, seawalls, and coastal structures, as well as reconnaissance surveys for a directional-drilling project. He has logged over 500 dives to collect sediment samples and set coastal analysis instrumentation for the study of tides, waves, and currents (ADP, MD, XR, mini-wave, etc).

Major Projects

Cooper River Bridge Hydrographic Study
Asharoken Erosion Case
Bogue Banks (NC) Nourishment
Hunting Island (SC) Nourishment
Edisto Beach (SC) Nourishment and Groin Repair
Nags Head Beach (NC) Nourishment
Folly Beach (SC) Groin Design
Al Khiran Monitoring (Kuwait)
Kiawah Island (SC) Beach Restoration
Edisto Island (SC) Nourishment
Isle of Palms (SC) Beach Restoration
Seabrook Is (SC) Capt Sams Inlet Relocation
Sagaponack Beach (NY)
Bridgehampton Beach (NY)
Buxton, Dare County (NC)

Certifications

PADI Open-Water Certified Diver/ TDI Nitrox
Engineering Graphics (MTC)
3-D Design (MTC)
Civil Design (AutoDesk™ University)
AutoCAD Civil 3D Certified Professional

Memberships

AUGI AutoDesk User Group International
AutoDesk Certified Professionals

Software Program Capabilities

AutoDesk Civil 3D/Map/Raster Design
AutoDesk Infrastructure Design Suite
ESRI ArcMapGIS
Trimble/HyPack
Global Mapper (Blue Marble)