



## Terrance Zich

**PE, PG, CPG**

### Senior Managing Engineer

#### Department

Engineering Services

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#### Locations

Orlando, FL

## Biography

Terrance Zich is a Senior Managing Engineer with YA Engineering Services, Inc. (YAES). His work focuses on solving complex problems related to his geotechnical engineering, environmental engineering, and geological experience. He has extensive forensic experience in cases involving environmental, geotechnical, and geological assessments. The forensic assessments include the evaluation of near surface foundation sub-grade and deep soil conditions as revealed in soil borings and geophysical testing, together with the observed details of structures for the evaluation of the soil characteristic relationship to the appearance of recorded distress. This information is used to form an opinion of the apparent cause or causes of reported distress from problematic subsurface conditions, including but not limited to sinkholes, shrink/swell clays, collapsible soils, organic and other buried debris, landslides, and other soil failure events. Mr. Zich has been involved with builder's risk and construction defect investigations with regards to soils type, associated soils work, and earth movement. Mr. Zich has provided sworn affidavits, depositions, advice, and testimony as part of litigation support services and has performed peer review of studies performed by other consulting firms. Mr. Zich has conducted soils associated work and other environmental, geological, and geotechnical projects across the United States, as well as in Canada, Mexico, Australia, Belgium, Thailand, Trinidad & Tobago, and Vietnam. Mr. Zich has experience in directing projects related to municipal solid waste landfill contamination issues (groundwater and landfill gas), site suitability studies, mine site studies, hazardous waste site cleanup, SWPP Plans, SPCC Plans, watershed studies, water resources studies, hydrogeological studies, wetland issues, all phases of Environmental Site Assessments (including large tracts of timberlands with over 2 million acres assessed) and other environmental, subsurface and groundwater hydrology related projects. He has directed projects related to Geotechnical engineering design, construction material testing and inspection, non-destructive testing, drilling operations and engineering geology. Mr. Zich joined YAES in 2021. Prior to joining YAES, he spent eleven years at Envista Forensics as Technical Field Supervisor/Senior Engineer/Geotechnical Lead.

## Credentials

- PE | Professional Engineer
- PG | Professional Geologist
- CPG | Certified Professional Geologist
- EurGeol | European Geologist

## Representative Consulting Assignments

- Energy Center | Jessup, Pennsylvania | Site investigation and review of documents related to structure settlement related to ground improvement using deep dynamic compaction of mine spoils, complicated by buried landfill debris and included a remediation review
- Mine Site | Miami AZ | Cause and origin of excess erosion on man-made

stream channel diversion

- Townhouse Residential Development | Lake Mary, Florida | Construction defect litigation as it relates site related to soil preparation earthwork development including deposition
- Mid-rise Hotel | Chelsea, Massachusetts | Construction defect regarding settlement of 5-story hotel with regards to a ground improvement method of soft soils using a Ram Aggregate Pier foundation support
- Bridge Pier Foundation Construction | Westchester County, New York | Addressed cause and origin of failed pier during construction and review of remediation plan
- Healthcare Center | Pahrump, Nevada | Addressed settlement issues as it related to problematic collapsible soils
- Tunnel construction | Vietnam | Cause and origin of tunnel collapse
- Landslide | Pittsburg Pennsylvania | Cause and origin of landslide on slope behind high-rise apartment buildings
- Townhouse Residential Development | Longmont, Colorado | Construction defect litigation as it relates to subgrade preparation of roadways and driveways with regards to expansive (shrink-swell) clay problematic soils including deposition
- Residential Building | West Melbourne Florida | Construction defect litigation as it relates discovery of buried debris including deposition
- Residential Development Area | Casper, Wyoming | Construction defect related to expansive and collapse soil, review of documents and consideration of standard of care issues with civil/geotechnical design engineers
- Healthcare Center | Houston, Texas | Construction defect review with regards to treatment of expansive (shrink-swell) clay problematic soils
- Sinkhole | Florida, Pennsylvania and Tennessee including field subsurface investigations, reports including remediation plans, including multiple depositions and trial testimony

## Professional Experience

- 2021 - Current | Senior Managing Engineer | YA Engineering Services
- 2018 - 2021 | Senior Project Engineer - Geotechnical Lead | Envista Forensics - Orlando, FL
- 2010 - 2018 | Geotechnical Field Supervisor | Envista Forensics - Orlando, FL
- 2009 - 2010 | Senior Engineer | HSA Engineers and Scientists - Altamonte Springs, FL
- 2007 - 2009 | Regional Manager | Giles Engineering Associates, Inc. - Sanford, FL
- 2006 - 2007 | President | ES Geotechnologies - Milpitas, CA
- 2005 - 2006 | Environmental Group Leader | TTL, Inc. - Albany, GA
- 1997 - 2005 | Vice President / Senior Project Manager / Senior Associate | Tribble & Richardson / DSAtlantic / Stantec Consulting - Macon, GA
- 1996 - 1997 | Owner / Manager | Z Environmental and Geological Engineering - Bismarck, ND
- 1993 - 1996 | Branch Manager | Twin City Testing / Huntingdon Engineering and Environmental / Maxim Technologies - Bismarck, ND
- 1989 - 1993 | Branch Manager | Braun Engineering / Braun Intertec - Bismarck, ND
- 1979 - 1989 | Senior Environmental Engineer / Hydrologist | The North American Coal Corporation / The Coteau Properties Company - Bismarck, ND

- 1979 - 1979 | Water Resources Engineer | City of Denver - Denver, CO
- 1978 - 1979 | Environmental Engineer | North Dakota Public Service Commission - Bismarck, ND

## Area of Practice

- Damage Assessment
- Failure Analysis
- Litigation Support
- Repair and Rehabilitation Design

## Publications and Presentations

- Terrance Zich, Geological Engineering Aspects of Underground Construction, Envista Asia-Pacific and Oceania Webinars
- Terrance Zich, General Sinkhole Geology of Florida as it Relates to Florida Statute Chapter 627, Southwest Florida Claims Association Meeting, Fort Myers, FL
- Terrance Zich, Mining Investigations September, Envista US Webinar Presentations
- Terrance Zich, Retaining Wall Failures, Envista Asia-Pacific and Oceania Webinars
- Terrance Zich, How to Read a Geotechnical Report, Orlando, FL
- Terrance Zich, Mining Investigations, Envista Asia-Pacific and Oceania Webinars
- Terrance Zich, Geological and Engineering Aspects of Sinkhole Development, Worley Claims Conference
- Terrance Zich, General Sinkhole Geology of Florida as it Relates to Florida Statute Chapter 627, Orlando Claims Association Meeting, Orlando, FL
- Terrance Zich, Environmental Claims, Envista US Webinar Presentations
- Terrance Zich, General Sinkhole Geology of Florida, North Dakota Geological Society,, Bismarck, ND
- Terrance Zich, Understanding Geophysics for Claims Investigation, Envista US Webinar Presentations
- Terrance Zich, Soils Mechanics for Claims Professionals: Geological and Engineering Aspects of Problematic Soil Conditions, Envista US Webinar Presentations
- Terrance Zich, Strategies for Handling Complex Tunneling & Underground Construction Claims, Envista US Webinar Presentations
- Terrance Zich, Geological and Engineering Aspects of Sinkhole/Problematic Soil Conditions, Envista US Webinar Presentations
- Terrance Zich, Tunneling Underground Construction Claims, Envista Asia-Pacific and Oceania Webinars
- Terrance Zich, Soil Contamination & Groundwater Claims, Envista US Webinar Presentations

## Education

- University of Colorado, Colorado State University, University of North Dakota, and Mary College - Graduate Courses - Geology, Hydrology, Engineering
- University of North Dakota - Bachelor of Science - Geological Engineering, Magna cum laude - Grand Forks - North Dakota
- North Carolina State University, Stream Restoration Institute - River Courses 1 & 2 - Raleigh - North Carolina

## Affiliations

- American Society of Civil Engineers
- American Institute of Professional Geologists
- European Federation of Geologist

## Licenses

- 33190 - Alabama - Professional Engineer
  - By Certification - Alaska - Professional Geologist
  - 74569 - Arizona - Civil Engineer
  - 50373 - Colorado - Professional Engineer
  - By Definition - Colorado - Professional Geologist
  - 67000 - Florida - Professional Engineer
  - 2715 - Florida - Professional Geologist
  - 24381 - Georgia - Professional Engineer
  - 1437 - Georgia - Professional Geologist
  - 31018 - Kentucky - Professional Engineer
  - 56675 - Massachusetts - Civil Engineer
  - 44208 - North Carolina - Professional Engineer
  - 3154 - North Dakota - Professional Engineer
  - By Definition - Oklahoma - Professional Geologist
  - 84114 - Pennsylvania - Professional Engineer
  - 18895 - South Carolina - Professional Engineer
  - 116194 - Tennessee - Professional Engineer
  - 4423 - Tennessee - Professional Geologist
  - 22668 (Geological) - Texas - Professional Engineer
  - 11696027-2202 - Utah - Professional Engineer
  - 402063628 - Virginia - Professional Engineer
  - 2185 - Wyoming - Professional Geologist
  - 17603 (Geotechnical) - Wyoming - Professional Engineer
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