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Client Focused. Technology Driven.

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# Introduction

## The Fenstermaker Difference

We understand that providing great customer service is a crucial part of every job. Our team members know that client satisfaction does not happen by accident. It happens by design. We grow as a company only by earning the positive feedback, respect and repeat business of our clients. Our customers are our partners, and we conduct business every day with that simple fact in mind.

## Our History

Founded in 1950 by Charles Howard Fenstermaker, Jr., Fenstermaker began as a small surveying and mapping company in New Iberia, Louisiana. Charles was the son of C. H. Fenstermaker, Sr., also a surveyor, who started his career in Louisiana in the early 1900s. Initially, the firm performed surveying and mapping almost exclusively for oil and gas clients. Today, the company's Chairman and CEO is William H. Fenstermaker, son of Charles Howard Jr., and the third generation to continue the family legacy. Fenstermaker has grown into a diverse consulting company capable of handling projects requiring the expertise of one discipline or the combined efforts of several teams. An established and respected organization, Fenstermaker offers engineering, surveying and mapping, environmental consulting and specialized services. The firm serves a diverse mix of clients including local, state, and federal governments, agencies and corporations representing various industries.

Fenstermaker's early commitment to automated mapping kept the firm at the forefront of survey and mapping technology. Throughout the growth of the company, including the addition of the Engineering and Environmental Divisions, Fenstermaker's dedication to technological advancements set it apart from the competition. The firm's introduction of "smart maps" in the mid '80s paved the way for advanced computer mapping techniques and Geographic Information Systems software. In recent years the company has developed at a rapid pace offering diverse, yet complimentary, services to provide innovative solutions for their clients.

As the company continued to grow and diversify, there was a marked acceleration in volume of work and geographic reach. To manage this rapid growth, Dr. Kam Movassaghi, P.E., joined Fenstermaker as its new President. A well-respected engineer, businessman, and educator, Dr. Movassaghi led the company while solidifying its commitment to excellence and client satisfaction.

Today, Fenstermaker continues to grow and diversify and embraces a culture of providing quality services, innovative solutions and exceptional customer service.

In January of 2015, Dr. Movassaghi retired after 10 years of service to the company and current President Alex Lincoln was appointed to the leadership role.





## **Energy**

The energy industry has evolved dramatically over the years. Procurement from new sources and an increase of government regulations have made the process more challenging than ever.

At Fenstermaker, we combine more than 60 years of experience supporting the oil and gas industry with an innovative approach that addresses project efficiency, safety, and compliance in the diversifying energy market. Combining critical services with an emphasis on client satisfaction, Fenstermaker is well-qualified and committed to the success of our energy clients.

### **Survey & Mapping**

Oil & Gas Surveys  
Pipeline Surveys • Routing & Planning  
Geographic Information System (GIS) • Land Management

### **Environmental**

Permitting  
Environmental Documentation  
NEPA Assessments  
Natural Resources Management  
Compliance Reporting  
Litigation Support

### **Advanced Technologies**

3D Laser Scanning  
Intelligent 3D Modeling

### **Engineering**

Oil & Gas Flood Risk Management



Founded in 1950 as a surveying firm, Fenstermaker has established an extensive catalogue of field intelligence throughout our long history and experience in the energy industry. Over time, the company has built a large collection of survey maps and related information, making this foundation of data hugely beneficial to our clients.



## **Municipal**

Fenstermaker has extended experience partnering with municipalities to solve complex challenges in support of growing populations and economies. With four areas of expertise offering professional services in survey & mapping, engineering, environmental services, and advanced technologies, Fenstermaker is well-positioned to assist municipalities in planning for future progress and growth.

## **Engineering**

### Planning

- Socio-economic Research
- Complete Streets & Corridor Studies
- Land Development Regulations
- Land Use
- Infrastructure Planning
- Master Planning & Site Design
- Comprehensive Planning
- Visualizations & Mapping
- Public Relations & Public Outreach

### Design

- Roadways & Roundabout Design
- Bridge Design
- Water Treatment Facilities
- Hydrologic & Hydraulic Analysis and Design
- Geotechnical Design

### Municipal Management

- Water System Planning & Design
- Sewer System Planning & Design
- Parks and Recreation Planning & Design
- Construction Management

## **Survey & Mapping**

Topographic & Boundary Surveys

Right-of-Way Plats

Construction Surveys & Stakeout

FAA Airport Surveys

Aerial Basemaps

GPS Positioning

Subsidence Surveys

Geographic Information Systems (GIS)

## **Environmental**

### NEPA Assessments

- Environmental Assessments (EA)
- Environmental Impact Statements (EIS)
- Categorical Exclusions (CE)

### Natural Resources Management

- Delineation of Wetland Boundaries
- Wetland Permitting & Mitigation
- Threatened & Endangered Species Surveys

### Litigation Support

- Historical Site Reconstruction
- Data Analysis & Display
- Expert Witness Testimony

## **Advanced Technologies**

### High Definition Laser Scanning

- HD Surveys of Roads, Bridges, and Infrastructure
- Historical Preservation

### As-Built Modeling

- Intelligent 3D modeling
- Building Information Models (BIM)
- Spherical Imaging
- Critical Lift Animation





Committed to the future development of the communities in which we live, Fenstermaker partners with municipalities to help local areas expand seamlessly. Involved every step of the way, from public planning meetings to construction administration, Fenstermaker maintains a close, hands-on approach when working with local governments to support municipal growth.



## **Commercial Development**

Fenstermaker's engineering, environmental, surveying, and advanced technology experts effectively help clients achieve their goals in commercial development. Our specialized services, such as planning and design, architectural support, land development, land surveys, regulatory compliance, and construction, provide developers a comprehensive blueprint of optimum methods to actualize their vision. Our team will guide you through the various levels of regulations and design codes to lead your development plans through local, state, and federal approval processes. Our talented team members are committed to clearly communicating your objectives and coordinating events with the public to advance your project's success.

## **Engineering**

- Transportation Planning & Design
- Water Resources Management
- Municipal Management
- Land Planning
- Water Supply, Treatment & Storage
- Sewer Collection & Treatment
- Construction Administration

## **Survey & Mapping**

- Bathymetric Surveys
- Aerial Base Maps
- GPS Positioning
- Subsidence Surveys
- Litigation Support
- Construction Surveys & Stakeout
- Pipeline Location
- Geographic Information Systems (GIS)

## **Environmental**

- Permitting
- Wetland Regulatory Compliance
- Federal, State & Local Authorizations
- Air Emission Permits
- Water Discharge Permits
- Flood Plain Evaluation Permits
- Environmental Documentation
- Environmental Audits
- NEPA Assessments
- Feasibility Studies
- Natural Resources Management
- Litigation Support

## **Advanced Technologies**

- High Definition Laser Scanning (SurvHDS)
- Dimensional Control (SurvDC)
- Underwater Acoustic Services (SurvH<sub>2</sub>O)
- Building Information Model (SurvBIM)



Fenstermaker's engineering team has a long history of partnering on commercial developments. Bringing specialized expertise to the table, our engineers roll up their sleeves to work side by side on a project until its successful completion.



## **Transportation**

Fenstermaker delivers innovative solutions for contemporary transportation systems. We approach today's transportation problems from four diverse perspectives - engineering, survey & mapping, environmental consulting, and advanced technologies. Using key services from these disciplines to address public needs, our experience, ingenuity, and integrity make us a valuable asset to our transportation clients.

## **Engineering**

### Planning

- Comprehensive Plans
- Socio-economic Research
- Public Outreach

### Design

- Roadway & Roundabout design
- Bridge Design
- Hydrologic & Hydraulic Analysis and Design
- Geotechnical Design
- Line & Grade Studies
- Feasibility Studies

## **Survey & Mapping**

### Topographic & Boundary

### Construction Surveys & Stakeout

### Right-of-Way Plats

### FAA Airport Surveys

### Aerial Basemaps

### GPS Positioning

### Subsidence Surveys

### Pipeline Location

### Geographic Information Systems (GIS)

## **Environmental**

### NEPA Assessments

- Environmental Assessments (EA)
- Environmental Impact Statements (EIS)
- Categorical Exclusions

### Natural Resources Management

- Delineation of Wetland Boundaries
- Wetland Permitting & Mitigation
- Threatened & Endangered Species Surveys

### Litigation Support

- Historical Site Reconstruction
- Data Analysis & Display
- Expert Witness Testimony

## **Advanced Technologies**

### High Definition Laser Scanning

- HD Surveys of Roads, Bridges, and Infrastructure
- Historical Preservation

### As-Built Modeling

- Intelligent 3D Modeling
- Spherical Imaging
- Critical Lift Animation

### Underwater Acoustic Imaging

- Bridge Pier & Piling Inspection
- Scour Investigation
- Dam Inspection



Today, contemporary transportation issues require a new approach. Engineering firms must consider environmental, social, and economic impacts when determining a project's feasibility and influence. At Fenstermaker, we are cognizant of this and integrate various services to fulfill public needs in a professional, ethical manner.



## **Water Resources**

Fenstermaker has a talented group of experienced professionals on our Water Resources team. From coastal design and restoration to hydrologic and hydraulic design and analysis, our surveyors, engineers and environmental team members work diligently to make the most of every project. Fusing expertise in government regulations with advanced technologies and innovative methods, Fenstermaker can successfully complete complex restorative and protective projects for clients.

## **Engineering**

Coastal & Riverine Engineering  
Water Resources Engineering  
Oil & Gas Flood Risk Management

## **Environmental**

Wetland Permitting  
Wetland Delineations  
Wetland Mitigation  
Threatened & Endangered Species Surveys  
NEPA Assessments  
Due Diligence Audits  
Greenhouse Gas Reporting  
Air Permitting/Compliance  
Water Permitting/Compliance  
Production Manuals  
Ecosystem Management  
Federal, State & Local Permitting

## **Survey & Mapping**

Bathymetric & Topographic Surveys  
Hydrographic Surveys  
Subsidence Surveys  
Aerial Basemaps  
GPS Positioning  
Unit Surveys  
Geodetic Control Surveys  
Well Locations  
Litigation Support  
Geographic Information Systems (GIS)

## **Advanced Technologies**

High Definition Laser Scanning  
Underwater Acoustic Services

- Inspection of Underwater Structures
- Investigation following Natural Disasters
- Diver Assistance for Debris Recovery



To preserve the irreplaceable resources of the earth, government agencies regulate actions concerning the environment. Fenstermaker, in its commitment to the future, stays cognizant of new and evolving conservation policies to effectively manage projects with potential environmental impacts.



## **Industrial**

Fenstermaker provides professional services to a wide array of industries. Our diverse services give our clients the advantage of working with one company for surveys, environmental consulting, engineering, and advanced technologies. With over 60 years of experience and a reputation for innovative work, Fenstermaker provides clients with complete and complimentary services to enhance project success.

## **Engineering**

Water Resources Engineering  
Land Planning  
Structural  
Water Treatment & Storage  
Sewer Collection & Treatment  
Construction Administration

## **Survey & Mapping**

Site Surveys  
Pipeline Surveys  
Geographic Information Systems (GIS)

## **Environmental**

Permitting  
Environmental Documents  
NEPA Assessments  
Natural Resources Management  
Litigation Support

## **Advanced Technologies**

High Definition Laser Scanning (SurvHDS)  
Dimensional Control (SurvDC)  
Underwater Acoustic Services (SurvH20)





Fenstermaker utilizes the highest quality metrology hardware and software as well as highly qualified surveyors and technicians to create a specialized package for each client. We have years of survey experience in the Industrial sector and can provide innovative solutions for a diverse group of clients.







## Engineering

With over three decades of engineering expertise, Fenstermaker is known for delivering innovative, dependable service. Our skilled team of engineers, inspectors, and CAD technicians and drafters consistently produces quality work by focusing on ingenuity, efficiency and practicality. Professionally licensed to work throughout the region, our engineers apply their diverse expertise to a wide range of projects. Evaluating every aspect, they effectively integrate different project features, from aesthetics and budgeting to the lifeline of the design. When it comes to transportation and infrastructure, Fenstermaker takes engineering to the next level.

### Transportation Planning & Design

- Roadway Design
- Roundabout Design
- Feasibility Study
- Hydraulic Design
- LADOTD Feasibility Study
- Line & Grade Studies
- Corridor Planning
- Program Management
- Bicycle and Pedestrian Planning
- Traffic & Transportation Studies
- Corridor Planning and Streetscaping
- Topographic & Boundary Surveys
- NEPA and Related Services – Categorical Exclusions, EA, and EIS

### Coastal & Riverine Engineering

- Coastal Restoration Design & Inspection
- Hydraulic & Hydrologic Numerical Modeling
- Hydraulic, Hydrologic & Water Quality Data Collection
- Hydrodynamic & Sediment Transport Modeling
- Marsh Management
- Bathymetric & Topographic Surveys
- Hydraulic Structures Design and Analysis
- Flood Control Structures Design and Analysis

### Water Resources Management

- Watershed Analysis and Management
- Hydrologic & Hydraulic Design and Analysis
- Hydraulic, Hydrologic & Water Quality Data Collection
- Stormwater Management
- Flood Control Structures Design
- Drainage & Water Quality Design
- Flood Control & Inundation Maps
- Stream Assessment & Restoration Design
- Natural Channel Design
- Drainage Planning & Design
- FEMA Flood Hazard Modeling & Management

### Oil & Gas Flood Risk Management

- Comprehensive Hazard Assessment Mapping Products (CHAMP)
- Floodplain Development Notifications
- Professionally Certified FEMA Floodplain Development Permits (FDP)
- Certificate of No-Adverse Impact
- Flood Elevation Certificates
- Flood Control & Culvert Design Plans
- Regional Flood Risk Master Planning
- FEMA Permitting for Entire Units
- No-Rise Certificates

### Municipal Management

- Land Development Planning & Review
- Infrastructure Planning & Design
- Parks & Recreation Planning & Design
- Drainage Management & Design
- Geographic Information Systems (GIS)
- Grant Management

### Land Planning

- Annexation
- Community Planning and Urban Design
- Master Planning
- Residential & Commercial Planning & Design
- Infrastructure Planning & Design
- Value Engineering

### Structural

- Bridge Design & Rating
- Building Design using Revit®
- Foundation Design Analysis for Oil & Gas and Petrochemical Industries
- Design in Support of Oil & Gas and Petrochemical Industries

### Geotechnical

- Site Preparation (Earthwork) Specifications
- Roadway Soil Surveys
- Pavement Design (AASHTO 1993)
- Overlay Design
- Shallow Foundation Design
- Deep Foundation Design
- Conventional Slope Stability Analyses
- USACE Method of Planes Slope Stability Analyses
- Levee Design
- Levee Construction Verification
- Levee Recertification
- Earthen Dam Design, Repair & Inspection
- MSE Wall Design Levee

### Water Supply, Treatment and Storage

- Comprehensive Water System Planning
- Water Treatment Facilities/ Upgrades
- Water Wells and Booster Pumps
- Water Transmission and Distribution
- Water Storage Tanks
- Automated Meter Reader Systems
- Utility Rate Studies

### Sewer Collection and Treatment

- Wastewater Collection and Lift Stations
- Wastewater Treatment Facilities
- Utility Relocation Management
- Sewer System Planning

### Construction Administration

- Inspection & Documentation
- Scheduling
- Cost Estimates
- Constructability Reviews



At Fenstermaker, we focus on improving current conditions and developing new infrastructure to provide innovative, long-term solutions. For decades, this philosophy has made us the reliable choice for engineering projects of any scale.



## Environmental Consulting

Fenstermaker's experienced team of environmental specialists is well-prepared to navigate you through the regulatory process. Knowledgeable of the ever-changing policies and procedures concerning the environment, our professionals can improve your project efficiency by successfully leading you through the complex requirements. We monitor your project at every stage to minimize potential risks and delays. By maintaining strong working relationships with state and federal agencies, we are well-positioned to both meet your objectives and keep your projects within guidelines.

### Permitting

- Wetland Regulatory Compliance
  - Corps of Engineers Section 10/404 Permits
  - Coastal Use Permits
- Federal, State & Local Authorizations
- Air Emission Permits
  - Minor Source
  - Major Source
  - Exemption Determinations
  - Variations
  - Rule 32 Exceptions (Flare)
- Water Discharge Permits
  - General Coastal Discharge Permits
  - Hydrostatic Test Permits
  - Multi Sector General Permits
  - Storm Water Pollution Prevention Plans (SWPPP)
- Flood Plain Evaluations & Permits

### Environmental Documentation

- Production Manuals
  - Spill Prevention Control & Countermeasure Plans (SPCC)
  - Facility Response Plans (FRP)
  - Operations Manuals
  - Integrated Contingency Plans (ICP)
- Site Characterizations
- Environmental Audits
  - Phase I
  - Due Diligence
  - Compliance History

### NEPA Assessments

- Categorical Exclusions (CE)
- Environmental Assessments (EA)
- Environmental Impact Statements (EIS)
- Feasibility Studies

### Natural Resources Management

- Delineation of Wetland Boundaries
- Threatened & Endangered Species Surveys
- Wetland Mitigation
- Oyster Assessments

### Compliance Reporting

- Facility Inventory Reporting
  - Annual Air Emissions Reporting (ERIC, STEERS)
  - Discharge Monitoring Reports
  - Sara Title III - Tier II Chemical Inventory Reporting
- Greenhouse Gas Reporting (Subpart W)

### Pipeline Reporting

- T-4 Submittals
- National Pipeline Mapping System Submittals

### Office of Conservation Compliance

- Permit to Drill Oil & Gas Wells & Amendments
- Fresh Water Well & Frac Supply Well Permits
- Work Permits
- Completion Packages
- Allowable & R-4
- Monthly & Semiannual Reporting
- Survey Plat Submittals
- Plug & Abandonment Packages
- Site Clearance Applications & Verifications

### Injection & Mining

- Saltwater Disposal Well Permitting
- Annular Disposal Well Permitting
- Injection Well Work Permits
- Injection Well History Reports
- Injection Well Plug & Abandonment Reports

### Railroad Commission of Texas

- Permit to Drill Oil & Gas Wells & Amendments
- TCEQ- Water Board Letter Requests
- H-9 Applications
- Applications for Alternate Surface Casing
- P-8 & P-4 Filings
- T-4 Filings
- Rule 32 Exceptions
- Completion Packages

### Litigation Support

- Data Processing
- Document Review
- Expert Witness Testimony
- Historical Site Reconstruction
- Courtroom Exhibits
- Secure Web-based Map Access



Fenstermaker's experienced team of environmental specialists is well-prepared to navigate you through the regulatory process. Knowledgeable of the ever-changing policies and procedures concerning the environment, our professionals can improve your project efficiency.



## **Survey & Mapping**

For more than 60 years, Fenstermaker has maintained its leadership in the field of survey & mapping by focusing on the right balance of expertise, experience, advanced technologies, and commitment to quality. Our talented surveying team comprises registered Professional Land Surveyors (PLS), field crew, technicians, CAD operators, drafters, and operational support. Continuing our reputation for professional services and excellent customer service, we work hard together to achieve success on your project

### **Oil & Gas Surveys**

- Well Locations
- Unitization Surveys
- State Lease Nominations
- Flowline Surveys
- Magnetometer Surveys
- Bathymetric Surveys
- Aerial Base Maps
- GPS Positioning
- Subsidence Surveys
- Environmental Consulting
- Regulatory Compliance
- Project Planning
- Litigation Support

### **Pipeline Surveying**

- Routing & Planning
- Construction
- As-Built
- DOT Pipeline Surveys
  - Depth of Cover Surveys
  - Navigable Water Surveys
  - Pipeline Integrity & Inspection Surveys
- Environmental Consulting
- Regulatory Compliance
- Pipeline Location

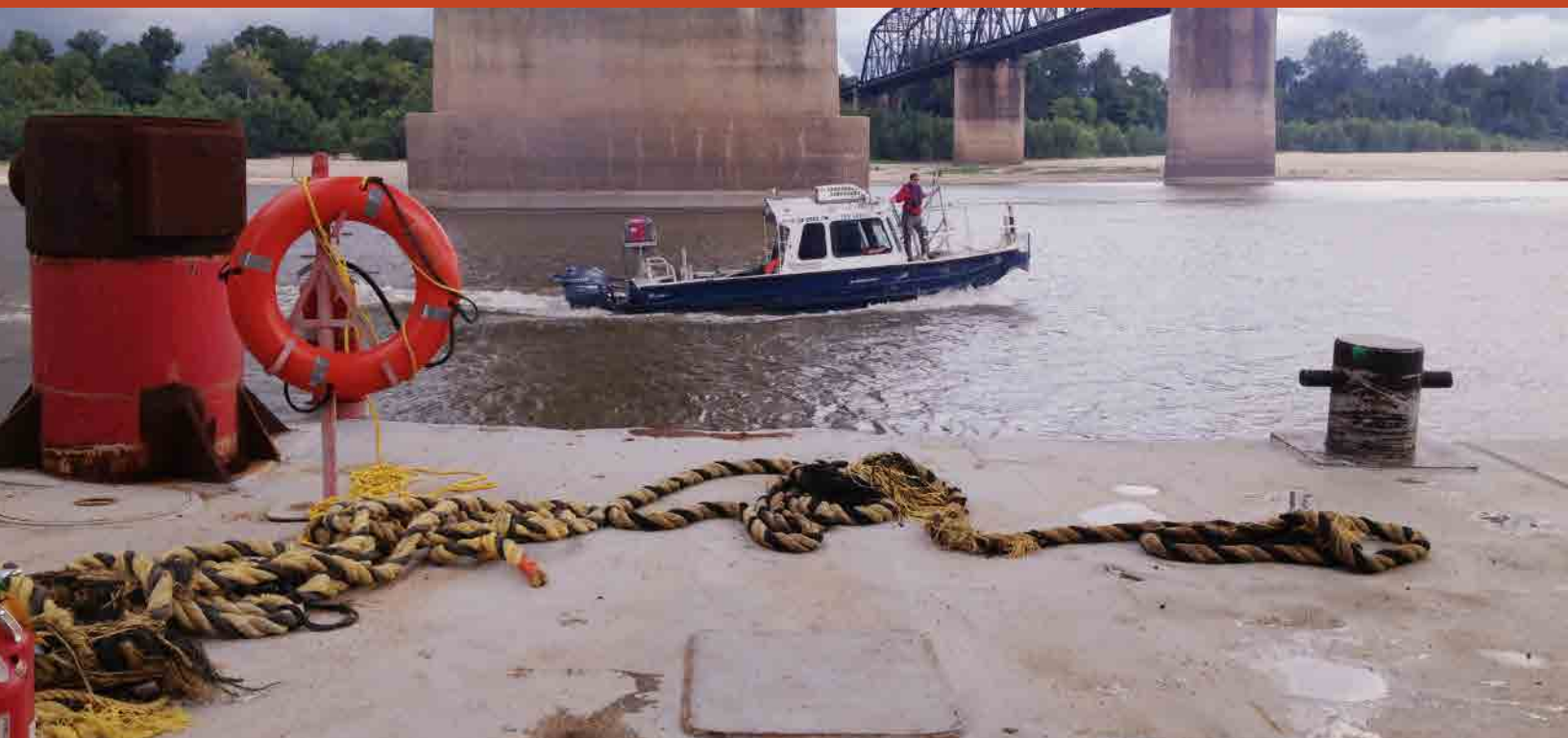
### **GIS Services**

- Land Management
- Asset & Data Management
- Mapping Solutions
- Base Maps
- Planning & Routing
- Litigation Support





For more than 60 years, Fenstermaker has maintained its leadership in the field of survey & mapping by focusing on the right balance of expertise, experience and technology.



## **Advanced Technologies Division**

As a technological leader in our business, Fenstermaker constantly investigates new ways to improve how we do things for you. Our Advanced Technologies Division represents specialized disciplines in Underwater Acoustic Imaging (UAI), High Definition Laser Scanning, Intelligent 3D Modeling, and Dimensional Control. These sophisticated technologies, used independently or in unison, offer clients a stunning degree of visualization and precision control never before possible.

### **High Definition Survey (HDS)**

- 3D Laser Scanning
  - Offshore Platforms
  - Plants & Refineries
  - Roads & Bridges
  - Topographic Surveys

### **Dimensional Control**

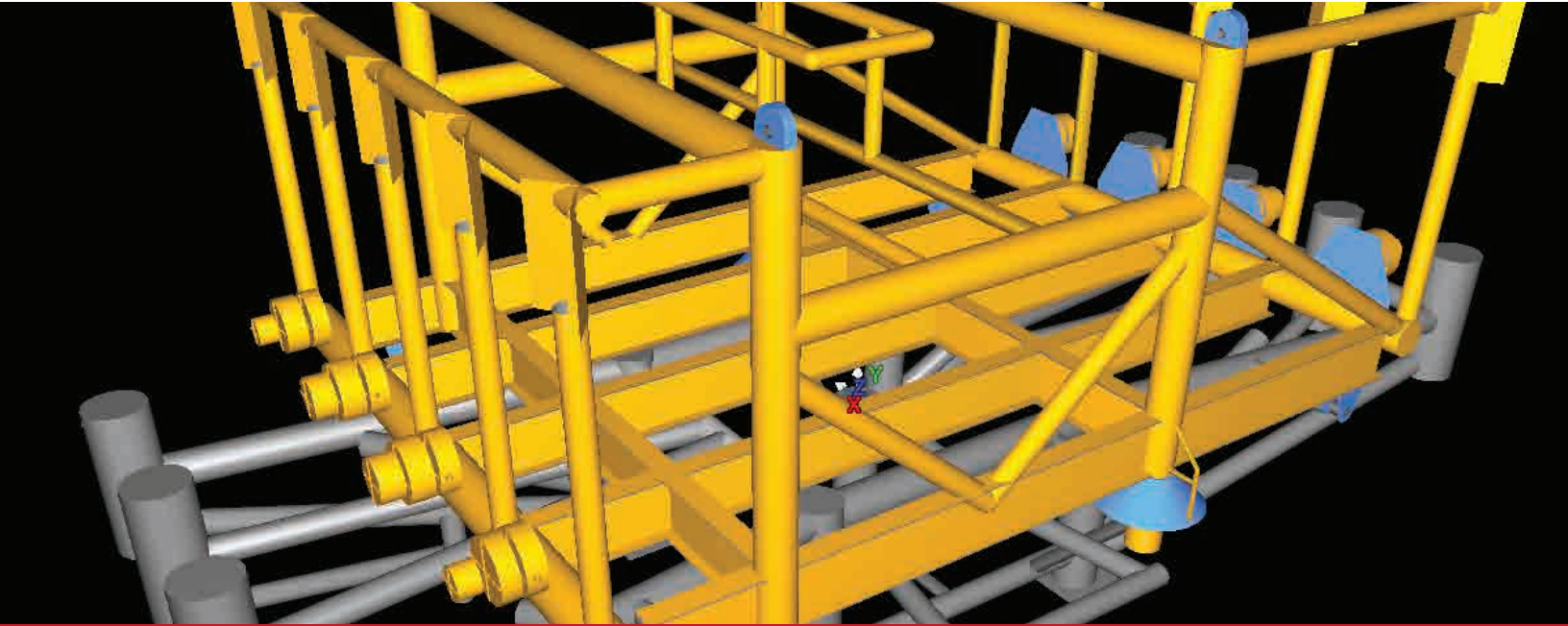
- Civil & Infrastructure Fabrication
- Deformation Monitoring
- Modular Fabrication
- Spool Piece Metrology

### **Building Information Model**

- As-Built
- Revit® Models
- Historical Documentation

### **Underwater Acoustic Services**

- Access Route Survey
- Bulkhead Inspection
- Dam Structure Inspection
- Dam System Evaluation
- Flooded Pipe & Conduit Inspections
- Heel & Toe Inspection for Dams
- Obstruction & Hazard Inspection
- Scour & Erosion Investigation
- Site Clearance Verification Survey
- Trash Rack Inspection for Dams
- Underwater Acoustic Imaging for Bridge Inspection
- Underwater Acoustic Site Investigation & Monitoring
- Underwater Construction & Dive Support
- Underwater Forensic Investigation
- Water Intake Inspection



As a technological leader, Fenstermaker constantly investigates new ways to improve how we do things for you. Our Advanced Technologies Division represents specialized disciplines in Underwater Acoustic Imaging (UAI), High Definition Laser Scanning, Intelligent 3D Modeling, and Dimensional Control.





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