

## Services to the Natural Gas Industry

THA Engineering Solutions provides a variety of engineering design and drafting services for the full range of natural gas facilities including pipeline, compression and measurement. THA Engineering will utilize both in-house personnel as well as outside resources as special needs arise.

#### Hydrographic and Field Surveying

In addition to traditional field surveying services, THA Engineering Solutions provides hydrographic surveying for route selection, inspection of pipeline crossings, exposure risk/remediation, and as-built plan and profile of pipeline crossings for depth of cover and/or extent of exposure.

## Pipeline Layout and Design

THA Engineering Solutions provides the engineering and drafting required to take a pipeline project from conception through FERC filing. This includes initial field scouting, route selection and layout, alignment sheets, road/railroad-crossing, permitting, pipeline, block valve, pig trap, and measurement facility design. We can also provide required exhibits for the FERC filing.



#### Construction Management

THA Engineering Solutions provides construction management services for all types of natural gas installations including project management, on-site inspection and on-site "as-built" documentation.

- General oversight of constructionto be the eyes and ears for the Owner
- Improved communications with Contractor to keep project on-time / under-budget
- □ Be Owner's on-site rep to facilitate timely decision making to avoid "decision delays"
- □ Assess Requests for Payment/Change Orders

## Facilities Planning and Design

There's an old saying, "to be successful, you must begin with the end in mind." – very true when planning and designing facilities like compressor stations, measurement runs, or other facilities integral to efficiently moving natural gas.

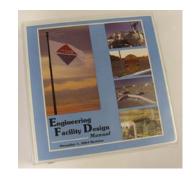
## **As-Built Drafting**

THA Engineering Solutions provides "as-built" documentation support for any type of project, including documentation on-site during construction or post-construction.

# Integrity Management

THA Engineering Solutions provides:

- MAOP Determination Studies
- □ Risk Assessment Investigations
- Judicial Determination
- □ Integrity Management / HCA's
- □ Special Permits Support



# Technical Writing & Publishing

THA provides formatting, editing, and publishing services for a number of different types of documents, including manuals for engineering design and construction, O&M or Policy and Procedures. THA also provides topic specific documentation support for Special Permits and DOT regulatory reporting.