

## 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.

### 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 route layout, field scouting, route selection, alignment sheets, railroad and road-crossing permitting, pipe design, block valve design, pig trap design and measurement facility design. We can also provide required exhibits for the FERC filing.

### 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.



### 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.



### 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.

- ❑ Provide general oversight of construction – to be the eyes and ears for the Owner
- ❑ Improve communications with Contractor to keep project on-time / under-budget
- ❑ Be Owner's Representative on-site to facilitate timely decision making to avoid "decision delays"
- ❑ Evaluate Requests for Payment and Change Orders

### Integrity Management

THA Engineering Solutions provides:

- ❑ *MAOP Determination Studies* – Evaluation of MAOP's for facilities, including pipeline, measurement stations, fabricated assemblies, and compressor stations.
- ❑ *Risk Assessment Investigations* – Field inspections of facilities, including inspections for a wide range of risks (we maintain a list of over 150 items that may be selected for inspection). After inspection, each identified potential risk is tagged and a summary is given to the client for remediation.
- ❑ *Judicial Determination* – Reviewing of facilities and making determinations of proper oversight by state and federal agencies. Requirements and necessary documents needed for each entity are provided.
- ❑ *Integrity Management / HCA's* – Preparation of brief two to three page segment review documents for HCA's
- ❑ *Special Permits Support* – Assist with DOT regulatory requirements.

