

PROJECT PROFILE / **SYSTEMWIDE NATURAL GAS PIPELINES EXPANSION**

TWO MAJOR PIPELINES EXPAND CAPABILITIES IN NORTHERN MICHIGAN

One of North America's largest energy utilities required a team of engineers for the design and construction phases of two pipelines in Traverse City, Michigan, to provide reliable services for nearby communities.



MULTIPLE STATION UPDATES INCREASE EFFICIENCY AND RESILIENCY

System upgrades, including procuring and installing critical equipment, and the addition of two single-source pipelines will help create a more secure natural gas system.

PROJECT STATS

CLIENT

Confidential client

LOCATION

Traverse City, Michigan

ANTICIPATED COMPLETION

November 2021

128

ON-SITE WORKERS

8.5

MILES OF 10-INCH PIPELINE

14

MILES OF 8-INCH PIPELINE

7

STATION UPGRADES

With a goal of continuing to provide consistent services to major cities in northern Michigan, a major Upper Midwest utility sought a team to complete design on two major pipelines as part of its Lincoln-Traverse and Frankfort single-source pipelines project, as well as make several strategic station upgrades. The region is in need of these pipelines to provide a secondary gas source to continue serving local residents during scheduled outages and unforeseen service disruptions.

Phase 1 of the project involved the design, procurement and construction of a pipeline 10 inches in diameter and 8.5 miles long, along with three station upgrades for a more resilient system. As part of Phase 2, the team will design, procure and construct a pipeline 8 inches in diameter and 14 miles long; and complete five station upgrades for increased reliability. Final project completion is expected in November 2021.

OVERCOMING GEOGRAPHICAL CHALLENGES

Throughout Phase 1, the geological makeup of the land that the 10-inch pipeline was built on posed a challenge for the design and construction team. To see that the pipeline was built on a solid foundation, the team modified original designs to account for sand planning alignment. The team also met strict requirements of how far apart to build the pipelines to minimize risk and meet regulations set by the U.S. Environmental Protection Agency (EPA), as well as those set by the state through the Department of Environment, Great Lakes and Energy; and the Department of Natural Resources.

As part of both Phase 1 and Phase 2, the team is responsible for land acquisition and permitting. Design of the pipelines underwent a fairly rigorous review by local landowners and address project concerns from residents. The client also hosted town halls throughout Phase 1 of the project to answer concerns from landowners affected by either pipeline.



Additionally, the team is in the process of demolishing and rebuilding several stations as part of the project, and making upgrades to the pipeline to increase safety and reliability. In total, eight stations will receive updated equipment to meet the client's specifications. Upgrades include procuring and installing filter separators, pig traps, communication buildings, communication racks, heaters, prefabricated buildings, regulator skids and actuated main line valves.

MAINTAINING SAFETY

With 128 workers already on-site during Phase 1 of construction, during a pandemic, health and safety remains top of mind: Regularly testing for COVID-19, daily temperature checks and promotion of mask usage are all part of the job, to help minimize risk of exposure.

Communication also had to be adjusted throughout Phase 1 and likely will continue to be adapted throughout the design and construction of the second pipeline

in Phase 2. Most meetings quickly transitioned to a virtual setting to aid in social distancing measures. Weekly meetings continued to monitor safety of workers and the team regularly discussed how to keep the health of crews a priority.

In total, the project will require engineering support throughout both phases of the two pipelines. Our team will work to continue to adapt to any challenges revealed throughout the project in Phase 2.



BURNS  MCDONNELL

burnsmcd.com | Offices Worldwide

20602-SING-1220