CHALLENGE: Replace underground utilities in major traffic corridor with changes in scope of work with compressed timeline.

SOLUTION: Coordinate with utilities, municipalities, and property owners to maintain schedule and trouble shoot change in conditions while opening road to traffic ahead of schedule.

OWNER: City of Traverse City; Timothy Lodge

CONTRACT AMOUNT: $4,095,742.25

DESIGN ENGINEER: Gourdie Fraser

ENGINEER CONTACT: Brian Boals | 231-946-5874

LOCATION: 8th St | Boardman St to Railroad St

DATE STARTED: May 6, 2019

DATE COMPLETED: September 26, 2019

SELF-FORMED: 63%

PARTNERS: Bella Concrete, GEABS, Interlock Design, P.K. Contracting

By The Numbers

Pavement Marking: 14,336.8 feet
Largest Water Valve: 6 ft long, 240 turns to open
Water Main: 1,689 feet
24-inch Water Main: 1,994 feet
HMA: 3,320 tons
Curb & Gutter: 4,655 feet
Decorative Sidewalk Concrete: 6 inches, 48,225 square feet
Water Service Hook-ups: 14
Storm Sewer: 2,311 feet
Sanitary Sewer: 2,156 feet
Trees Planted: 45

Potholes so big they would swallow your car was the joke when traveling 8th Street, a main east-west corridor through Traverse City, Michigan’s North Boardman Lake District near downtown. Several traffic studies and visioning sessions were held for the public to imagine what the redesigned 3 block critical corridor should look like once reconstructed.

In addition to the complete street reconstruction of the corridor, the state of Michigan had mandated municipalities to replace galvanized water line connections that may leach lead if water is not properly treated. Coordinating this work while the complete street reconstruction was occurring was done through effective planning by the City of Traverse City. Team Elmer’s was the low bidder on the public street reconstruction project.

The challenge was to replace the entire underground and surface infrastructure in as short a time frame as possible. Storm sewer, sanitary sewer, waterline, curbs & gutters, sidewalk, and street surface replacement was planned, in addition to making the street multi-model with bus traffic bump outs, designated bike lanes behind the curb,
and adding crosswalks and islands for safe pedestrian crossings. Team Elmer’s was up for the challenge.

The solution was to coordinate third party utilities for placement of overhead wires underground, locating existing structures to aid in placement of new structures, and notifying business owners during the entire process to know what to expect. (Businesses remained open during the entire reconstruction process.)

In addition to the visioning, careful planning, and implementation of the plan, contaminated soils were discovered during excavation on the mid block section. Proper protocols were followed and mitigation began quickly. What could have derailed the entire construction schedule became an opportunity to problem solve and add value. Once remediation was complete, the construction schedule resumed.

During the installation of the 24-inch water main, 100 year old steel band wrapped wood water pipe was discovered in three separate places. Six foot long valve boxes (240 turns) were installed on their side for proper clearance, while a typical valve box stands upright and takes 30 turns to open.

To achieve the desired park like setting, trees and irrigation were added, wider sidewalks were designed with an inclusion of a designated bike lane behind the curb, and sensor operated LED street lamps were utilized. The City chose to use asphalt for the road surface versus concrete to allow quieter tire noise and quicker repair during long term road surface maintenance. Project completion was scheduled for November, but due to efficiency, the east-west corridor was open to traffic in late September.

“My compliments to Team Elmer’s! Very Nice Work on Eight Street...at first glance it is pleasing to the eye with a nice balance of landscape elements and appears to fit the neighborhood! Especially like the height and style of the light standards. I think it has a much friendlier appearance...Kudos and thanks again to the [designer and] Team Elmer’s team for a job well done!”

Mark Polinko - Landscape Architect