



**CLIENT:**

**Confidential**

**ROLE:**

**Subcontractor/  
Self-Performing**

**CONTRACT NUMBER:**

**60588630**

**PROJECT NUMBER:**

**10-18-0030**

**CONTRACT AMOUNT:**

**Mid to upper 6 figures**

**DATE COMPLETED:**

**December, 2018**

**PROJECT HIGHLIGHTS:**

- *Excavated 1,200 tons of hazardous waste via piano key approach to protect an existing 50 year old water line*
- *Rushed schedule due to hazardous waste disposal facility shutdown*
- *Backfilled with Flash Fill to protect waterline and provide clean "piano key" segregation*
- *Restored street with brick underlayment just in time before winter shutdown*
- *Completed all work from the street side due to property owner's existing cap worries*

## Street Remediation

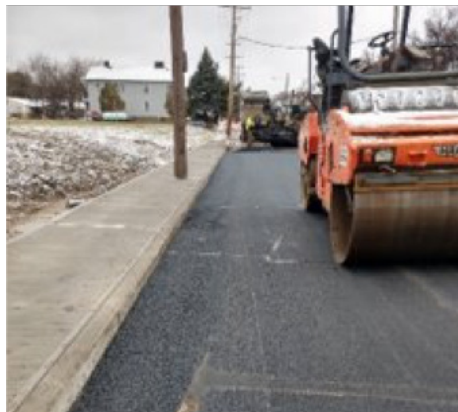


Buckeye Elm was engaged to provide subsurface soil excavation, transportation/disposal, and backfilling (earthwork) services to reduce the potential risk to human health from direct contact with hazardous waste soils. This was achieved through excavation and disposal of 1,200tons hazardous waste soils and replacement with flowable fill backfill.

Buckeye Elm removed three soil vapor probes and a ground-water monitoring probe prior to excavation activities. Upon completion of project, Buckeye Elm replaced these structures and used the survey data to set top of casings.

### PROTECTION OF EXISTING UTILITIES

There were three utilities identified in the RFP that needed to be protected during excavation operations comprising of a 72-inch brick lined storm sewer, a 6-inch cast iron water pipe, and overhead utilities.



Buckeye Elm performed the excavations using a piano key method in order to protect the existing 6-inch water line. This method ensured only a maximum of 10 feet of the water line was exposed at a time. In addition, Buckeye Elm used I-beams and straps to secure/pin the water line during excavation.



### **REMOVAL OF ENGINEERED SURFACES**

Concrete and asphalt surfaces were removed prior to excavation work. Buckeye Elm saw cut, loaded, transported, and disposed of the concrete /asphalt at a licensed C&D facility.

### **EXCAVATION ACTIVITIES**

Buckeye Elm created four soil stockpiles (suspected clean, suspected Non-Haz, suspected Haz <60ppm, suspected Haz >60ppm). The stockpiles had a poly lined base wrapped around haybales at the perimeter and were covered with poly when not in use. Each stockpile consisted of no more than 500 tons of soil. Upon completion of excavation activities, the soils were sampled for characterization and disposed of accordingly.



### **TRANSPORTATION AND DISPOSAL**

After characterization as described above, Buckeye Elm loaded out, transported, and disposed of all waste in accordance with applicable regulations. For hazardous waste, all transportation was performed using licensed, placarded, and permitted hazardous waste haulers.

### **SITE RESTORATION**

Upon completion of the project work, all surfaces were restored according to the scope of work. Asphalt and concrete were replaced, and disturbed soil was seeded and mulched. All stockpiles and load out areas were restored to pre-operation conditions.

***Proper scheduling and coordination with the field personnel allowed completion of the project within budget and ahead of time***



782 Hartford St. • Worthington, OH 43085  
**888.315.8663 • buckeye-elm.com**