

Y-12 Infrastructure Reduction Engineering Support

Pro2Serve provided design and field support to the Y-12 National Security Complex that enabled Y-12 to achieve the first major milestone of its Infrastructure Reduction program in less than two years, which was to reduce the Y-12 footprint by 500,000 sq. ft. With Pro2Serve's support, Y-12 succeeded in removing 119 buildings totaling 512,000 ft². The engineering design support included:

Site Investigation Reports

Personnel visited the site to investigate existing configurations of utilities, supports, structure, etc, search BWXT Y-12 drawing resources for appropriate existing design information. Field walk-down reports were included in the Site Investigation Report, along with other information developed from the drawing review and interviews with cognizant Y-12 personnel. The field investigation activity also determined those existing drawings that must be modified to as-built status, including those configuration controlled drawings modified to show "Obsolete" status (e.g. Fire Protection sprinkler drawings).

Design Development

Development and issue of design documents, including drawings, specifications, and as-built drawings to provide instruction to field personnel to accomplish utility isolation and, where necessary, utility re-routes. Numerous electrical power systems required rerouting to continue to provide power to other local buildings that were feed from the building being demolished.

Similar designs were required for piping systems such as steam, compressed air, breathing air, and potable water. The Pro2Serve utility isolation drawings showed the existing routing for aerial cables and underground conduits associated with the Fire Alarm, Emergency Notification, Plant Public Address, Emergency Power, and the Plant Telephone Systems.

As-Built Drawing Revisions

Drawings identified during field investigation as well as others discovered during the design development, that will require as-constructed or as-built modification, were noted in the Site Investigation Reports. As-built modifications required a walk-down by the design engineer following field implementation to confirm the as-constructed information prior to the drawing modification.

Field Change Notices

Pro2Serve answered technical questions resulting from field implementation activities, primarily for utility re-route construction work, and processed Field Change Notices (FCNs) (including technical approval or alternative approach development).

A Demolition Plan was developed for some of the larger more complicated facilities. The plan consisted of a dimensioned site layout drawing, indicating utility isolation points and limits of demolition.

