

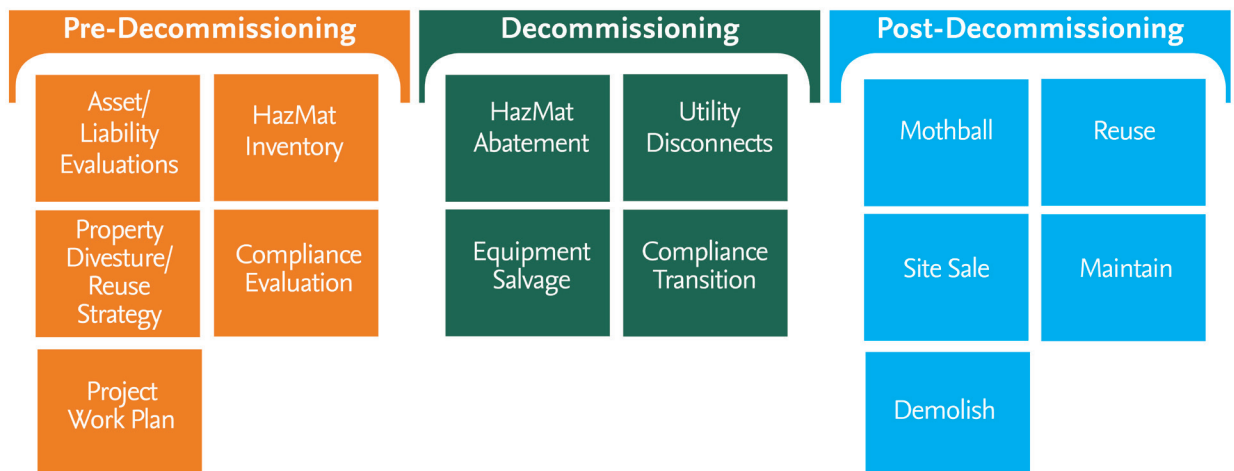
Facility Closure and Site Divestiture **Services**

VERTEX's systematic and comprehensive approach focuses on safety, compliance, and cost-effective solutions.

Companies with surplus/closed facilities face the challenges of defining divestiture options, executing the selected option, and closing on sale of the property, while simultaneously meeting a countless number of regulations and attempting to minimize long-term environmental, legal, and financial liabilities. These difficult tasks put tremendous pressure on corporate teams to close sites in a timely and cost-effective manner, creating complex project completion challenges.

VERTEX delivers cost-effective, professionally managed facility closure services to our clients, ranging from providing net present value financial modeling of property divestiture strategies to design and delivery of decontamination, decommissioning, and deconstruction programs. We provide these services using a range of delivery mechanisms tailored to project requirements, including design/build and turnkey options for sensitive projects where continuity of the project team is critical for success.

Our approach is holistic by design; the breadth of VERTEX permits us to offer a full suite of engineering and related services integral to facility closure, including architectural and real estate planning to envision and assess property potential, economic evaluation of divestiture options, engineering assessments of hazardous materials, and design and management of facility deconstruction.





Economic Analysis

- Real Property Valuation
- Liability and Asset Analysis
- Real Estate Transactional Analysis
- Risk Management
- End-of-Life cost estimating and financial reporting

Pre-Demolition

- Baseline screening assessments to develop facility closure scope and schedule
- Asbestos/Hazardous materials inventory, mitigation planning
- Facility closure DDD budget estimating, work plan preparation and project planning
- Machinery and equipment asset sale, salvage, and transfer management
- Regulatory agency consultation, stakeholder involvement and public/community outreach
- Brownfields redevelopment/site reuse support

Execution Phase

- Health and safety services
- On-site construction/demolition management
- Hazardous material abatement oversight
- Waste characterization and management
- Sewer and drainage line evaluations, cleaning, and closure
- UST/AST closure and reporting
- Soil and groundwater remediation
- Permit close-out
- Site restoration/Property Transfer

Decontamination, Decommissioning, and Demolition Services

VERTEX has a proven approach to Decontamination, Decommissioning, and Demolition (DDD) projects that has been successfully implemented by our experienced staff and pre-qualified subcontractors. While each project is unique, the following highlights of our general project approach for planning and executing these projects.

1. A comprehensive background data review to identify data gaps that could potentially have a material impact on decommissioning/demolition cost and schedule, including:
 - An assessment of current conditions regarding tank and process equipment contents, which if significant, may affect pre-demolition waste disposal costs, the time needed to remove any contents, and the relative value of scrap steel (versus disposal of steel without removing the residuals). This high-level assessment will help determine impacts to cost and schedule as well as any specialist resources/ equipment potentially required. A more detailed assessment may be appropriate during preparation of bid specifications.
 - An evaluation of regulated/hazardous materials (e.g., asbestos, mercury, etc.) including whether the available data are sufficient to develop a demolition plan and/or bid specifications.
2. Develop a detailed inventory of the former manufacturing assets as either salvage or scrap. This identifies the approximate value to the project and the overall impact on decommissioning/demolition cost. Assumptions on scrap value will be based on the local market and transportation logistics.
3. Conduct supplemental hazardous waste survey depending on the outcome of the above-mentioned data gap analysis.
4. Develop a high-level decommissioning/demolition execution plan that establishes the major elements of the overall project, including cost and schedule. Inputs to the plan include:
 - Permit requirements
 - Health and safety requirements
 - ACM/Regulated materials abatement
 - Tank/Equipment contents removal
 - Off-site transportation options and constraints
 - Waste disposal options
 - Scrap steel and salvage options
 - Demolition execution and extent
 - Site restoration requirements
5. Develop a detailed/technical Bid Specification in CSI format based on the information collected in Steps 1-4.
6. Execute project in accordance with client delivery requirements:
 - Design Bid
 - Design Bid Build
 - Design Build
7. VERTEX draws on our extensive experience with the evaluation, management and disposition of manufacturing facilities by quantifying each concern outlined above and preparing a reasonable course of action, tailor-made for each situation. Through practical knowledge gained from years of projects involving Facility Closure Services, our ability to understand our Clients' business goals help differentiate our approach from our competitors.



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