



Designing Out Waste

Emphasis on sustainable design and construction practices has increased over recent years. Building designers play an integral part in helping to deliver projects that address key areas of sustainability (environmental, social and economic).

Waste minimization and management are some of the most important areas of focus for any sustainable building project. All phases of a sustainable building design offer opportunities for the design team to implement strategies that will help minimize or eliminate waste during the construction stage and the whole life-cycle of the building. The best management approach to waste is to manage the process so that there is no waste to manage.

Waste Management Sustainability Services provides a holistic logistical consultative approach to help capture waste upstream and downstream to improve the project's overall waste diversion. Our team can participate during the integrated design process (IDP) and help review every aspect of material sourcing, material use/reuse, material disposal and material recyclability. Our consultants have the capability to perform a waste efficiency-focused design review to identify and categorize materials that impact the building project from conceptual design to post-construction, substantially improving waste recycling and helping achieve the project's overall sustainability goals.

Basic Design Efficiency Principles

The building design and construction process presents numerous opportunities to reduce waste. The principal objective of waste minimization and management is to use materials efficiently in an effort to reduce the amount of waste generated.

- **Reuse and Recovery** - We can help identify existing building material components that are easily reusable for future building projects, lessening environmental impact.
- **Off-site Construction** - Assembly of building components off-site can reduce the amount of construction waste. Our consultants can work with design teams to create a Construction Waste Management Plan (CWMP) identifying opportunities to reduce waste during building construction.
- **Materials Optimization** - We will work with designers to specify building components and practices that focus on material resource efficiency.
- **Waste Efficient Procurement** - Our consultants can work with general contractors on project scheduling and C&D waste hauling and monitoring to guarantee work is performed in the appropriate sequential order to reduce waste generation.
- **Deconstruction and Flexibility** - Our consultants will help you perform a building life-cycle analysis to ensure your building project is being designed with the end-use in mind, taking into consideration alternative construction methods and material specification.

Integrated Design Process

Collaboration is the cornerstone of every successful sustainability plan. Waste Management Sustainability Services consists of experienced professionals who can help you in any design or construction project – from conceptual design through post-occupancy. As stakeholders in the building integrated design process, our consultants can assist you in each of the following phases.

- **Pre-Design/Concept** – Pre-Design is the most important phase related to the environmental sustainability of built spaces, often referred to as the “discovery” phase. Our consultants can work with you to develop and define the overarching sustainability and LEED goals for your project pertaining to material optimization, recycling and waste reduction.
- **Design Development** – We can provide an architectural review and coordination on building design aspects that impacts the total waste management strategy. Our consultants will work with designers to analyze potential waste stream types and volumes per FTE, building program and square footage. To ensure operational efficiency, we will perform equipment right-sizing analysis, develop material conveyance maps and waste management plans. In addition, our team will review your project’s material specifications to identify areas of opportunity to eliminate waste and help select building materials that reduce environmental impacts.
- **Construction Documents** – Our consultants will refine the CWMP with the goal of ensuring that site activities and contractors’ activities are as sustainable as possible.
- **Bidding** – Building material specifications and subcontractor qualifications are important to ensure project sustainability goals are met. Our consultants will work with design teams to devise a Request for Proposal that includes requirements that are aligned with project goals.
- **Construction** – Our consultants can monitor contractor and subcontractor site activities and adherence to the CWMP, monitor and verify achievement of LEED diversion levels, and assist with the preparation and submission of the USGBC LEED documentation required to achieve LEED credits.
- **Post-Occupancy** – Our consultants will draw on experience and expertise to assist you in attaining environmental sustainability and ongoing building certification goals. We can provide ongoing recycling program management pursue waste diversion improvements through tracking and monitoring systems and develop materials management and operations policies.

About Sustainability Services

Waste Management Sustainability Services is a nationwide network of environmental professionals offering sustainability advisory services, environmental and project management experience to help companies advance along the path toward sustainability. By leveraging the network of assets and expertise of Waste Management, the leading provider of comprehensive waste and environmental services in North America, our team can design and implement value-driven solutions unrivaled in the industry.

TO LEARN HOW OUR TEAM OF
CONSULTANTS CAN HELP YOUR
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