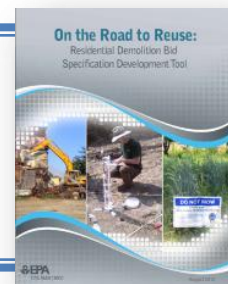


On the Road to Reuse: Residential Demolition Bid Specification Development Tool



Report # 560K13002

September 2013

Improved Demolition Practices Better for Environment and Future Vacant Lot Reuse

The EPA Region 5 Residential Demolition Bid Specification Development Tool highlights environmental issues associated with residential demolitions and lists specific practices that can be incorporated into the demolition contracting process to achieve better environmental outcomes. Also included in the document is a list of existing regulations and best management practices concerning residential demolitions.

The use of environmentally beneficial demolition practices can result in long- and short-term environmental benefits and set the stage for vacant lot revitalization. In contrast, poorly managed demolitions may violate the law, harm human health and degrade the environment. Since large-scale demolition projects often occur in areas of Environmental Justice concern, impacts may fall disproportionately on vulnerable populations. Even when in compliance, demolitions may miss opportunities to leverage the financial investment in better materials management and deconstruction practices.

The goal of the report is to assist cities, counties, land banks and other organizations in improving residential demolition operations and outcomes. Benefits that communities may achieve include:

- Reduced air, water and land pollution.
- Improved stormwater infiltration.
- Reduced stormwater runoff.
- Greater adherence to environmental regulations.
- Improved worker safety.
- Maximized diversion of waste from landfills by increasing salvage and recycling.
- Deconstruction and reuse of building materials.
- Proper handling of hazardous waste streams.
- Improved appearance in the end-use.
- Stabilized and revitalized neighborhoods.

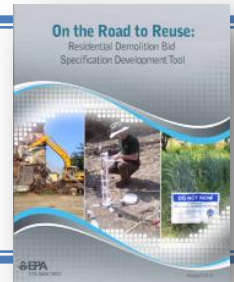
The appendix includes examples of bid specification language that would instruct contractors on technical requirements for a greener demolition project. By providing cities, counties, land banks and other entities with this tool, it is anticipated greener practices could be included in the demolition bid specification used in the contracting process. The end result is better site conditions at the conclusion of the demolition process. Performing greener demolitions not only has environmental benefits, but also better prepares the vacant lots for future reuse.



Many cities are exploring urban farming, stormwater retention infrastructure, waterfront parks, open space, habitat creation, urban forests and other environmentally beneficial ways to use vacant land. However, current demolition practices may remove the building but leave the vacant lot with obstacles to reuse. As one example, demolitions that allow substantial impervious surfaces to remain (driveways, foundations, parking areas, etc.) do not adequately prepare vacant parcels for these reuses. Left in place, these impervious surfaces inhibit stormwater infiltration and become obstacles to the reuse of the property through imposed costs on any future development effort.

Coming, Fall 2013: Communities can download the report and access a large-scale demolition resource site at: www.epa.gov/large-scale-residential-demolition.

On the Road to Reuse: Residential Demolition Bid Specification Development Tool



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Communities Can Use this Tool for Planning and Procurement

This report identifies the environmentally sensitive activities associated with demolishing residences, from pre-planning to demolition to site rehabilitation (e.g., hazardous materials abatement, fill material selection and placement, material recycling or deconstruction). For each of the activities, the report provides decision-making information and bid specification language suggestions to assist local government officials in updating their bid specification documents. The report is not intended to be a stand-alone bid specification. Local users should identify areas of improvement and then select sections to be inserted into their existing procurement document. Local procurement laws and practices, soil conditions, materials markets, climate and even local vegetation needs can impact how a specification can be adapted for local use.

Note: This Residential Demolition Bid Specification Development Tool does not create any new regulatory requirements or change any existing regulatory requirements. The document includes existing regulatory requirements along with best practices to consider while developing demolition bid specifications and contracts.

Future Application in Conjunction with Federal Partners

Demolition Practices Set Stage for Floodplain and Stormwater Management

The Milwaukee Metropolitan Sewer District is demolishing 83 homes along the Kinnickinnic River as part of a \$50 million infrastructure project on floodplain and stormwater management. Improved demolition practices will avoid costs later in the project to widen the stream channel and eliminate flooding of adjacent neighborhoods. MMSD demolition contractors use improved fill materials to allow stormwater infiltration and are actually *deconstructing* the buildings in the floodplain. The demolition bid specifications identify the allowable soil materials as well as the percent, by weight, of the house demolition materials that should be kept out of landfills.



The HUD Neighborhood Stabilization Program and Treasury 'Hardest Hit' program are two large sources of demolition funds in Region 5. This report highlights the technical features in the demolition process that allows expedited stabilization to occur through better site preparation for eventual reuse.



FEMA may utilize the residential demolition bid specifications to facilitate disaster mitigation and recovery. FEMA and EPA could explore how demolition practices can enhance both stormwater infiltration and reduce flooding as illustrated by the MMSD project.

Contacts:

Jon Grosshans, Community Planner
Superfund – Community & Land Revitalization
U.S. EPA Region 5
77 W. Jackson Blvd., SM-7J
Chicago, IL 60604
312-353-5617
Grosshans.jon@epa.gov

Brooke Furio, Section Chief
Office of Enforcement and Compliance Assurance
Strong Cities Strong Communities, Community Solution Team
U.S. EPA Region 5
25089 Center Ridge Road, ME-W
Westlake, OH 44145
440-250-1705
Furio.brooke@epa.gov