

RESPONSIBLE DEMOLITION

PROGRESS IN DETROIT AND BALTIMORE

THE ANNIE E. CASEY FOUNDATION



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INTRODUCTION

Though cities across the nation have long struggled to manage vacancy and blight, the aftermath of the Great Recession brought a new sense of urgency to these problems. Decades of disinvestment, a boom in foreclosures and an influx of federal resources pushed communities across the country to accelerate demolition and redevelopment projects and adopt more innovative approaches, including safer guidelines to protect residents' health.

With its 88-acre East Baltimore Revitalization Initiative, Baltimore has been a leader in developing responsible demolition methods. The Annie E. Casey Foundation offered lessons from this large-scale project in an earlier report, [Responsible Demolition: A Baltimore Case Study With National Implications](#).

This follow-up brief provides an overview of redevelopment efforts in Detroit, which built upon Baltimore's lessons to refine its own responsible demolition protocols, and best practices for deconstruction — considered to be the gold standard of environmentally friendly demolition methods — that both protect the environment and spur job growth.

MANAGING DEMOLITION AND PUBLIC HEALTH IN DETROIT

By 2015, four years after the end of the Great Recession, the Detroit Land Bank Authority (DLBA) owned nearly one-quarter of the 388,000 land parcels throughout the city — and approximately 30,000 of them included vacant buildings. Because of weak market conditions, the DLBA estimated that only about 10,000 of those vacant buildings were salvageable and 10,000 needed to be demolished, with the balance depending on market strength and property condition.¹ Those demolished would be repurposed for community green spaces, side lots for neighbors or future redevelopment.

Demolishing and repurposing the blighted parcels was a top priority for city officials, residents, business leaders, nonprofit organizations and others looking to shore up both public safety and weak real estate markets. Mike Duggan, Detroit's newly elected mayor at the time, brought a fresh perspective to the work, advocating for a broader revitalization strategy that he felt could stabilize the city's long-disinvested communities. While the city had a new opportunity to propel these efforts using money from the U.S. Treasury Department's Hardest Hit Fund program,² officials understood they needed to proceed carefully.

"We were committed to doing this the right way," says Mike Brady, general counsel for the Detroit Land Bank Authority. "There was a huge amount of need and demand from the community, but we knew we had to do it in a manner that would protect residents' health and safety."

Over the years, Detroit had seen high rates of lead poisoning, which prompted concern about the public health implications of the planned demolition efforts. In reviewing the city's demolition processes, the DLBA found that the existing laws covered only asbestos, not lead or other

pollutants. Further, while the Occupational Safety and Health Administration (OSHA) did provide additional guidance about lead, it was only regarding worker safety — not the safety of the broader community.

The DLBA convened representatives from the U.S. Environmental Protection Agency (EPA); the Michigan Department of Environmental Quality (MDEQ); the Michigan Occupational Safety and Health Administration (MIOSHA); the City of Detroit’s Buildings, Safety Engineering and Environmental Department; the City of Detroit Health Department; the Detroit Building Authority; and community members to establish new protocols around responsible demolition.

This working group turned to the “Baltimore protocol” — as the guidelines developed for the East Baltimore Revitalization Initiative had come to be known — as a starting point and talked to other communities with large-scale demolition efforts for direction. Using research and a series of community engagement meetings, the group determined the most effective practices it could realistically implement in Detroit to limit the spread of lead dust and other pollutants. Its recommendations, which were later adopted, focused on three key areas:

- wet-wet demolition;
- community outreach; and
- enforcement.

Wet-wet demolition — which requires contractors to use at least two hoses to keep materials adequately wet during the actual demolition process, and at least one hose to keep materials wet during the removal of debris — is one of the most cost-effective ways of limiting the spread of fugitive dust. Detroit provides specific guidelines on what constitutes adequate wetting, stating for example that materials should be wet enough that no visible dust is displaced as they are removed.³ Other related guidelines include measures to ensure demolition does not take place when wind speed exceeds 20 miles per hour.

Detroit has a comprehensive **community outreach** plan that aims to educate residents about the demolition process and steps they can take to protect themselves. The first step is to notify neighbors when a property is scheduled for demolition. Then, the city provides written information about precautions individuals can take to protect their homes from lead dust, including bringing toys and furniture inside and closing windows during the demolition. These outreach materials, which are written in English, Spanish and Arabic, also educate residents on what to expect from the demolition contractors and how to report any concerns or potential violations.

Detroit also has bolstered **enforcement** activities, and now has a dedicated hotline for residents to report violations. The city also hired additional field inspectors who are on site for 90 percent of the demolition and respond quickly to citizen concerns. In addition, the city has changed its procurement process for demolition contractors, requiring lead-awareness training and building in penalties for vendors who violate the terms of their agreement. These penalties are not simply fines a contractor

might be able to absorb; instead, they can result in being ineligible to receive future contracts or being suspended or permanently barred from doing work with the city.

Since the start of the expanded demolition efforts in spring 2014, the city of Detroit has demolished more than 14,100 properties. Over time, the city's protocols have evolved, including updates to enforcement processes, procurement and property release procedures and evaluation.

The evaluation component has proved to be critical in ensuring public health. In 2017, the city's health commissioner, Dr. Joneigh Khaldun, expressed concerns that the increased number of demolitions may be affecting lead poisoning rates in the highest-risk zip codes, causing an increase in cases during the summer months. She subsequently asked the DLBA and the city to suspend demolitions in 2018 from May 1 through September 30 in the five zip codes with the highest rates of residents with elevated blood lead levels, to determine if there was actually a correlation between the demolition activity and rates of lead poisoning.

According to Jon Grosshans, community planner for U.S. EPA Region 5, "if demolition is done poorly, then the lots aren't really suitable for anything else, but when it is done right, the land is back on the road to reuse." However, by properly handling demolition, removing the materials from the site and refilling vacant lots with soil from a good source, previously vacant parcels can become an asset for neighbors or real estate developers, who can purchase lots without having to take on the risk and cost of abating a potentially polluted site.

The EPA, which helped develop the new demolition protocols, has created toolkits (see page 6) based on Detroit's experiences to help other cities improve their own demolition processes.

DECONSTRUCTION: PROTECTING THE ENVIRONMENT, PROMOTING WORKFORCE DEVELOPMENT

Since 2012, Baltimore has been refining the protocol for its ongoing revitalization efforts, with adaptations such as incorporating higher standards for lead dust containment into city legislation and establishing procurement policies for contractors. In recent years, many of the same protocols around wetting, outreach and enforcement have been adopted in Baltimore City through a partnership with the state's Project CORE, which includes both demolition and deconstruction. Deconstruction is one of the city's greatest successes in this area.

In the deconstruction method, crews dismantle the building piece by piece, pulling out materials that can be salvaged or recycled. Traditional demolition requires less manpower and more heavy machinery — and creates a lot of dust. Deconstruction requires more labor and takes longer but minimizes the spread of lead dust and other contaminants. Building owners often have the option of donating salvaged materials to nonprofits for a tax deduction, which can help offset the additional expense of the deconstruction process.

The viability of deconstruction in a region depends largely on the local market forces; not all cities can support a supply-and-demand chain for the recycled materials. In Detroit, it has been difficult to build an ecosystem to support the method. The results of a pilot funded by the Kresge Foundation found that many of the city's detached, wooden homes have sat vacant for years, succumbing to the elements or becoming victims of arson, and whatever reusable materials they contain are often too damaged to be recycled. Further, the fees for taking heavy materials to the dump are relatively low in Detroit, making traditional disposal more cost effective than the more intricate recycling procedures. However, the city does retrieve salvageable materials from each property before it is torn down and, with support from funders like Kresge, continues to explore the expanded use of deconstruction as appropriate.

Larger cities and East Coast cities are better equipped to take advantage of deconstruction. Baltimore, for example, has many rowhomes made from brick, which offers greater protection from the elements. Building materials and even decorative elements can often be salvaged. The high cost of disposing of heavy materials at the landfill incentivizes contractors to recycle masonry. Beyond being reusable, Baltimore brick has become a commodity, with many architects seeking it out for new buildings. And the structural lumber, even in long-abandoned houses, is often still in good enough condition that it can be remilled into flooring, trim and furniture.

Baltimore-based Details, a social enterprise of the nonprofit Humanim, provides the city with deconstruction services at a competitive price. In addition to its wholesale operations, Humanim's retail store, Brick + Board, sells reclaimed wood, brick and architectural salvage materials for large- and small-scale projects, from new apartment buildings to kitchen renovations.

Baltimore has also seen other benefits from deconstruction, including reduced environmental impact and expanded workforce opportunities. The city started its deconstruction work with a pilot program, funded in part by the Casey Foundation, and more recently has entered into a three-year contract with Details to continue providing the service.

Creating Jobs From Deconstruction

Details has a central commitment to workforce development and hires people facing barriers to employment — such as a criminal record, a history of substance abuse or a lack of education or job skills — with the goal of helping them to become self-sufficient and provide for their families. Employees receive comprehensive training and a full benefits package, including case management.

In 2014, Details entered into a trial contract with the city of Baltimore to deconstruct abandoned rowhomes as part of the Vacants to Value program. After a successful trial period, Details was awarded a new contract in 2016, and deconstruction work with the city currently makes up about 50 percent of its business.

According to Details director Jeff Carroll, a deconstruction project typically creates six to eight times as many jobs as a traditional demolition project, presenting an important opportunity for high-unemployment cities like Baltimore. Indeed, job creation and workforce training are key objectives of the city's partnership with the enterprise.

Details currently employs a crew of approximately 50 and has provided training and jobs to more than 165 workers since 2012, with a retention rate of at least 80 percent after six months of employment. After one year, many workers move onto longer-term placements. Four employees already have bought their first homes.

CONCLUSION

As other cities look to design or improve their own demolition processes, the Foundation hopes these lessons from Detroit and Baltimore can help to minimize the negative effects of redevelopment on the environment and the community.

Additional Resources

- **On the Road to Reuse:** Residential Demolition Bid Specification Development Tool: This EPA toolkit identifies environmentally sensitive modifications for demolishing residential buildings, from preplanning to demolition to site rehabilitation, including decision-making information and bid-specification language for local government officials. The toolkit is available at <http://1.usa.gov/15yzqyt>.
- **Deconstruction Rapid Assessment Tool:** The EPA's Deconstruction Rapid Assessment Tool enables organizations to assess whether blighted buildings are candidates for deconstruction and salvage operations. A simple checklist and instructions are available at <http://www2.epa.gov/large-scale-residential-demolition/deconstruction-rapid-assessment-tool>.
- **Large-Scale Residential Demolition Resource Directory:** This EPA webpage lists demolition best practices, technical assistance contacts and links to additional information on specific regulatory issues: <http://www2.epa.gov/large-scale-residential-demolition>.

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¹ Brady, M., General Counsel, Detroit Land Bank Authority (interview conducted by Mary Warlow Bushel, August 17, 2016).

² U.S. Department of the Treasury. (n.d.). *Hardest hit fund*. Retrieved from www.treasury.gov/initiatives/financial-stability/TARP-Programs/housing/hhf/Pages/default.aspx

³ Office of the Inspector General. (2015, June 16). *EPA should update guidance to address the release of potentially harmful quantities of asbestos that can occur under EPA's asbestos demolition standard* (Report no. 15-P-0168). Washington, DC: U.S. Environmental Protection Agency. Retrieved from www.epa.gov/sites/production/files/2015-09/documents/20150616-15-p-0168.pdf