Advancing Sustainability through the City of Gary Demolitions Office

Impact on Sustainability

• Demolition affects the sustainability of material supplies and the health of ecosystems and the public. Deconstruction — the disassembly of a building or structure in order to recover materials that still have economic value — is an excellent way to convert the materials generated in demolition projects from wastes to resources. The practice also creates more jobs than traditional demolition methods.

• Demolition creates massive amounts of waste; according to the US EPA, it contributes to >90% of the largest component of all landfilled waste, construction and demolition (C&D) debris. Diverting C&D waste from landfills conserves resources (both materials and space) and can create economic opportunities within the city.

• In Gary, demolition is largely done to eliminate extremely blighted, derelict buildings, and there is a greater need for demolition in Gary than in many other cities. While deconstructing dilapidated, tax delinquent properties remains a legal conundrum, the city owns many properties that would be appropriate for deconstruction.

• Post-demolition land treatment is also instrumental for land revitalization. Properly removing debris, controlling the quality of infill, and preparing the soil for revegetation are necessary for preventing fugitive dust and stormwater pollution and readying the site to serve as temporary or indefinite green infrastructure.

Current Supportive Practices

• The Demolitions Office regularly incorporates a series of green demolition specifications into its service contracts. Applying these specifications to demolition projects is an important way to support municipal aims to expand healthy and well-maintained green space across the city.

Standout Projects

• **Residential Housing Deconstruction Pilot Project**
In 2016, 12 residential properties were deconstructed during a pilot program in partnership with the Delta Institute. A set of local contractors were trained in deconstruction techniques and the city learned how to prepare bid specifications for deconstruction contracts. The Delta Institute conducted a city-wide assessment of properties fit for future deconstruction along with a full assessment of the market potential and barriers to deconstruction in Gary.

Mayor's *Sustainability* Metrics

• Annual number of residential and non-residential properties deconstructed; demolished
• Average annual deconstruction and demolition project cost including breakdown of hazardous material abatement services, structure removal, and land treatment
• Estimated amount of materials reused and recycled from Demolition Office projects in a given year

Departmental Overview

• The Demolitions Office within the Redevelopment Commission oversees all public demolition activity. The Redevelopment Commission is a division of the Redevelopment Department, responsible for approving redevelopment policy and administering projects to redevelop publicly owned land. Many programs and services fall under the purview of the Redevelopment Commission, which makes their operations highly impactful on municipal sustainability efforts.

Standout Projects Continued

• **Steel City Salvage**
Steel City Salvage is a salvaged building material warehouse co-created by the Delta Institute and the City of Gary 2016. It is currently managed by the Delta Institute. Materials from the deconstruction pilot program were donated to Steel City Salvage, which also accepts donations from the public.

Demolition Recycling Plan Ordinance
This ordinance requires the submission of a waste reduction plan for demolition materials along with the demolition permit application.

Priority Recommendations

Short-term • Achievable in 1-2 years

• Complete the framework and strategy for deconstruction and building materials reuse, mentioned in the Delta Institute's Deconstruction and Reuse Guide 2nd Edition.
• Hold demolition contractors accountable for providing and executing their waste reduction and recycling plan required by the Demolition Recycling Plan ordinance.
• Incorporate the green demolition specifications into all demolition contracts to maximize the demolition sites properly prepared for green infrastructure.
• Release more bids for deconstruction so that the contractors trained in deconstruction can use their skills and a larger market is created for those skills.

Longer-term • Undertake after increasing effectiveness of current programs

• Work with the Green Urbanism Department and Gary Workforce Development to use the construction skills gap assessment conducted by the Delta Institute to develop green job training programs.

Recommendations continued on back

Resources

• **Other Departments/Divisions:** Gary Department of Environmental Affairs & Green Urbanism, Workforce Development Branch of the Gary Economic Development Corporation, Vehicle Maintenance

• Delta Institute; OAI, inc.; BMRA

Electronic Resources

• EPA Reuse and Recycling Opportunities in Demolition
• EPA Green Demolition Bid Development Tool
• Delta Institute - Deconstruction and Reuse Guide

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Recommendations

Short-term • Achievable in 1-2 years

Resume efforts to increase deconstruction in the city.

• Complete the framework and strategy for deconstruction and building materials reuse, mentioned in the Delta Institute's Deconstruction and Reuse Guide 2nd Edition.

• Hold demolition contractors accountable for providing and executing their waste reduction and recycling plan required by the Demolition Recycling Plan ordinance.

• Acquire and use the market assessment conducted by the Delta Institute to plan more deconstruction projects in Gary.

• Incorporate existing green demolition specifications into all demolition contracts to maximize the demolition sites properly prepared for green infrastructure. Requiring a salvage appraisal as part of the demolition permitting process is another possible mechanism to increase materials recovery.

Increase public education.

• The city currently provides some information on its aspiration to expand its deconstruction program on the Redevelopment Website. Further this stated interest by including deconstruction expansion as a goal in the City's Comprehensive Plan.

Green the Demolition Fleet.

• Work with vehicle maintenance to upgrade heavy construction equipment with clean diesel retrofits. Plan to replace equipment with the cleanest and most efficient accessible technology. Adhere to a maintenance schedule to maintain performance.

Medium-term • Achievable in 2-5 years

• Work with the Green Urbanism Department and Gary Workforce Development to use the construction skills gap assessment conducted by the Delta Institute to develop green job training programs. Deconstruction skills should supplement general construction training because there is still a limited market for deconstruction, but general construction skills are in demand and transferable to deconstruction projects.

• Release more bids for deconstruction instead of unsystematic demolition so that the contractors trained in deconstruction can use their skills and a larger market is created for those skills.

Longer-term • Ambitious and more difficult to achieve in the near term due to cost, political will, or lack of existing support systems

Adopt Supportive Policies

Strengthen the existing Demolition Recycling Plan ordinance by passing a mandatory C&D debris recycling ordinance. Reintroduce the C&D debris recycling ordinance proposed in 2013. This will help maximize materials diversion and job creation in current blight elimination efforts and future development projects involving the removal of salvageable buildings.

• Look to other cities investing in deconstruction for models to adapt to Gary. Baltimore is one example of a city successfully using deconstruction to sustainably eliminate blight and create economic opportunities.