



DELAWARE VALLEY
REGIONAL PLANNING
COMMISSION

RECLAIMING BROWNFIELDS

a PRIMER
for MUNICIPALITIES

2008



DELAWARE VALLEY
REGIONAL PLANNING
COMMISSION

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Reclaiming Brownfields: A Primer for Municipalities

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ABSTRACT

This resource provides information about brownfields redevelopment targeted to municipal planners and decision-makers. The primer defines brownfields, identifies benefits and barriers involved in brownfield redevelopment, discusses related issues such as green building and equitable development, and describes Pennsylvania, New Jersey, and federal brownfields funding and technical assistance resources. The primer is organized within a folder. The folder also contains case studies of brownfield redevelopment projects from the region, as well as two previously-published DVRPC resources on brownfields: the *Brownfields Resource Guide: Funding and Technical Assistance for Remediation and Reuse* (publication number 07052) and *Municipal Implementation Tool #10: Reclaiming Brownfields*.



Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty, and intercity agency that provides continuing, comprehensive, and coordinated planning to shape a vision for the future growth of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery counties, as well as the City of Philadelphia, in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer counties in New Jersey. DVRPC provides technical assistance and services; conducts high-priority studies that respond to the requests and demands of member state and local governments; fosters cooperation among various constituents to forge a consensus on diverse regional issues; determines and meets the needs of the private sector; and practices public outreach efforts to promote two-way communication and public awareness of regional issues and the Commission.



Our logo is adapted from the official DVRPC seal, and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole, while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

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ABOUT THIS PRIMER

There are numerous brownfields in the Delaware Valley region, and each represents an opportunity to improve the environment, create economic opportunity, and restore a community's physical and social fabric. In recognition of the many benefits of brownfield redevelopment, the Delaware Valley Regional Planning Commission (DVRPC) includes the rebuilding of abandoned brownfield sites as a goal in the *Destination 2030* Long Range Plan. To support this goal, DVRPC created *Reclaiming Brownfields: A Primer for Municipalities*. This resource was created to foster awareness among local government decision-makers about the benefits and challenges of brownfield redevelopment.

Reclaiming Brownfields: A Primer for Municipalities is packaged in a folder with a selection of other brownfields resources created by DVRPC. The folder includes:

Reclaiming Brownfields: A Primer for Municipalities

Brownfields Resource Guide

Municipal Implementation Tool #10: Reclaiming Brownfields

Case Studies

- American Metro Center, Hamilton Township, Mercer County, NJ
- Greensgrow Farms, Kensington, City of Philadelphia, PA
- Pembroke North, Radnor Township, Delaware County, PA
- Philadelphia Navy Yard, City of Philadelphia, PA
- Riverfront North, Bristol Borough, Bucks County, PA
- Route 73 South Redevelopment Area, Borough of Palmyra, Burlington County, NJ
- The Victor Building, City of Camden, Camden County, NJ

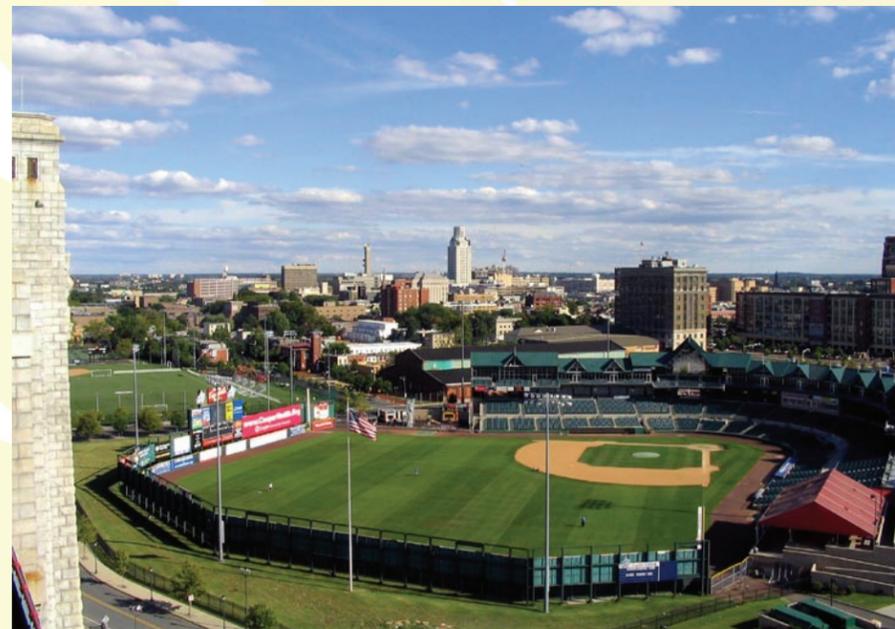
For more information about DVRPC's resources for brownfield redevelopment, please contact Evangeline Linkous, Planning Analyst, DVRPC, at (215) 238-2865 or elinkous@dvrpc.org.

WHAT IS A BROWNFIELD?

DEFINITION

A brownfield is a property that is abandoned or underutilized because of either *real or perceived* contamination. Definitions from relevant agencies include:

- **United States Environmental Protection Agency**
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.
- **United States Conference of Mayors**
A brownfield is an abandoned or underutilized property where expansion or redevelopment is complicated by either real or perceived environmental contamination.
- **State of New Jersey**
A brownfield is defined under New Jersey state law (N.J.S.A. 58:10B-23.d) as "any former or current commercial or industrial site that is currently vacant or underutilized and on which there has been, or there is suspected to have been, a discharge of a contaminant."
- **Commonwealth of Pennsylvania**
The main Pennsylvania program that administers brownfields programs is called Land Recycling. The Land Recycling program deals with the voluntary cleanup and reuse of contaminated commercial and industrial sites.



A 10-acre former industrial property was redeveloped into Campbell's Field ballpark. Home to the Camden Riversharks, Campbell's Field is a centerpiece of the redeveloped Camden, New Jersey waterfront. Source: www.bridgeandtunnelclub.com

- **Create a strong and coordinated messaging campaign** to communicate the local government's interest in brownfield redevelopment to potential investors. This may include the preparation of professional real estate listings to attract private capital.
- **Work with developers to leverage public resources** that may be available for brownfield remediation projects at the federal and state levels.
- **Assist developers** in establishing community support for their projects.
- **Revise existing zoning** in order to allow for additional, appropriate forms of development on existing brownfields. For instance, zoning could be updated from industrial to mixed use.
- **Streamline permit review processes** in order to facilitate the completion of costly predevelopment and cleanup tasks.



O'Neill Properties is remediating and redeveloping a 77-acre brownfield in Malvern, Pennsylvania. Formerly the site of the Worthington Steel Factory, the new mixed-use development will be called Uptown Worthington and will feature retail, residential, and office uses. Source: www.oneillproperties.com

Local governments must identify and leverage key available resources in order to attract investors and get projects off the ground!

ACTIONS FOR LOCAL GOVERNMENTS

STEPS LOCAL GOVERNMENTS CAN TAKE TO FACILITATE REUSE OF BROWNFIELDS

- Utilize PASiteSearch and/or New Jersey Brownfields Site Mart by **listing publicly-controlled brownfields that are available for redevelopment.** Private owners of contaminated properties should be encouraged to list their properties on these resources as well.
- **Develop and maintain municipal brownfield inventories** as part of local comprehensive planning efforts.
- **Provide local tax incentives** (abatements, tax increment finance districts, etc.) that make the remediation and reuse of brownfield properties more attractive to developers.



A TRADITIONAL 21st Century PENNSYLVANIA TOWN



Images from a brochure for the Town of Bryn Eyre, a traditional-neighborhood community being developed as part of the redevelopment of the 3,000-acre Bethlehem Steel brownfield site (shown at top). Located just northwest of the Delaware Valley region in Berks County, Pennsylvania, the town will include an estimated 12,500 homes and space for 16,000 jobs. Source: www.may8consulting.com

CONTAMINATION AND UNCERTAINTY

It is important to note that a property may be identified as a brownfield based on real or perceived contamination. Prospective participants in the redevelopment process—including developers, lenders, and public partners—are likely to view properties where environmental contamination may have occurred as high risk. In the development arena, unknowns translate into risk—of potential cost overruns, time delays, regulatory changes, and other “deal killers.” This means that properties where industrial activities, automobile services, and other uses involving chemicals and heavy metals took place may remain vacant or underutilized as investors focus on more predictable development opportunities. Until an environmental assessment takes place that clearly identifies the environmental conditions at a brownfield site—thus providing a developer with knowledge of the time and costs required for redevelopment—the potential contamination creates uncertainty and thwarts reuse.



Westrum Development Company transformed a brownfield site into Brewerytown Square, the first phase of a larger master-planned new home community that will eventually encompass 600-700 homes on 17 adjoining acres. Source: www.philadelphiasustainabilityawards.com

BROWNFIELDS AND GREYFIELDS

Brownfields should be distinguished from greyfields. Greyfield is a term used to describe formerly-viable retail and commercial shopping sites (such as malls and shopping centers) that have been abandoned as newer commercial developments draw shoppers away. Usually, there is very little commercial activity at a greyfield site, or all tenants have vacated the premises, leaving only empty buildings behind. Greyfields take their name from the vast asphalt parking lots that typically dominate these abandoned sites. The main difference between a brownfield and a greyfield is that a brownfield is (or is perceived to be) contaminated, whereas a greyfield is underutilized only due to disinvestment.

ARE THERE BROWNFIELDS IN YOUR COMMUNITY?

Abandoned industrial sites are easily recognized as brownfields. However, communities should also be aware of the less-apparent brownfield sites that, if reused, present community and economic development opportunities.

Examples of sometimes-overlooked brownfields include:

- Abandoned or underutilized gas stations
- Former automobile service facilities
- Vacant lumber yards
- Former transportation depots or transfer facilities
- Abandoned storage sites

OVERVIEW: THE BROWNFIELD REDEVELOPMENT PROCESS

The brownfield redevelopment process typically follows four steps. Within each of these steps, there are multiple activities that may occur, and the order of these activities may vary. This description of the redevelopment process is drawn from *Anatomy of Brownfields Redevelopment*, part of the Brownfields Solutions Series from the U.S. Environmental Protection Agency. Consult this source for a more detailed description of the brownfield redevelopment process.

PRE-DEVELOPMENT

- **Identify and refine a development idea** – One of the first steps in the pre-development process is to identify and assess potential reuses for the property. Keep in mind that reuse will be driven by the cleanup standard implemented. The input of the community should also be reflected in development concepts to ensure that a project has stakeholder support.
- **Conduct due diligence** – Prior to purchasing a property, it may be appropriate to obtain property assessments, research land and building titles, and conduct outreach to stakeholders. A developer is likely to put together a pro forma analysis to determine the economic viability of the project. A Phase I (and Phase II if necessary) environmental assessment is also typical at this stage of pre-development.
- **Secure access to the property** – Typically, a Phase I assessment will precede property acquisition, meaning access to the site may be required. Strategize how property ownership or control will be acquired once the assessment is complete.
- **Identify sources of funding** – Funding for brownfield redevelopment projects may include debt financing, equity financing, tax credits, tax abatements, grants, bonds, and other public and private sources.

SECURING THE DEAL

- **Contract negotiation** – Once the pre-development step has yielded the decision to purchase a property and continue with a project, contract terms between the buyer and seller must be negotiated. In addition to normal property and building issues, contracts for brownfield properties should determine liability for cleanup.
- **Secure financing** – Brownfield projects are often funded through a combination of private and public sources.
- **Establish a remedial action plan** – In brownfields redevelopment, it is difficult to transfer a property between owners if the remediation costs are not quantified. Therefore, in most situations, environmental contamination on a property is completely characterized and a remedial action plan is put in place before a property is secured.
- **Securing the property and formal commitment** – The property should be obtained through a purchase or sale agreement, or involuntary acquisition methods such as foreclosure. Once obtained, any zoning changes that may be required should be pursued.



Bellmawr Borough, New Jersey, is exploring transit-oriented redevelopment of the Bellmawr Sanitary Landfills. Source: Camden County

SITE REUSE ASSESSMENT

Selecting the appropriate reuse for a brownfield site should require the consideration of several factors, including:

- Property characteristics
 - Acreage
 - Topography
 - Existing improvements
 - Infrastructure
 - Zoning
- Physical setting
 - Property features
 - Property location and access
 - Neighboring land use and municipal development plans
 - Relationship of property to region
- Ownership and use
 - Current and historical past uses
 - Ownership
 - Current owner or purchaser preferences and plans
 - Needs and interests of neighboring residents
- Economic synergies
 - Demographic trends
 - Growing industries
 - Changing markets
 - Opportunities for public-private partnerships
 - Available incentives and programs

STRATEGIES FOR PROMOTING SITE REUSE

- **Involve stakeholders** to generate financial, political, and community capital to support a project. Projects with support are attractive to investors, public funding, and end users.
- Utilize **planning strategies** to remove impediments to project progress and create value at a site. Planning efforts that can be helpful for brownfield redevelopment include revising zoning, assembling parcels, creating synergies between sites, and creating transportation assets.
- **Create a vision** to build consensus about project reuse and create excitement among stakeholders. Strategies for creating a vision include conducting surveys, hosting community workshops, and organizing design charettes.
- Forge **public-private partnerships**. Public partners in the redevelopment process can reposition or gain access to sites, act as conduits for grants/funding, and assist in planning. Private partners have expertise in development to help move projects forward on time and on budget.
- Consider **building green** to combat the stigma of brownfields and create interest in a project, while also reducing the negative environmental impacts of development.
- Utilize **site location resources** such as PASiteSearch or the New Jersey Brownfields Site Mart to promote sites.

MARKET ANALYSIS AND PROMOTING BROWNFIELD REUSE

This Fact Sheet summarizes two key processes in the redevelopment of brownfields: market analysis and marketing. The information presented here is based on the *Real Estate Development and Contaminated Sites: Achieving Success in Today's Regulatory Environment* course manual from the U.S. Environmental Protection Agency.

MARKET ANALYSIS AND FEASIBILITY

The purpose of a market analysis is to identify opportunities for growth and development within the real estate market. A market analysis for a brownfield project is similar to that of a conventional development project in many ways, except that the developer must also consider issues of risk and liability related to environmental contamination. There are a number of approaches to conducting a market analysis, which may focus on one or a number of the following: the local economy, a particular real estate market, or project marketability.

A key first step in conducting a market analysis is development of a pro forma. A pro forma is a statement that represents the probable future net operating income of an investment property. A pro forma is also sometimes called an operating or cash-flow statement, or an income-and-expense analysis.

Some of the questions a market analysis should consider are:

- Who will be the end-user?
- What price will the end-user pay?
- How quickly will the project be absorbed in the market?
- How might the project be planned or marketed to make it more competitive in its market?
- What impact (if any) will there be from the stigma of brownfield/environmental contamination?
- What will be the impact of unexpected environmental remediation cost increases on project feasibility?
- What will be the impact of unexpected environmental remediation time delays on project feasibility?
- What will be the impact of a softened market on the project?
- What are the challenges in obtaining control of the site?
- Can the project be insured?



In Riverside Township, New Jersey, planning is underway for the transformation of an area known as the Golden Triangle into a \$200 million transit-oriented, mixed-use development. The centerpiece of the 32-acre brownfield site is the Keystone Watchcase Tower, which has been vacant for more than 50 years and is located directly opposite an NJ Transit River LINE station. Kaplan Companies, Keating Development Companies, and Pulte Homes have signed a development agreement with the township. Source: Rutgers University

CLEANUP AND DEVELOPMENT

- **Approvals** – Obtain all land use and construction approvals and secure permits.
- **Cleanup** – Property cleanup is conducted based on the remedial action plan. If an entity that did not contribute to the contamination is performing the remediation, it may do so through a state voluntary cleanup program, which may limit liability associated with any residual or newly-discovered contamination after cleanup. A cleanup may be considered complete when local, state, or federal regulatory closure (e.g., a No Further Action Letter) is issued.
- **Integrate cleanup and construction** – Based on assessment activities, planned cleanup actions, and stakeholder input, developers are typically able to integrate cleanup and construction activities.
- **Property sale or lease** – Leasing may begin when the construction schedule is determined.
- **Completion and formal opening** – An opening ceremony in which brokers, neighbors, and elected officials are invited to view the completed project can boost goodwill and support for the project and development team.

PROPERTY MANAGEMENT

- **Long-term operations and maintenance of remedial systems** – Some remedial systems, such as groundwater pump-and-treat systems, require long-term operation and maintenance. In these instances, the property owner may be responsible for submitting monitoring reports to the agency with regulatory oversight. Many brownfield properties incorporate engineering and institutional controls in their remedial plans to restrict property access or use. Property owners must maintain awareness of these restrictions and ensure that the restrictions transfer to the new owner if the property is sold.

THREE COMMON BROWNFIELD REDEVELOPMENT SCENARIOS

Private Redevelopment

A developer takes responsibility for the entire redevelopment process but may require some limited public investment to first define the extent of contamination.

Public-Private Redevelopment

In typical public-private partnerships associated with brownfields restoration, the public entity usually sponsors the project and provides some initial funding (often for environmental assessments and infrastructure), and the private sector funds and manages the pre-development and construction phases.

Public-led Redevelopment

In a typical public redevelopment scenario, a municipality takes responsibility for the entire assessment and cleanup process. Usually, the municipality takes ownership of the property by foreclosure, eminent domain, or voluntary purchase. Once remediated, the property may be used by the municipality, or it may be sold or transferred to the local economic development authority, a community development corporation, or a developer.

BROWNFIELD REDEVELOPMENT: BENEFITS AND BARRIERS

BENEFITS OF BROWNFIELD REDEVELOPMENT

Facilitating and investing in brownfield redevelopment projects can benefit municipalities in myriad ways, among them:

- Brownfield cleanup and reuse stimulates new investment in underutilized properties. The U.S. Department of Environmental Protection has shown that for every \$1 of public money invested in brownfields, \$2.48 in private investment is leveraged at the same site.
- Brownfield redevelopment creates tax revenues by converting underutilized properties into economic engines. In a survey of cities organized by the U.S. Conference of Mayors, 52 percent of responding cities stated that if their brownfields were redeveloped, they could realize nearly \$958 million to \$2.2 billion in additional tax revenues.
- Brownfield redevelopment creates jobs. The U.S. Conference of Mayors survey indicated that 83,171 jobs had been created from former brownfield sites in 71 cities. Respondents indicated that nearly twice that many new jobs could be created on existing brownfield sites if redeveloped.
- Brownfield redevelopment is a critical tool for community development. When abandoned or unmonitored sites are redeveloped with more dynamic uses, public safety is improved, jobs may be created, and blight is removed. Brownfield redevelopment can include recreation space or community centers that support a neighborhood's social fabric.
- Brownfield cleanup enhances public and environmental health through the remediation of contaminated properties.
- The reuse of brownfields encourages efficient land use, preventing sprawl and protecting open space, by targeting new construction to previously-developed areas.
- Brownfield redevelopment conserves public capital by directing new construction to areas that are already served by existing infrastructure, such as roadways and utility lines.
- Brownfield redevelopment replaces blighted buildings and landscapes with more attractive forms of development. Retail, mixed-use, housing, and commercial projects are typical uses for redeveloped brownfield sites.



A 90-acre brownfield, previously owned by the Philadelphia Electric Company (PECO), will be redeveloped as part of a plan (left) to revitalize the waterfront in Chester, Pennsylvania. Preferred Real Estate Investments purchased much of the property and renovated PECO's coal-fired power plant (right). Source: www.epa.gov

EPA'S GREEN BUILDING ON BROWNFIELDS INITIATIVE

Through the Green Buildings on Brownfields Initiative, EPA works with communities, on a pilot basis, to incorporate environmental considerations into the planning, design, and implementation of their brownfields redevelopment projects. Assistance may be in the form of technical, financial, planning, outreach, design expertise, and/or other needed expertise as identified by the community. Generally, each pilot project will receive expert-consultant services valued at up to \$15,000.

SELECTED RESOURCES FOR BUILDING GREEN

- **American Institute of Architects (AIA)** – AIA conducts advocacy, sponsors initiatives, provides tools and resources, and offers training to support green/sustainable architecture. For more information, and to search the AIA's online list of member architects who specialize in sustainable design, see www.aia.org.
- **American Planning Association (APA)** – The APA administers a number of programs to promote brownfield reuse and other sustainable planning policies. Find out more at www.planning.org.
- **Energy Star** – Energy Star is a joint program of the EPA and the U.S. Department of Energy that promotes energy-efficient products and practices. Visit www.energystar.gov.
- **National Brownfields Associations (NBA)** – The National Brownfield Associations is the only non-profit organization dedicated to promoting sustainable development and encouraging green building on brownfield sites. For more information, go to www.brownfieldassociation.org.
- **Urban Land Institute (ULI)** – Through its Sustainability/Climate Change Policy and Practice Priority Area, ULI seeks to foster effective climate change solutions at the nexus of energy, land use, infrastructure, and housing. Visit www.uli.org for details.
- **U.S. Green Building Council (USGBC)** – The USGBC provides advocacy and education about green buildings and neighborhoods, and administers the Leadership in Energy and Environmental Design (LEED) rating system. The USGBC can help locate a green architect, contractor, or consultant in your area. Go to www.usgbc.org for more information.



One Crescent Drive at the Navy Yard Corporate Center in Philadelphia, Pennsylvania, is the first LEED CS Platinum building in the world. Designed by Robert A.M. Stern and developed by Liberty Property Trust and Synterra Partners, One Crescent Drive incorporates a number of sustainable practices. It was developed on a brownfield site, utilizes innovative energy and water efficiencies, and maximizes use of natural light. The building's use of wind energy alone is estimated to avoid annual emissions of 238,032 pounds of carbon dioxide, 513 pounds of nitrogen oxides, and 1,308 pounds of sulfur dioxide. These environmental benefits are comparable to the planting of 33 acres of mature trees or removing 21 cars from the road. Source: *Robert A.M. Stern Architects*

FROM BROWNFIELDS TO GREEN DEVELOPMENT

THE CASE FOR SUSTAINABILITY

Brownfield redevelopment is, by nature, a “green,” or environmentally-responsible, activity. Through the cleanup of contaminated sites, greater human and environmental health is achieved. Also, brownfield redevelopment is a more sustainable form of land use because it directs investment to areas where infrastructure is already in place—rather than greenfields. However, the sustainable reuse of brownfields can be taken a step further through green development strategies, or development strategies with a reduced negative impact on the environment. Building green is not only an environmental imperative, it can be cost-effective, while also helping to reduce or eliminate the stigma of brownfields.

GREEN DEVELOPMENT STRATEGIES

The U.S. Environmental Protection Agency (EPA) suggests incorporating these strategies for sustainability in brownfield redevelopment projects:

- **Green building:** Green buildings economize on operating costs and significantly reduce impacts on the environment when compared to conventional buildings.
- **Energy efficiency and clean energy production:** Reduce the lifetime energy needs of your project by using energy efficiently and choosing clean energy supply options.
- **Alternative stormwater management:** Reduce runoff and erosion during the construction phase and in the long term through practices such as erosion and sediment control, low impact development techniques, green roofs, stormwater management, and pervious surfaces. Reducing runoff protects nearby streams and rivers, prevents flooding, and recharges aquifers.
- **Environmentally-beneficial/native landscaping:** Use landscaping that needs less irrigation and chemicals, increases wildlife habitat, and reduces stormwater impacts.
- **Reduce construction and demolition debris:** Save money by reducing, reusing, and recycling materials generated during construction and demolition of buildings. This strategy conserves landfill space, reduces the environmental impact of producing new materials, and creates jobs.
- **Benefit the community:** Incorporate smart growth practices, including mixed uses, appropriate density, walkability, and transit options.
- **Reuse existing infrastructure:** Incorporate existing buildings, transportation facilities, and community institutions into project designs to integrate with the existing physical and social fabric.
- **Promote transportation choices:** Provide car-pooling, bicycle, and pedestrian opportunities, and foster public transit use.

For more information, see the EPA’s *Smart Reuse: A Guide to Sustainable Redevelopment of Brownfield Properties*.



The New Jersey Economic Development Authority’s Waterfront Technology Center was developed on a brownfield site in Camden, New Jersey and earned Gold LEED Certification from the U.S. Green Building Council. Source: New Jersey Economic Development Authority

BARRIERS TO BROWNFIELD REDEVELOPMENT

Redeveloping brownfield sites can enhance the social, economic, and physical health of a community. However, the processes involved with bringing such projects to completion can be long and complicated. Below are some of the fundamental issues that municipalities and redevelopment partners should be prepared to address as they move forward with their plans.

- **Costs**
Brownfield cleanup costs can be vast and difficult to estimate. Cleanup costs can sometimes be more than the property’s value.
- **Liability**
A property’s environmental conditions and ownership history determine potential liabilities. If not assuaged, concerns about liability can deter developers and financiers from taking part in projects on brownfields. Federal and state agencies have created policies that reduce the level of risk assumed by brownfield investors.
- **Cleanup considerations**
Environmental assessments and cleanup activities can take longer than the typical real estate development timeline. If unexpected contaminants are discovered, projects may become derailed as market conditions change or expenses increase.
- **Reuse planning**
Plans for brownfield reuse must consider market conditions, the level of contamination, practicable cleanup standards, and community goals.
- **Infrastructure**
Some brownfields are well served by functioning transportation and utility networks. On other sites, the existing infrastructure is either obsolete or at such a level of disrepair that it must be dug up, discarded, and replaced—a potentially long and costly process.
- **Market demand**
Many brownfields are located in industrial zones or on the fringes of urban areas. The existing market demand for various forms of development may be difficult to quantify in these areas, which can be a significant barrier to attracting investors and capital to a site.
- **Financing**
The risks associated with redeveloping contaminated properties can cause banks and other private investors to feel uneasy about underwriting such projects on their own. Private lenders may be reluctant to provide loans to projects that may expose them to environmental liability concerns or where a lack of information about environmental conditions could trigger project delays and cost overruns. The participation of multiple investors may be required and the process of structuring a deal that is amenable to all partners can take several months. Once in place, project financing may include a mix of grants, loans, equity investments, and tax incentives—each with a different maturity date.

BROWNFIELDS: THE FEDERAL FRAMEWORK

THE ENVIRONMENTAL PROTECTION AGENCY'S BROWNFIELDS PROGRAM

The U.S. Environmental Protection Agency (EPA) is the federal agency most actively involved in the remediation and reuse of brownfields. The EPA works with state agencies, municipal governments, and other stakeholders to assess and redevelop contaminated properties in a safe, responsible, and sustainable manner. For detailed information on the EPA's brownfields resources, see www.epa.gov/brownfields.

The EPA's Brownfields Program is designed to achieve four goals:

- **Protecting the environment** – Addressing brownfields to promote the health and well-being of America's people and environment
- **Promoting partnerships** – Enhancing collaboration and communication essential to facilitate brownfields cleanup and reuse
- **Strengthening the marketplace** – Providing financial and technical assistance to bolster the private market
- **Sustaining Reuse** – Redeveloping brownfields to enhance a community's long-term quality of life

The EPA's Brownfields Program is currently funded under the terms of the **Small Business Liability Relief and Brownfields Revitalization Act** of 2002. Sometimes referred to as the "Brownfields Law," the Act provides liability relief to small businesses and certain property owners, enhances state and tribal brownfield response programs, and authorizes a number of grant and technical assistance initiatives that support the cleanup activities of public and quasi-governmental agencies. The liability relief provisions protect landowners that did not contribute to their property's contamination and had no knowledge that the site was polluted at the time they purchased it. The law also protects innocent contiguous property owners and prospective purchasers that are unaffiliated with a site's polluter.



In 1984, polychlorinated biphenols (PCBs) were found at the Paoli Rail Yard site, leading to its designation as a federal Superfund site. A consortium of entities, including SEPTA, Amtrak, the EPA, PennDOT, DVRPC, Chester County, and Tredyffrin and Willistown townships partnered to monitor site cleanup and plan for reuse of the rail yard. Cleanup efforts focused on the 30-acre former rail yard site, contaminated adjacent residential areas, and nearby Valley Creek and its tributaries. In 2005, Superfund cleanup was completed. A new station and mixed-use, transit-oriented development are planned for the area. *Source: www.epa.gov*

COMPETING PRIORITIES FOR REDEVELOPMENT?

Brownfield redevelopment can underscore the competing priorities of conventional economic and community development activities. Economic development officials are often focused on improving economic performance for a city or region, while community development leaders are interested in bolstering social and economic resources for residents in a smaller geographic area. For example, an economic development official may be charged with expanding job opportunities within a city through the redevelopment of a brownfield site, while a community development leader may advocate that any new jobs go to residents in the community where the brownfield is located.

Many strategies used by economic development agencies, such as tax increment financing and eminent domain, may be critiqued as favoring new investment over existing residents and businesses. For example, tax increment financing can direct tax dollars to a new redevelopment project that might otherwise be directed back into the community to fund schools or infrastructure improvements.

EQUITABLE DEVELOPMENT

The challenge for planners and municipal leadership is to balance the development needs of the community with those of the municipality or region. The concept of equitable development can be helpful to guide brownfield redevelopment and resolve some of these competing priorities.

Equitable development strives for social sustainability by removing inequalities and creating opportunities. Equitable development is grounded in four guiding principles:

- Integration of people and place strategies
- Reduction of local and regional disparities
- Promotion of "double bottom line" investments (meaning positive fiscal *and* social performance). Better yet, projects can strive toward "triple bottom line" performance, which incorporates environmental sustainability.
- Inclusion of meaningful community voice, participation, and leadership

The key to forging equitable development outcomes is community involvement. Area residents should be engaged in brownfield redevelopment projects from start-to-finish to create reuse plans that all stakeholders can support. Some of the needs that a community may wish to incorporate into brownfield redevelopment projects include jobs for area residents, child care facilities, or technology centers.

Community involvement helps create more dynamic, equitable projects, but it is also essential for pursuing brownfield grant funding from the U.S. Environmental Protection Agency (EPA). The EPA requires that grant recipients notify communities about redevelopment projects. Grant applications must indicate that reuse plans address resident needs and concerns. Some strategies for involving communities in brownfield redevelopment projects include:

- Survey the community to find out about local needs
- Work with community development corporations (CDCs)
- Establish relationships with local leaders (religious groups are often a good point of entry)
- Organize regular meetings to update the community on project progress
- Celebrate milestones in project remediation and construction

Utilizing equitable development strategies ensures that brownfield redevelopment is a way out of the disinvestment cycle and an exciting opportunity—for regions, cities, and communities.

ECONOMIC, COMMUNITY, AND EQUITABLE DEVELOPMENT

ECONOMIC DEVELOPMENT

Economic development strategies are usually designed to boost employment opportunities and attract or retain businesses. Brownfield redevelopment is an important strategy for economic development because it transforms underutilized properties into new uses that generate tax dollars and create jobs.

In some older, industrial cities and smaller communities that depended on manufacturing as an economic engine, post-war deindustrialization resulted in job loss and a built environment characterized by abandoned manufacturing sites. In these contexts, brownfield redevelopment is necessary to turn around the local—and sometimes regional—economy. Even in thriving urban areas, brownfield sites can negatively impact surrounding communities, devaluing property and triggering a pattern of disinvestment.

Viewed from an economic development perspective, brownfield redevelopment projects typically focus on the real estate development process. The goal is to find the “highest and best use” for a brownfield redevelopment parcel to create maximum tax dollars and new jobs. In addition to generating new opportunities at the parcel level, these projects typically aim to stimulate growth in the surrounding area.

COMMUNITY DEVELOPMENT

Community development activities are typically concerned with enhancing quality of life for a neighborhood, often through creation of jobs, housing, recreational opportunities, and social services. Community development efforts focus on the needs of local residents, and often take place in lower-income areas where these needs are most acute.

There are many reasons why brownfield redevelopment is important in the community development context. Many brownfields are located in areas of concentrated poverty and distressed physical environments. Often, residents in these communities experience lower levels of employment and health compared to the municipality as a whole. The presence of contaminated, unmonitored sites can reinforce cycles of disinvestment and social distress within these communities. Likewise, the redevelopment of brownfield sites in disadvantaged areas can break these cycles if the needs of area residents are incorporated into project plans.

Because brownfield remediation is costly, brownfield redevelopment is most likely to take place in areas with stronger markets. As a result, brownfields in disadvantaged neighborhoods are less likely to be redeveloped, and trends of blight and social distress are perpetuated. Although brownfields in neighborhoods with no-to-low market demand create serious challenges, brownfields in communities where new investment is occurring (sometimes called “gentrifying” neighborhoods) can raise other issues. In particular, use of eminent domain, stepped-up foreclosure activity, and increases in rent may displace existing residents and businesses as new investors move in.

EPA BROWNFIELDS FUNDING AND TECHNICAL ASSISTANCE

Brownfield grants are the foundation of the Brownfields Program. Brownfield grants support revitalization efforts by funding environmental assessment, cleanup, and job training activities. EPA brownfield grants include:

- **Brownfields Assessment Grants** provide funding for brownfield inventories, planning, environmental assessments, and community outreach. An eligible entity may apply for up to \$200,000 to assess a site contaminated by hazardous substances, pollutants, or other contaminants, and up to \$200,000 to address a site contaminated by petroleum. Three or more eligible entities may apply together for up to \$1 million to assess a minimum of five sites.
- **Brownfields Revolving Loan Fund (RLF) Grants** provide funding to capitalize loans that are used for brownfields cleanup. An eligible entity may apply for up to \$1 million, or coalitions of eligible entities may apply together for up to \$1 million per entity.
- **Brownfields Job Training Grants** provide environmental training for residents of brownfields communities. An eligible entity may apply for up to \$200,000 to develop training programs that help remediate brownfields, spur economic development, and produce highly-qualified environmental technicians.
- **Brownfields Cleanup Grants** provide direct funding for cleanup activities at certain properties with planned greenspace, recreational, or other nonprofit uses. An eligible entity may apply for up to \$200,000 per site, which may be used to address sites contaminated by petroleum and hazardous substances, pollutants, and other contaminants.

In addition to these grants, EPA offers brownfields funding through the **State and Tribal Response Program**, a \$50 million non-competitive grant program that provides a flexible source of funding to states and tribes to increase their capacity to oversee and support brownfields projects. Assistance is also available through **Technical Assistance** programs and **Targeted Brownfields Assessments**. For a detailed listing of brownfield grants and technical assistance for brownfields projects in the Delaware Valley, see DVRPC’s *Brownfields Resource Guide: Funding and Technical Assistance for Remediation and Reuse*.

LEGISLATIVE BACKGROUND

An unintended consequence of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), passed in 1980, was reduced interest in brownfield redevelopment. The intent of CERCLA was to promote the cleanup of contaminated land and to provide opportunities for the EPA to recover cleanup costs from potentially responsible parties (PRPs). CERCLA established Superfund, the federal government’s program to clean up the nation’s uncontrolled hazardous waste sites. Under Superfund, costs of remediation fall on all parties in control of a polluted site, regardless of who was at fault. Furthermore, liability is open-ended under Superfund, which means that PRPs can be forced to pay for any future cleanup costs, and the EPA often requires that Superfund sites be cleaned to very high standards. Fear of being identified as a PRP and encountering liability reduced interest in brownfield redevelopment following the passage of CERCLA. Also, many polluted sites had been abandoned and past polluters no longer existed, further thwarting remediation under CERCLA. Lending institutions frequently rejected loan applications for projects with potential environmental liability in a practice known as “brownlining.” Today’s federal framework for brownfield redevelopment provides liability relief, funding, and technical assistance that again makes brownfield redevelopment an attractive opportunity.

BROWNFIELD REDEVELOPMENT: FOCUS ON PENNSYLVANIA

In Pennsylvania, brownfield redevelopment is a combined effort through the Commonwealth's Land Recycling and Brownfield Redevelopment Programs. Much of the information provided here was obtained from the Pennsylvania Department of Environmental Protection's (PA DEP) Fact Sheet, *Overview of the Land Recycling Program* (which can be viewed at www.blackrockenvironmental.com/Land_Recycling_Program_Factsheet.pdf). For more information, visit the PA DEP website at www.depweb.state.pa.us and click on Land Topics, then select Brownfield Redevelopment.

LAND RECYCLING PROGRAM

The Land Recycling Program is often referred to as Act 2 after the primary law establishing the program. The program is administered by the PA DEP and encourages the voluntary cleanup and reuse of contaminated commercial and industrial sites.

The four cornerstones of the Land Recycling Program are:

- Uniform cleanup standards based on health and environmental risks
- Standardized review procedures
- Release from liability
- Financial assistance

Although widely known as Act 2, the Land Recycling Program includes four bills:

- **Act 2 of 1995 is the Land Recycling and Environmental Remediation Standards Act.** This law creates a realistic framework for setting cleanup standards, provides special incentives for developing abandoned sites, releases responsible parties from liability when cleanup standards are met, sets deadlines for PA DEP action, and provides funding for environmental studies and cleanups.
- **Act 3 of 1995 is the Economic Development Agency, Fiduciary, and Lender Environmental Liability Protection Act.** This act limits the environmental liability of those involved in redeveloping and financing a recycled industrial site.
- **Act 4 of 1995 is the Industrial Sites Environmental Assessment Act.** This act provides up to \$2 million for environmental assessments in certain communities and for cleanups in certain cities through the Pennsylvania Department of Community and Economic Development (DCED).
- **Act 6 of 2000 is the Industrial Sites Environmental Assessment Act.** This act expands the grant program under Act 4 of 1995 and provides for performance-based loans.



A series of mixed-use commercial, office, and residential developments linked by pedestrian and bike paths are planned for a 26-acre site along the Delaware River just north of Philadelphia in Bensalem Township, Pennsylvania. Known as Riverfront South or Waterside, the site is located within a designated Enterprise Zone. Source: www.epa.gov

ASSESSMENT PHASES

A **Phase 1 Environmental Site Assessment (ESA)** identifies potential or existing environmental contamination liabilities. A Phase 1 ESA is generally part of an environmental due diligence process. A Phase 1 ESA reports on environmental conditions in which release of contaminants may have occurred. The ESA is typically based on some combination of research, records, computer models, and visual research. Rarely is testing conducted as part of Phase 1. A Phase 1 assessment will consider the physical improvements and the underlying land at the site to evaluate potential indoor air quality, soil contamination, groundwater quality, and surface water quality issues, as well as the potential presence of chemical residues, asbestos, hazardous substances, and mold and mildew.

A Phase 1 ESA can help determine whether testing should occur if further information is required. It does not obligate reporting to regulatory agencies. The assessment can provide liability protection from future enforcement for property owners by identifying the presence and extent of existing contamination. A Phase 1 ESA is a key step before a project can move forward because it helps a developer determine the level of risk involved in redevelopment. The assessment will also guide the identification of an appropriate reuse because the presence or extent of contamination on parts of the parcel may limit the viability of redevelopment for residential or other uses.

A **Phase 2 Environmental Site Assessment** is undertaken if the Phase 1 study indicates that contamination is possible. In Phase 2, sampling and testing of soil and groundwater determine the level of contamination. A Phase 2 assessment should identify appropriate remediation options.

A **Phase 3 Environmental Assessment** is conducted if Phase 2 confirms the presence of potential pollutants. Phase 3 is the remediation phase. A detailed remediation plan should be developed that describes the objectives, methodology, and procedures to be used. After cleanup, a post-remediation validation report should be produced to demonstrate that remediation targets have been achieved.



The Phoenix Awards provide national recognition for excellence in brownfield redevelopment. The first New Jersey site to receive a Phoenix Award was a 31-acre former steel plant located along the waterfront in the City of Trenton, New Jersey. The site now features an entertainment facility, a minor league baseball stadium, and open space. Source: *New Jersey Department of Environmental Protection (left); ACT Engineers (right)*

BROWNFIELD SITE ASSESSMENT

ASSESSMENTS: SETTING THE STAGE FOR REDEVELOPMENT

The site assessment is a critical stage in the brownfield pre-development process. The assessment provides information about the environmental conditions at the site. Assessments typically proceed through three phases, from an initial assessment based on data (Phase I), to a detailed assessment involving soil and ground water testing (Phase 2), and finally to remediation and certification that cleanup is complete (Phase 3).

The first two phases of assessments lay the foundation for a successful brownfield redevelopment project because assessments are used to identify and refine redevelopment plans. As with a typical development project, the developer will seek to identify the highest and best use of a property. However, contamination may create barriers to certain uses. Clean-up standards for residential use are more stringent—and usually far more expensive to achieve—than for commercial or industrial use. A developer may decide that it is impracticable to remediate a site to residential standards, or may elect to build residential only on those portions of a site that were subject to little or no contamination.

In addition to driving the redevelopment use for a brownfield project, site assessments are critical because the major challenge of brownfield redevelopment is the unknown level of contamination. If unexpected levels or types of contaminants are present, serious delays and new costs may alter or derail a project. Due to these risks, public assistance in the assessment phase is often critical to moving projects forward.

It is important to note that pre-development is typically an iterative, rather than a linear, process. As the assessments uncover new information about environmental conditions at a site, the redevelopment plan will continue to evolve. Once information is available about the nature of contamination at the site, a developer can more accurately assess redevelopment costs and risks, making remediation and construction a fairly straightforward process.



The Keystone Industrial Port Complex is a 2,500-acre brownfield site in Bucks County, Pennsylvania. With miles of utility infrastructure, 75 miles of rail, and a deep water port on the Delaware River, the former steel plant site is being redeveloped as an industrial hub. Osstem, a South Korean maker of titanium dental implants, and Gamesa, a Spanish windmill manufacturer, are among the companies locating and creating jobs at the site. Source: www.eswp.com

Two components of the Land Recycling Program merit particular attention for streamlining the process of recycling and redeveloping old industrial sites.

The **uniform cleanup standards** established under Act 2 provide a consistent framework for cleanups. Standards are established for three types of cleanups: background, statewide health, and site-specific. By meeting one or more of these standards, the remediator receives releases from state liability. Act 3 extends these liability protections to project financiers.

In 2004, the PA DEP and the U.S. Environmental Protection Agency entered into a Memorandum of Agreement establishing Pennsylvania's **One Cleanup Program**. The program clarifies how sites remediated under Pennsylvania's brownfields programs may also satisfy requirements for three key federal laws: the Resource Conservation Recovery Act, the Comprehensive Environmental Response Compensation Liability Act, and the Toxic Substances Control Act.

BROWNFIELD REDEVELOPMENT PROGRAM

Pennsylvania's Brownfield Redevelopment Program includes many of the programs that support the voluntary cleanup program of brownfield sites in Pennsylvania, including financial assistance, long-term stewardship and monitoring, and public outreach.

The Brownfield Action Team (BAT) is the program's most significant initiative. BAT enhances interaction between the PA DEP and the local community by creating a single point of contact for locally-identified, high-priority remediation projects. BAT is responsible for expediting the remediation, reclamation, reuse, and redevelopment of these projects. This team manages and coordinates remediation, permitting procedures, and funding efforts related to redevelopment projects.

OTHER RESOURCES

- **PASiteSearch** is an online database for buyers and sellers to identify available sites and buildings, including brownfield properties, in Pennsylvania. A tool for site selection and economic development, PASiteSearch allows users to search hundreds of Pennsylvania brownfields based on selected site criteria, such as location, allowed use, and whether the site is in a Keystone Opportunity Zone. PASiteSearch is the result of a collaborative effort supported by the Team PA Foundation, DCED, PA DEP, and the Pennsylvania Economic Development Association (PEDA). PASiteSearch can be viewed at www.pasitesearch.com.
- The **Key Sites Initiative** coordinates the knowledge and resources from the PA DEP's Land Recycling Program, PA DEP's Hazardous Sites Cleanup Program, DCED, and local economic development agencies. Through this program, state-funded contractors conduct environmental site assessments and prepare a work plan at sites with an environmental threat where investors have expressed an interest in the property and a prospective occupant is willing to share cleanup costs. As a result of this assessment, the uncertainty of site environmental threats is minimized and the cost of any remediation is defined.
- **Brownfield Inventory Grants** are grants provided by PA DEP to municipalities, counties, and redevelopment authorities to inventory brownfield properties in their area.

BROWNFIELD REDEVELOPMENT: FOCUS ON NEW JERSEY

BROWNFIELDS REDEVELOPMENT TASK FORCE

The Brownfields Redevelopment Task Force is a task force charged with coordinating New Jersey state policy on brownfields redevelopment, developing an inventory of brownfields sites, prioritizing and marketing sites to developers, promoting brownfields redevelopment to implement smart growth strategies, and returning properties to productive use on an expedited basis.

The Task Force was created in 1998 under Section 5 of the New Jersey Brownfield and Contaminated Site Remediation Act. The 13-member Task Force includes six public members appointed to the Task Force by the governor and seven representatives from state agencies.

BROWNFIELDS REDEVELOPMENT INTERAGENCY TEAM

The Brownfields Redevelopment Interagency Team (BRIT) is a resource group comprised of several state departments and agencies. The mission of the BRIT is to streamline and coordinate the brownfield redevelopment process. The BRIT is run out of the New Jersey Department of Community Affairs' Office of Smart Growth.

The BRIT serves several important roles:

- **Review and support of brownfield projects** – For complex brownfield projects, consultations with the BRIT can be helpful to clarify necessary steps and enlist state agency help. Redevelopment projects are individually reviewed by the BRIT in an informal, problem-solving atmosphere.
- **Creation of the New Jersey Brownfields Redevelopment Resource Kit** – The BRIT developed the Brownfields Resource Kit, the first integrated compilation of state resources for brownfields redevelopment. The kit provides a useful reference for support from initial planning stages through project design, cleanup, construction, and reimbursement. This document is available at www.nj.gov/dca/osg/docs/brownfieldsresourcekit.pdf and should be consulted for a detailed and comprehensive listing of resources for brownfield redevelopment in New Jersey.
- **Outreach to brownfields stakeholders** – BRIT members participate in seminars, workshops, and organizational meetings throughout the state as part of outreach and information gathering efforts.

NEW JERSEY BROWNFIELDS SITE MART

The New Jersey Brownfields Site Mart is a free multiple-listing service containing an inventory of brownfield properties throughout New Jersey. Led by the Department of Community Affairs and the New Jersey Redevelopment Authority, the Site Mart is designed to make it easier for developers to locate and build on brownfields. The Site Mart is also a powerful tool for public entities and tracks brownfield success stories. The Site Mart can be accessed online at www.njsitemart.com.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

The New Jersey Department of Environmental Protection (NJ DEP) runs New Jersey's voluntary brownfield cleanup program. The NJ DEP's **Brownfield Remediation and Reuse Element (BRRE)**, formerly the Office of Brownfield Reuse, is charged with coordinating remediation and reuse efforts at brownfield sites and piloting innovative approaches to streamline the revitalization process.

One of the BRRE's initiatives is the **Brownfield Development Area (BDA)** program. The BDA program creates a partnership with municipalities and neighborhoods impacted by multiple brownfield sites, and coordinates planning, resource acquisition, and remediation with a focus on reuse. Individual BDAs are designated through a highly-selective application process.

BRRE is also responsible for the implementation and administration of the **Cleanup Star** and **Unregulated Heating Oil Tank** programs. Under the Cleanup Star program, NJ DEP pre-qualifies environmental professionals as "Cleanup Stars" permitted to investigate and remediate certain low-risk sites and areas of concern with limited oversight. The Unregulated Heating Oil Tank Program similarly relies on pre-qualified professionals to investigate and remediate low-risk unregulated heating oil tanks.

BRRE administers several brownfield incentive programs and services, including:

- The **Hazardous Discharge Site Remediation Fund (HDSRF)** provides grants and loans to investigate and remediate contaminated sites.
- The **Brownfield Reimbursement Program** reimburses developers up to 75 percent of remediation costs based on certain new taxes that are generated from a brownfield project.
- BRRE offers **Prospective Purchaser Agreements** that assist in limiting liability.
- BRRE provides **federal tax incentive certifications** required for expensing brownfield remediation costs.



The Bellmawr Waterfront in the Borough of Bellmawr, New Jersey, is being redeveloped by the real estate company Develcom, with assistance from the borough and Camden County. Project plans call for environmentally-sound smart growth on the 150-acre former landfill site. Source: www.bellmawrwaterfront.com



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CASE STUDY

AMERICAN METRO CENTER

Hamilton Township, Mercer County, NJ

www.lincolnequities.com/amc.html

OVERVIEW

The renovation of the American Standard toilet factory in Hamilton Township, New Jersey transformed an abandoned 62-acre brownfield site into Class A office space with convenient rail access, directly across from New Jersey Transit's Hamilton Station.

SITE HISTORY

American Standard is the world's leading producer of bathroom and kitchen fixtures. In 1917, the company opened a mile-long toilet factory in Hamilton, New Jersey, located along a major rail line with access to the Philadelphia and New York markets. The factory served the region for over seven decades before relocating to Ohio in 2002.

With advocacy from Hamilton Mayor Glen Gilmore, who served from 1999 to 2007, Hamilton Township envisioned brownfield remediation as part of a larger program of economic revitalization. The township created a redevelopment plan with a designated 1,000 acre redevelopment zone, including the dormant factory site. The plan included three components: 1) redevelopment of the American Standard factory, 2) creation of a mixed-use Transit Village in the vicinity of Hamilton Station, and 3) development of housing on part of the former American Standard factory property.



The entrance to American Metro Center. Source: Lincoln Equities Group, LLC

In 2004, the township attracted developer Preferred Real Estate Investments Inc. (PREI) to the American Standard project through a tax incentive program known as payment-in-lieu-of-tax (PILOT). The PILOT program is a property tax abatement that requires an initial payment by the developer in lieu of annual tax payments. PREI purchased the 62-acre site of the former American Standard factory for \$10 million and invested approximately \$60 million in total redevelopment costs, of which \$2 million was spent on site clean-up. Sweetwater Construction Corporation converted the 750,000 square foot factory building into 450,000 square feet of Class A office space. The rehabilitated property, now named American Metro Center, has preserved the factory's original tunneled pottery kilns that sit on the historic railroad tracks. The conversion from factory to office space has retained industrial elements like exposed red brick walls and skylights, creating a nontraditional office environment. In part for maintaining these historic features, PREI received tax credits for renovating the structure.

While the office component of the project proceeded successfully, the housing component stalled due to controversy and a challenging real estate market. The Columbia Group's plans for a 680-unit luxury condominium and townhouse development met with strong community resistance. Residents were

concerned about increased traffic congestion and impacts on the school district. The housing component meant potentially more school-aged children and associated costs to the township; moreover, the tax incentives for the redevelopment project directed \$34 million to the township while bypassing the school district for 12 years. Although the developer was able to obtain approvals for the housing project, these concerns—combined with new local leadership—led the township to rescind the redevelopment plan.

REDEVELOPMENT FINANCING

PREI financed project remediation, which was monitored by the New Jersey Department of Environmental Protection as part of the Industrial Site Recovery Act of 1998.

Hamilton Township provided incentives in the form of the PILOT program. PREI was also eligible for historic tax credits and the New Jersey Department of Commerce's Brownfields Redevelopment Incentive Program, which reimburses up to 75 percent of approved remediation costs.

CURRENT STATUS

The American Metro Center provides office space for 800 professionals and includes a cafeteria, fitness center, and 60-person conference room. Leasing demand for the property has been strong. Duane Morris relocated its Princeton office to American Metro Center and is one of many legal firms located in the building. Other tenants include a publishing firm, a natural resources consulting firm, and a medical claims solutions firm. The property is managed by Lincoln Equities Group. Complementing the transit-orientation of American Metro Center, the New Jersey Department of Transportation and New Jersey Transit designated a Transit Village in the Hamilton Station area. This designation will foster mixed-use, smart growth redevelopment with convenient access to transit.



The mile-long building occupies a 62-acre site. Source: *Meritage Properties*



The renovated building includes oversized windows and historic features such as exposed brick and pottery kilns, as well as oversized windows and landscaped public spaces. Source: *Lincoln Equities Group*

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CASE STUDY

GREENSGROW FARMS

Kensington, Philadelphia, PA

www.greengrow.org

OVERVIEW

Kensington has more brownfields than any other neighborhood of Philadelphia. On one of these former brownfield sites is Greensgrow Farms, the national leader in urban agriculture.

SITE HISTORY

The one-acre parcel of land that would become Greensgrow Farms was previously the site of Boyle Galvanizing, a steel-processing plant that was demolished when Philadelphia's industrial base declined. The vacant property had been abandoned for years, and neighborhood children used the lot as a playground. Concerned about potential contaminants in the soil and demolition debris, Kensington residents petitioned for testing of the site.

In 1993, the U.S. Environmental Protection Agency (EPA) tested the site and located contaminants, primarily lead. Using federal Superfund dollars, the EPA fenced the site and removed the contaminants. Because Boyle Galvanizing was defunct and their assets acquired by Kinark Corporation, EPA settled with Kinark for costs associated with cleanup. After the contaminants were removed, the City of Philadelphia conveyed the abandoned property to the New Kensington Community Development Corporation (CDC).

In the late 1990s, Mary Seton Corboy and former business partner Tom Sereduk decided to farm in Philadelphia. Corboy, a Philadelphia resident, wanted to farm close to home. She also wanted to do something about the lack of fresh food in the area and knew that Philadelphia restaurants had a hard time finding local produce. Recognizing that the only available land close to the Philadelphia market was on former industrial properties, Corboy and Sereduk rented the former Boyle Galvanizing property from the New Kensington CDC for \$150 a month. At the time, the property had no gas, water, or electric service.

In 1998, Corboy and Sereduk began farming at the site. Due to the previous contamination, Greensgrow began by growing lettuce using hydroponics—a process in which crops are grown in water—in lieu of conventional farming practices. Greensgrow began by selling lettuce directly to restaurants, but over time began to sell food at the farm to the local community. Today, Greensgrow produces a variety of farm products using a 6,000 square foot heated greenhouse, three raised beds totaling 4,500 square feet



Greensgrow offers three services out of its Kensington farm: a market stand, a Community Supported Agriculture initiative, and a nursery with plants and gear for the urban gardener. Source: Greensgrow Farms



of organic soil on top of concrete barriers, a 4,000 square foot hydroponics system, a 1,500 square foot nursery 'hoophouse,' flower beds, and bee hives. Greensgrow recently acquired a 6,000 square foot lot across the street that will be used for vermiculture, or composting by worms. To ensure safe reuse of the site and regulatory compliance, Greensgrow works with React Environmental Services, which provides guidance about soil, water, worker health and safety, and other issues related to brownfield reuse.

REDEVELOPMENT FINANCING

As noted, site remediation was conducted using federal Superfund dollars before the property was transformed into a farm. Since the reuse as Greensgrow Farms, financing for the project has come from Corboy and Sereduk's investments and farm revenue. In addition to rent, which has remained \$150 a month since Greensgrow started, Corboy and Sereduk made an initial investment of \$25,000 to start the farm. In the 10 years since, another \$100,000 has been invested in the project. In 2007, the farm earned a profit of just over 2 percent on sales of \$450,000. In 2008, it hopes to make a profit of 5 percent on revenue of \$650,000 to open another operation in Philadelphia.

CURRENT STATUS

In 2008, Greensgrow celebrated its 10th anniversary. From its early days as a small commercial enterprise, Greensgrow has become a model for sustainable urban agriculture, reuse of brownfields and vacant land, and promotion of social entrepreneurship.

Greensgrow has expanded to offer three services. The market stand provides fresh produce grown at Greensgrow and family farms throughout the region. The Greensgrow market also sells local eggs, yogurt, butter, cheese, breads, pie, and hormone-free, pastured meats. Greensgrow's Community Supported Agriculture (CSA) initiative provides farm products from the region to cooperative shareholders for a season that runs from May to November. The nursery at Greensgrow sells plants and gardening supplies for urban gardeners.

Greensgrow also created the non-profit Greensgrow Philadelphia Project, a registered 501c3 that explores projects that help create viable, sustainable reuse of urban space. The Philadelphia Project gave rise to Greensgrow's honey producing operation, marketed as "Honey from the Hood," as well as its biodiesel production effort. The Philadelphia Project is also developing the Neighborhood Urban Agriculture Coalition (NUAC), which will create a model for how small agricultural enterprises can be established in low-income, urbanized areas.



TOP: The farmstand at Greensgrow; BOTTOM LEFT: Biodiesel reactor; BOTTOM RIGHT: Greensgrow growing in raised beds. Source: Greensgrow Farms

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CASE STUDY

PHILADELPHIA NAVY YARD

City of Philadelphia, PA

www.navyyard.org

OVERVIEW

Located just three miles south of Center City Philadelphia, The Navy Yard is a 1,200 acre site with capacity for 15 to 20 million square feet of development, including office, retail, industrial, and residential uses.

SITE HISTORY

The Philadelphia Navy Yard originated on Front Street in 1776 and became an official U.S. Navy facility in 1801, making it the country's first naval shipyard. By the early 20th century, The Navy Yard was outgrowing its Front Street facilities and in 1917 was relocated to its current site in South Philadelphia, at the confluence of the Delaware and Schuylkill rivers. World War II was the heyday of The Navy Yard. During this time, the yard employed 40,000 people who contributed to the repair of 574 ships and the construction of 53, including the U.S.S. New Jersey and U.S.S. Wisconsin. After the war, employment at The Navy Yard dropped to 12,000 and shipbuilding work was increasingly assigned to the private sector. The official closing of the Philadelphia Navy Yard took place on September 27, 1996; however, a portion of the property was soon converted into a commercial shipyard, which is currently owned by Aker Philadelphia. The U.S. Navy continues to maintain a presence on the site, with approximately 1.8 million square feet of space and 2,500 mostly-civilian employees at the site.

In 2000, The Navy Yard was brought under the control of the City of Philadelphia. The Philadelphia Industrial Development Corporation (PIDC) is responsible for overseeing the redevelopment of the site. PIDC is a private, not-for-profit corporation founded in 1958 by the City of Philadelphia and the Greater Philadelphia Chamber of Commerce to promote economic development.

In 2004, PIDC, together with developer Liberty Property Trust/Synterra Partners, selected Robert A.M. Stern Architects to create a master plan to guide development of 522 acres on the site. The property has since been transformed into a major redevelopment area that is now home to a diverse array of land uses, including corporate offices, industrial facilities, restaurants, and research and development laboratories. Residential development and an expanded recreational waterfront area are also planned. The Navy Yard is listed on the National Register of Historic Places, and includes over 187 historic buildings.



A view of The Navy Yard's waterfront. Source: Philadelphia Industrial Development Corporation

REDEVELOPMENT FINANCING

Federal, state, and local programs utilized at The Navy Yard include, but are not limited to:

Federal

- Historic Preservation Tax Credits
- Research and Development Tax Credits

State

- Keystone Opportunity Improvement Zone (KOIZ) Tax Abatements
- Keystone Innovation Zone (KIZ) Tax Credits

Local

- Real Estate Tax Abatements



Master Plan for The Navy Yard. Source: Liberty Property Trust

GOING GREEN

Green buildings and businesses are transforming this former brownfield into a showcase for a greener Philadelphia. One Crescent Drive, a four-story office building at The Navy Yard, is Philadelphia's first LEED building and the first Platinum LEED-certified building in the world. Tasty Baking Company, the maker of Tasty Kakes, will operate at The Navy Yard out of a LEED-registered manufacturing facility and LEED CS-Gold corporate headquarters building, both developed by Liberty Property Trust/Synterra Limited Partners. The Navy Yard is home to the corporate campus for Philadelphia-based clothing manufacturer Urban Outfitters Inc. Located in five rehabilitated buildings formerly used for ship building and maintenance, the Urban Outfitters campus incorporates bioswales that collect stormwater and mitigate solar heat gain and utilizes limited impervious coverage in parking areas. Materials from the original structures were reused in the building's interior. By the end of 2008, Exelon Generation Co. and Epuron will partner to build and operate a solar power plant at the Navy Yard that could power 200 homes. It will be the largest electric solar power plant in any U.S. city, and will have the same ecological impact as planting 300 acres of mature trees.



Shipyards activities can be seen from the cafeteria of the Urban Outfitters corporate campus. Source: Lara Swimmer

CURRENT STATUS

More than 80 companies, several restaurants, and three U.S. Navy units currently occupy 5.5 million square feet of developed space at The Navy Yard. Major office tenants include Barthco International, Rotem, Urban Outfitters, and VITETTA. Tasty Baking Company will move its operations to The Navy Yard in 2009. An estimated 7,000 people are presently employed at The Navy Yard.

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CASE STUDY

ROUTE 73 SOUTH REDEVELOPMENT AREA

Borough of Palmyra, Burlington County, NJ

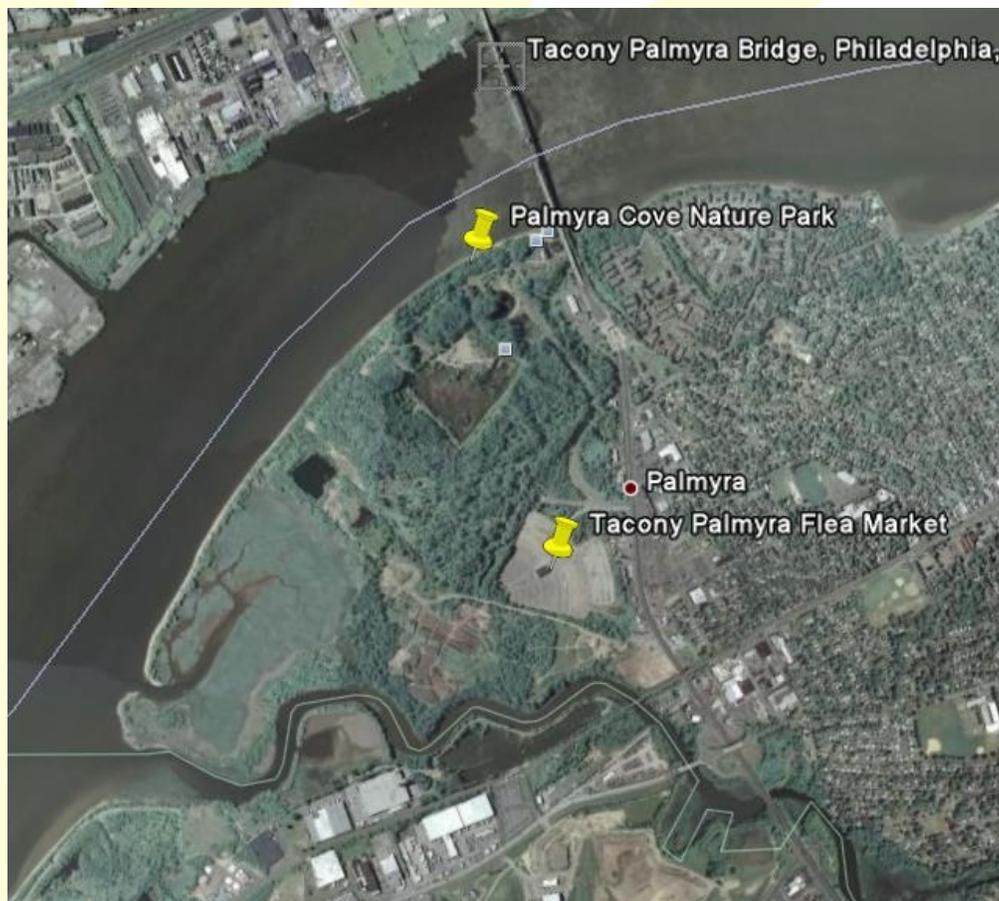
www.state.nj.us/dep//srp/brownfields/bda/palmyra

OVERVIEW

The Route 73 South Redevelopment Area consists of 26 brownfield properties on approximately 186 acres, representing more than 15 percent of Palmyra's total land area. In 2004, the properties were designated a Brownfield Development Area (BDA) by the New Jersey Department of Environmental Planning (NJDEP). Under this program, NJDEP enables coordinated remediation and reuse of multiple brownfield sites. The Borough of Palmyra's plans for reuse of the area call for a mix of uses, including residential, commercial, retail, and recreation.

SITE HISTORY

The Route 73 South Redevelopment Area is located at the base of the Tacony-Palmyra Bridge, a gateway between New Jersey and Philadelphia. It is adjacent to the 350-acre Palmyra Cove Nature Park, located along the Delaware River.



The Route 73 South Redevelopment Area represents more than 15 percent of the Borough of Palmyra's total land area and includes more than two dozen brownfield sites. The project, located at the base of the Tacony-Palmyra Bridge, will be anchored by redevelopment of the Tacony-Palmyra Flea Market into a mix of uses including residential, commercial, and retail. *Source: Google Earth*

Previous and existing property uses in the redevelopment area include deposition of dredge spoils, a private landfill, a private airport, sand and gravel mining, a munitions test area for the Philadelphia-based Frankford arsenal, gasoline service stations, used car dealerships, car repair shops, and residential units.

In July 2003, the properties received designation as an NJDEP BDA. Under the BDA designation, the DEP assigns a dedicated case manager to coordinate remediation and reuse, and to establish a long-term partnership with involved agencies and stakeholders.

The Borough of Palmyra currently holds Tax Sale Certificates and/or plans to acquire parcels in the redevelopment area, and has satisfied Proof of Site Control. Environmental investigation of the properties is underway. Palmyra is in negotiations with developers to create a redevelopment plan.

Plans for reuse center on two “anchor” properties, currently used as a weekend flea market and a leaf-and-wood compositing facility, with a combined size of 165.5 acres. Along with a mix of uses including residential, commercial, and retail, the Borough of Palmyra envisions development of a greenway along Route 73 and creation of a greenbelt buffer along the redevelopment area’s boundary with the Palmyra Cove Nature Park and Pennsauken Creek.

REDEVELOPMENT FINANCING

In 2004, NJDEP presented the Borough of Palmyra with grant funding of \$684,767 through the Hazardous Discharge Site Remediation Funds (HDSRF) program to conduct soil and ground water testing to assess the extent of contamination on the brownfield properties. NJDEP also provided two additional grants of \$1,900,000 each for additional site investigation, as well as another \$750,000 grant for special investigation of the flea market site.

CURRENT STATUS

The Route 73 South Redevelopment Area is currently in the investigation process. During recent investigation work at the flea market property, large quantities of live shells were discovered at the site, leftover from a period during which the property was used as a testing range for recoilless rifle systems used in World War II. While local officials were aware of this use during the war, they were surprised by the amount of live ammunition that was left behind. A munitions team from Knoxville, Tennessee has been detonating the shells on site every week. Due to the live shells, environmental clean up in this area took longer than planned, but development is still going forward, and negotiations to select a project developer are underway.



The site of a weekend flea market, formerly a drive-in movie theater, is a focal point for redevelopment plans. Source: NJDEP



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CASE STUDY

PEMBROKE NORTH

Radnor Township, Delaware County, PA

www.pembrokenorth.com

OVERVIEW

Pembroke North combines several hallmarks of sustainable development. It is a LEED-registered, transit-oriented, pedestrian- and bicycle-friendly infill condominium project on a 4.1-acre former brownfield. The developer, Razak Companies, involved the community during the development process, brought in visionary architects, and restored environmental habitat on site.

SITE HISTORY

Pembroke North is located on the former site of an iron works foundry and, later, the Main Line Land Rover Dealership. Prior to redevelopment, the site had a 92 percent impervious surface coverage ratio. The 4.1 acre site is located within a half-mile of the SEPTA St. David's R5 station and downtown Wayne.

During clean-up, over 11,000 cubic yards of impacted soil was removed from the site. The main contaminant at the site was fuel oil. The infill project was designed to integrate into downtown Wayne's walkable, mixed-use character. Renowned architects Venturi, Scott Brown and Associates designed the building, which includes 54 condominiums on 2.59 acres of land (for a density of 20 dwelling units per acre), with 92 partially-underground vehicle parking spaces as well as bicycle racks. More than one acre of land that was previously covered in impervious surface was returned to a natural state of grass. Existing trees on the site were protected.



The 54-unit condominium project is the first multi-family residential building to be registered for LEED certification in the Greater Philadelphia area. Source: Pembroke North



The site plan for Pembroke North, which is located within a half-mile of SEPTA's St. David's R5 station and downtown Wayne. Source: Pembroke North

Pembroke North is the first multi-family residential building to be registered for LEED certification in the Philadelphia area and includes a number of green features. The building orientation and extensive use of high-efficiency windows allow for abundant natural light and help conserve energy. Geothermal heat pumps, tankless water heaters, and dual-flush toilets reduce energy and water consumption. Indoor air quality is supported through use of no- or low-VOC indoor finishes. Light pollution is controlled through lighting design and fixtures.



During construction of Pembroke North, existing trees on the site were preserved. Source: Pembroke North

The project also includes an innovative stormwater management system. Sub-surface stone beds allow for onsite retention, infiltration, and staged release of stormwater. The onsite management of stormwater and increased pervious surface area means that the project will not tax the area's stormwater system.

Razak Companies worked closely with Radnor Township to create a development plan that fit within the township's Land Use Plan and met community support. A new R-6 zoning district was created for the area that allows an average lot area per dwelling unit of not less than 2,100 square feet. The project includes a walkway to connect residents with adjacent land uses, enhancing pedestrian amenities in the area.

REDEVELOPMENT FINANCING

Razak Companies did not utilize public financing in the project. All assessment and clean up costs were incorporated into the privately-financed construction costs. Total development costs for the project were \$41 million. Of this, \$25 million was for construction and \$1.45 million was for remediation.

CURRENT STATUS

Construction at Pembroke North is scheduled for completion in the latter part of 2008. Beginning in early 2008, Pembroke North began offering units for sale. The condominiums range in size from 1,350 to 2,700 feet, with one to three bedrooms. All units feature a balcony and some have private terraces. Prices range from \$500,000 to over \$1 million.



Indoor air quality at Pembroke North is ensured through use of no- or low-VOC paints, carpets, and other finishings. Source: Pembroke North

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CASE STUDY

RIVERFRONT NORTH

Bristol Borough, Bucks County, PA

www.bcrda.com/brownfield-projects.html

OVERVIEW

A residential retirement community and the worldwide headquarters of the Lenox factory provide homes and jobs at a 52-acre former industrial site on the Delaware River.

SITE HISTORY

Riverfront North is a 52-acre site located on the Delaware River in Bristol Borough. The site has a long industrial history, including functions as a shipyard and trash transfer station. A portion of the property operated as a zinc manufacturing plant, which ceased operations in 1986. The most recent industrial occupant, the Dial Corporation, manufactured soap products at the site until closing its doors in 2001. Following closure of the zinc plant in 1986, Bristol Borough and the Bucks County Redevelopment Authority (BCRDA) envisioned a sweeping change of uses at the rundown and underutilized waterfront property. The BCRDA ranked the site as the number one priority in an inventory of all brownfield sites in the Enterprise Zone of Bucks County. The idea was to revitalize the area and change the usage from industrial to residential and office. Additionally, the site's waterfront location, within walking distance of Bristol Borough's commercial district, represented an opportunity to attract visitors, create public spaces, and spur revitalization of the downtown.



LEFT - Riverfront North Redevelopment Plan (Source: DePallo Design and Planning); RIGHT - new homes near the waterfront (Source: BCRDA)

REDEVELOPMENT FINANCING

From 1986 to 1988, the BCRDA worked with Bristol Borough to begin acquiring parcels of property at the site through eminent domain. In 1998, BCRDA secured a grant from the Pennsylvania Department of Community and Economic Development (DCED) for an environmental assessment of site conditions. A U.S. Environmental Protection Agency (EPA) brownfields pilot grant served as a match. Bristol Borough also contributed to assessment costs. Following completion of the assessment, BCRDA created a development and marketing plan consistent with the cleanup standard that the property could meet. The work plan was approved by the Pennsylvania Department of Environmental Protection (DEP) through the state's Land Recycling Program. A 13-acre parcel at the northern section of the site was targeted for cleanup to residential standards under Act 2. Due to heavy contamination from previous industrial uses, the balance of the site was planned for cleanup to non-residential standards.

With environmental conditions identified, site remediation commenced. DCED contributed a \$862,567 grant for site remediation. BCRDA secured additional funding for demolition of concrete foundations. Bristol Borough provided a 25 percent match for these grants, as well as \$220,000 for remaining demolition costs. Remediation efforts initially focused on the 13-acre parcel at the northern section of the site designated for cleanup to residential standards. Due to community interest in limiting the impacts of redevelopment on schools, BCRDA issued a request for proposals to develop the property into age-restricted owner-occupied housing. By 2001, Riverbirch developers completed construction on a 56-home retirement community and all homes were sold within one year of groundbreaking.

Also in 2001, the Dial Corporation closed operations at the site. BCRDA purchased the Dial property, which included 9.9 acres at the southern section of the site and all buildings, for \$2 million. To cover purchase costs, BCRDA borrowed \$1.5 million from Bucks County's Community Development Block Grant fund and secured a \$600,000 loan from a private bank. Assessment and remediation of the non-residential section of Riverfront North continued with state funds covering 75 percent of assessment costs, and the EPA supplying the balance. BCRDA obtained a \$720,000 revitalization grant for building demolition. In 2002, Bucks County assisted in obtaining a \$2.5 million Section 108 loan for remediation. In addition, the Borough of Bristol secured a \$2.3 million US Economic Development Administration (EDA) grant for site improvements and infrastructure installation.

In June 2003, Preferred Real Estate purchased from BCRDA a parcel at the southern section of the site with plans to renovate the Dial Soap warehouse and develop three pad sites for office buildings, as well as an additional 120,000 square feet of Class A office space. The Dial building is listed on the National Register of Historic Places; renovation of the historic structure provided \$2.1 million in tax credit funding. In addition, the site's location within the Enterprise Zone of Bucks County qualified it for a \$250,000 Neighborhood Assistance Program Enterprise Zone Tax Credit. The completed project combines the historic building and new construction as a Class A office complex entitled Island View Crossing. In 2006, the Lenox Corporation, manufacturer of china and gifts, announced that it would locate its worldwide headquarters at the rehabilitated former Dial Soap warehouse. The Governor's Action Team provided Lenox with an incentive package, including \$600,000 in opportunity grants, \$250,000 in customized job-training funds, and \$495,000 in job-creation tax credits to secure the deal.

A Pennsylvania Department of Conservation and Natural Resources (DCNR) grant of \$100,000 was awarded to install the Rail Spur Park Walk in the northwestern part of the borough. The Walk will run along Radcliff Street from Mill Street. Preferred has agreed to continue the Rail Spur Park Walk through its property.

CURRENT STATUS

Riverfront North is now home to a thriving community, hundreds of new jobs, and a revitalized waterfront with trails and boat access. The residential neighborhood at Riverfront North is flourishing, with 112 permanent residents and homes valued at twice the original purchase price. In May of 2006, Lenox became the anchor tenant of the Dial Soap building, occupying 126,000 of the 183,000 square foot site for 12 years. The move created and retained more than 470 jobs. The walk and landscaping for the Rail Spur Park Walk is now complete, providing access to the waterfront. Before redevelopment, the 13-acre parcel at the northern part of the site generated no real estate taxes. Today, each of the new housing units provides more than \$4,000 in annual property taxes to the borough, school district, and county for a total exceeding \$250,000.

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CASE STUDY

THE VICTOR BUILDING

City of Camden, Camden County, NJ

www.victorlofts.com

OVERVIEW

Dranoff Properties transformed the old RCA Victor manufacturing building into luxury rental apartments, bringing a new residential component to the revitalized Camden waterfront. The Victor Lofts are the first market-rate housing in Camden in more than 40 years.

SITE HISTORY

Constructed in 1909-1916, the former RCA Victor building was the birthplace of the Victrola. RCA acquired the building when it took over the Victor Talking Machine Company and its Camden manufacturing plant in 1929. The building is sometimes referred to as the Nipper Building because the trademark image of the Victor dog, named Nipper, appears in stained glass on the building tower. The building is one of the most



Once vacant and vandalized, the old Victor building is now home to 341 luxury apartments. *Source: New Jersey Department of Environmental Protection*

important works of the architectural and engineering firm Ballinger and Perrot. As Camden's industrial sector declined, the building was left vacant for 11 years. In 2002, it was placed on the National Register of Historic Places. In 1997, it was listed on Preservation New Jersey's Ten Most Endangered Sites.

In the mid-1990s, the Delaware River Port Authority (DRPA) took ownership of the vacant building. DRPA cleaned up the first floor, replaced broken stained-glass windows, and turned on the tower's light. As the State of New Jersey began investing in the City of Camden, and with the redevelopment of the waterfront underway, Philadelphia-based development firm Dranoff Properties acquired the building.

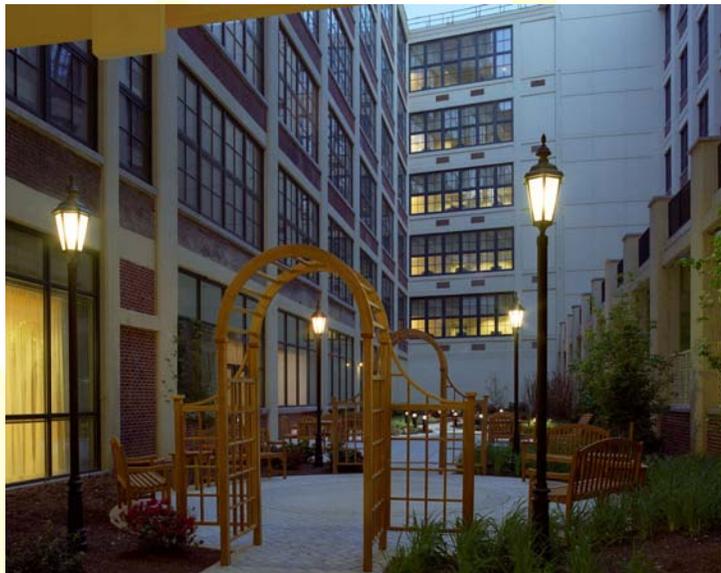
With the involvement of a New Jersey Department of Environmental Protection (NJDEP) case team, which included a case manager, technical coordinator, and geologist, Dranoff was able to obtain approvals for remediation and redevelopment before construction began in 2002.



The famous tower is now home to a three-story fitness center with 360 degree views. *Photo: Don Pearce Photographers, Inc.; Used with permission from Dranoff Properties*



To remove toxic polychlorinated biphenyls, or PCBs, from contaminated concrete floors and walls, NJDEP approved remedies including using surfactants (cleansing agents) and/or scarification (in which contaminated concrete is cut or scraped away). In the basement and areas where other technologies were impracticable, PCBs were entombed in concrete. Deed restrictions on the property ensure that entombed contaminants are managed over time. NJDEP also required that all sources of groundwater contamination be removed from the site; required injection of Regenesi's Hydrogen Release Compound™ to address residual soil and groundwater contamination; mandated installation of an underground barrier wall; and called for the establishment of a Classification Exception Area with ongoing groundwater monitoring. NJDEP also provided letters from the Assistant Commissioner to interested parties such as lenders and insurers to address any concerns that they had regarding the remediation.



The courtyard at Victor Lofts. Photo: Don Pearse Photographers, Inc.; Used with permission from Dranoff Properties

REDEVELOPMENT FINANCING

The majority of the funding for the \$60 million project came from private sources. FleetBoston Financial structured the overall financing and provided the \$30 million first mortgage. Notably, Dranoff was turned down by many other lenders concerned about the project's viability. The Casino Reinvestment Development Authority provided a second mortgage for \$8.7 million at 5.5 percent interest, and the DRPA provided a third mortgage for \$3 million at 7 percent interest. Approximately \$5 million of the Casino Reinvestment Development Authority dollars, which are designated for use in smart growth efforts, went toward environmental clean-up. Dranoff invested approximately \$10.8 million, in part through the sale of historic tax credits. The DRPA provided an additional \$7 million in grants. The Investment Tax Credit was also utilized.

CURRENT STATUS

To convert the structure into luxury rental apartments, Dranoff removed concrete and steel from the center to create a landscaped atrium courtyard. The landmark Nipper tower is now part of a three-story rooftop fitness center with 360-degree views. Victor Lofts, as the building is now called, features a 24-hour concierge, three conference rooms, and a theater. In addition, there are 25,000 square feet of on-site retail on the building's first floor to serve residents and the community. Although use of historic tax credits means the property must be rental housing for five years, the Victor Lofts were designed so that they could be sold as condominiums. Dranoff also has a new condominium project in the works nearby. Radio Lofts, which is expected to break ground in fall 2008, will be the first residential condominium on the Camden Waterfront. Dranoff's efforts in Camden are fundamental to the success of the redevelopment of the waterfront because they bring in residents to patronize stores, restaurants, and other investments, creating 24-hour activity in the area.

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