PREPARING YOUR PLAN FOR SITE REUSE

How Your Community Can Examine Brownfield Revitalization Possibilities

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A Note About Community Engagement, Planning Activities and Analyses

To be allowable under an EPA Brownfields Assessment or Multipurpose grant, the planning activities and analyses described in this document must be developed for the purposes of community outreach, involvement and local decision-making. These communication materials should increase community member understanding of how the property can be safely reused, because the safe reuse of a property will guide site assessment and cleanup decisions.

PREPARING YOUR PLAN FOR SITE REUSE

Your community can begin to revitalize brownfield sites[1] by identifying and examining site reuse possibilities. While continual and robust community engagement[2] surrounding site assessment, cleanup and reuse is likely to lead your community to specific site reuse goals, it is very important that your community also carefully examine the financial feasibility of those goals. Knowing which site reuses are financially feasible will create community confidence in the reuse project, lead to informed assessment and cleanup decisions, and help your community take initial steps to position the brownfield site for reinvestment.

Parts 1 and 2 of this document can help your community examine brownfields revitalization possibilities.

The approaches shared in this document can be used by local communities, governments and nonprofits.

Analyze and Prepare Your Brownfields Site

Design and Calculate Site Reuse Potential

EXAMINING REUSE POSSIBILITIES STARTS WITH UNDERSTANDING SITE PLANNING AND REDEVELOPMENT

Revitalizing a brownfield site starts with understanding how the community's reuse goals align with local economic, infrastructure, social and environmental conditions.

Specific planning activities will help your community determine which reuses are feasible for the site. The reuse influences site assessment and cleanup decisions.

In addition to community engagement, planning activities that focus on brownfields revitalization are eligible under an EPA Brownfields Assessment or Multipurpose Grant. Below are examples of eligible activities.

Planning activities to initiate brownfields revitalization:

- Site Reuse Assessment
- Land Use Assessment
- Market Study
- Infrastructure Evaluation
- Community Health Assessment
- Site Disposition Strategy

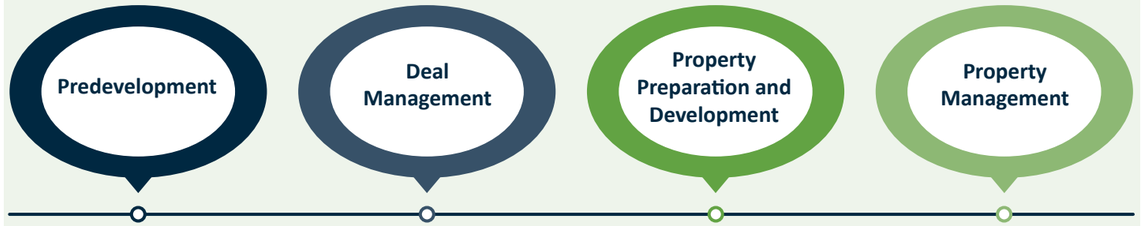
Planning activities to prepare for site reuse:

- Site Reuse Vision
- Revitalization Plan
- Resource Roadmap
- Evaluation of Market Viability

[1] A "brownfield site" means 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 (per CERCLA 101(39)).
[2] For community engagement approaches that emphasize equitable development and brownfields reuse, please visit Groundwork USA. Groundwork USA is an EPA technical assistance provider through 2024.

These planning and preparation activities will help your community identify site reuse goals, project strengths and weaknesses, areas of risk or uncertainties, and financial feasibility. The results of these activities will help your community understand the range of realistic possibilities for safe site reuse and better involve stakeholders in site assessment and cleanup discussions.

While brownfields reuse projects vary greatly in complexity and scope, the redevelopment process can be generally simplified into four components:



Predevelopment activities involve identifying and assessing potential reuses, conducting due diligence, obtaining access to the property to conduct environmental and other assessments of the property, and identifying potential costs and sources of funding.

Deal Management A deal is secured after the predevelopment activities generate enough information for the private or public investor to make their decision whether to take control of the property and continue with the project. Continuing with the project typically includes negotiating contracts, obtaining financing, establishing cleanup plans, acquiring the property, and navigating the local regulatory process.

Property Preparation and Development Preparing and developing the property includes obtaining construction and environmental approvals, coordinating cleanup and construction activities, securing tenants, and completing the redevelopment. The developer or investor also chooses to sell or lease the property.

Property Management If the developer or investor does not sell the property, they will be responsible for several tasks involving property management long-term. These tasks may include managing the financial aspects, commercial operations, tenant issues, community relations, and any long-term environmental issues, such as operation and maintenance of any cleanup systems and components associated with the property.

Early in the redevelopment process, as part of predevelopment activities, an interested public or private investor will analyze the project's redevelopment potential. This evaluation process will identify any significant data gaps and uncertainties that introduce unacceptable risks to the project. The public or private investor will then determine whether the potential financial return or public benefit from the project justifies spending the resources required to resolve these risks, and further refine the evaluation.

PART 1: ANALYZE YOUR BROWNFIELD SITE

Your community can determine the range of safe reuse opportunities and any associated risks through site analysis and preparation activities. These activities include researching, gathering, integrating, and sharing existing data.

Discussing the findings with your community will help stakeholders understand the types of site reuses that are both feasible and safe. It will also empower them to be engaged in making decisions about how to address risks and position the site for reinvestment.

PERFORM A SITE REUSE ASSESSMENT

Performing a reuse assessment for your site will help your community develop a realistic view of the brownfield in terms of redevelopment potential.

The terms "site" and "property" are used interchangeably throughout this document.

A site reuse assessment is an analysis of a property's reuse potential. It ties together key findings from available environmental studies, community engagement, planning and zoning, local market data, infrastructure conditions, opportunities, constraints, and other information relevant to the property. The results will help your community identify where project risks exist and generate options for how to assess, cleanup and otherwise prepare the site for reuse. A site reuse assessment also can be useful when determining the property's market value.

These six planning activities[3] comprise a site reuse assessment:

1. Resource/Document Research

Research the site's past uses and identify any community reuse plans for the area where your site is located. Check your municipality's comprehensive plan and other local documents for project area redevelopment goals. Summarize these documents, highlight goals for the brownfields area, and identify information gaps. This research will provide insights into the area's economic assets and risks, and the strengths and weaknesses of any redevelopment goals.

2. Opportunities and Constraints Analysis

Use your research to conduct an opportunities and constraints analysis, which looks at the site's positive and negative attributes that influence its reuse potential.

Will the reuse goals be limited by site history, zoning, surrounding land use, and ownership? Also consider how local ordinances may affect site layout.

An opportunities and constraints analysis typically unveils a range of site reuse obstacles, potential uncertainties, and other risks. *This is especially true for brownfields and other blighted properties*. However, the opportunities and constraints analysis will help your community identify and resolve information gaps, better define uncertainties, and decide necessary steps for redevelopment. For example, you may want to conduct a Phase I or Phase II environmental site assessment (ESA) or additional site investigation if the analysis raises questions about the environmental condition of the property. You may want to further examine the condition of the site's infrastructure if it appears to be deteriorating or misaligned with reuse goals.

Eight steps comprise a baseline opportunities and constraints analysis. (Examples are shared from a project completed in Lorain County, OH).

a. Neighborhood Context

Describe the site or area, including the property lines and the area conditions surrounding the site (e.g., residential, school, commercial, and industrial areas). Use a map to label and describe the area and note any liabilities or risks (See Example 1.1).

[3] A guide for an entire site reuse assessment can be found in the EPA Revitalization Ready Guide.

b. Access

Site access is key to understanding the redevelopment potential of an area. This step needs to include the site's overall logistical and transportation access points (See Example 1.2).

c. Ownership

Who owns the site you are trying to redevelop? Is it one or more parcels? Figuring out answers to these two questions could help avoid obstacles that may be difficult to overcome later in the process.

Privately-owned property or properties with multiple parcels and multiple owners can be an immediate barrier to redevelopment. You must verify the site layout as well as the percentage of public and/or private parcel ownership (See Example 1.3).

d. Infrastructure and Utilities

What infrastructure services surround the site? Identify the current layout of power, communications, and water infrastructure to help develop an infrastructure plan that aligns with site reuse goals.

e. Land Use and Zoning

Look at the land use and zonng information for the site and the surrounding areas. This information will help your community understand which site reuses can and cannot occur. Find out if the current zoning reflects the community's desired reuse goals for the area. If not, your community may need to discuss changing zoning requirements to accommodate redevelopment (See Example 1.4).

f. Environmental Status

Detail the environmental condition of the property, including the results of previous investigations, what investigations still need to be done, and where institutional or engineering controls are in place. Bringing environmental clarity to the site reuse process is critical to alleviate uncertainties for your local community.

g. Developable Acreage

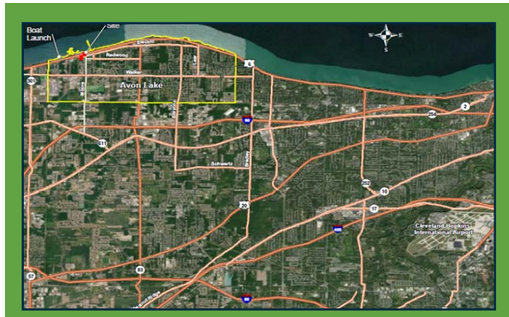
Describe the physical characteristics of the site. Identify how much of the site can be developed, and the condition and usability of any buildings on the site. Depending on reuse goals, you may need to know how much of the site is available for construction of structures and how much will be designated as greenspace, parking, or other site needs (See Example 1.5).

Example 1.1

The site has a history of recreational and commercial use. Surrounding the site to the northwest and west is the city power plant and to the northeast, the city water plant. Adjacent to the power plant on the west side on 14.7 acres are Miller Road Park, a public park, and a lake boat launch, which is heavily utilized by residents and lake boaters. Directly east of the site is a former industrial site and the city water plant. Areas to the south of the site and further east of the former industrial area are primarily residential.

The power plant may be an aesthetic concern for the marketability of the proposed site. There also may be historic environmental issues; however, no known investigations have been done to date.

Example 1.2

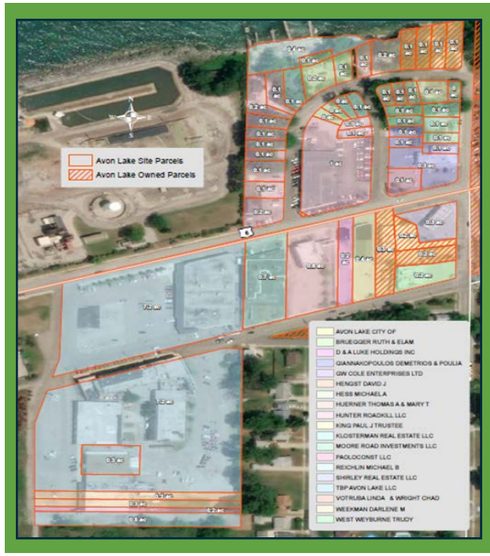


Water Access: The city has exceptional water access to the lake for recreational purposes. There are numerous marinas and opportunities for recreational boating. The city boat launch is located within Miller Road Park, less than a mile to the west of the site.

Air Access: Cleveland-Hopkins International Airport (CLE) is located approximately 15 miles to the east of the site via Route 6/I-90/I-480 East. Additionally, the Lorain County Regional Airport is 20 miles from the lakefront site. It is classified as a reliever for Hopkins and has a 5,000-foot runway.

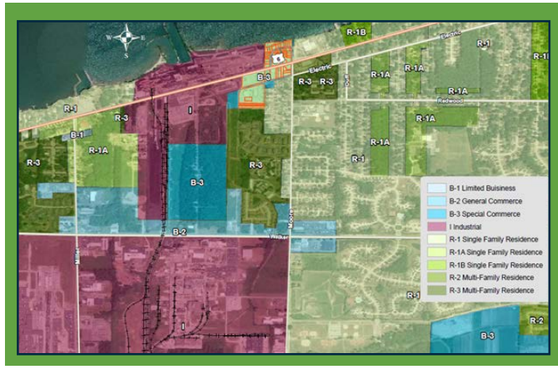
Highway Access: Access to the site is via State Route 6 and Highway 83 (via Moore and Walker Roads). Local access to the site is served by Lake Road (Route 6), Electric Boulevard to the east, Moore Road to the south, and Redwood Boulevard to the east, which connects to Highway 83. Major roadways include I-90, which is located approximately six miles south of the site; I-75, which is located approximately 95 miles west of the site via I-80/I-90 West; and I-71 and I-77, which are located approximately 20 miles and 30 miles, respectively, east of the site via I-80/I-480 East.

Example 1.3



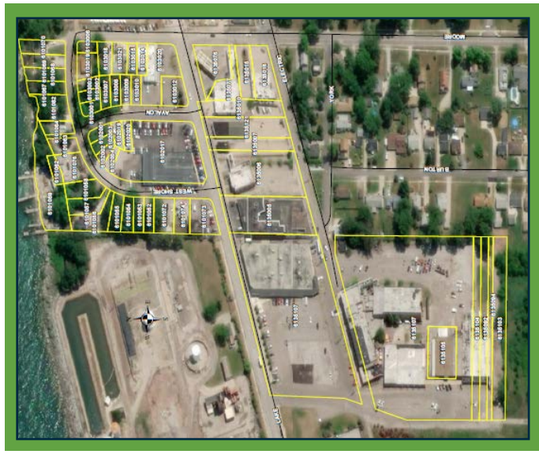
Most of this site is privately owned, with 18 different private owners. The city controls approximately 6.4 percent of the project site, with the remaining 93.6 percent privately owned. That 6.4 percent of the site represents 7 out of 57 parcels. Site assembly and redevelopment will require the cooperation and participation of many private owners.

Example 1.4



Land use in the area surrounding the site is a mix of industrial, commercial, and multi- and single-family housing. The site is currently zoned B-3, "Special Commerce," although land use on the site is currently a mix of commercial and residential.

Example 1.5



Most of the site is under private ownership, with little vacancy. Physical structures are present on a large majority of the parcels. Further investigation is needed to see which structures are vacant and their condition to help determine redevelopment potential.

h. Necessary Property Improvements

Describe what needs to be done to prepare the site for reuse and identify costs associated with site preparation. These improvements may include site clearance, infrastructure repairs, realignment or upgrades, and potential demolition of existing structures. Identifying these needs and major impediments upfront will help you understand what you can and cannot achieve financially.

3. Market Assessment

Conducting a market assessment is an important early step towards understanding the economic viability of potential site reuse options. The results of the market assessment will support your community's financial analysis and help clarify financial risks. Focus on these three essential areas as your community develops the market assessment:

1. Basic socioeconomic data (population; unemployment; median household income; poverty; education; median home value; median rent)
2. Industry sector and cluster data
3. Market data for industrial, office/commercial, retail/restaurant/hotel, and residential space
    a. Overall conditions of the market area
    b. Building demand/vacancy (optimal size/square footage; specifications)
    c. Lease rates and rents
    d. Building costs per square foot

Does your community have a vision for how to reuse the property? Is the vision based in market realities?

As part of the visioning and planning process, your community should understand the types of reuses that can be supported by current local economic and labor market conditions while remaining flexible and responsive to market shifts.

Reach out to local and regional industry experts to learn about market conditions from an on-the-ground perspective. Use the sample questions in Appendix, Part 1: Template 1 to generate the basic information your community needs to develop a financial analysis for site reuse. Adjust questions to fit your specific region, site requirements, and community goals.

4. Environmental Liability and Assessment

Environmental due diligence is an essential step to moving forward with any reuse project. "Environmental liability"[4] is a term used to describe the various obligations and responsibilities that may result from:

- Federal, state, or local environmental statutes;
- The regulations and ordinances based on those statutes; and
- Common law liabilities from negligent behavior or activities. Common law liability also can encompass contractual disputes arising through indemnification agreements, service contracts relating to the cleanup and management of a particular property, or other legal agreements.

Your community will need to assess potential environmental liability for the property under federal (e.g., Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA], Resource Conservation and Recovery Act [RCRA] Subtitles C, D and I) and state cleanup statutes. This is a fact-specific process that requires a thorough understanding of the applicable laws, site conditions, and operating circumstances.

Your community also will need to reasonably estimate cleanup costs. These cost estimates will form the basis of a possible subsidy or deduction to the as-clean value of the property.

The type and extent of contamination may limit property reuse options, as well as the property value. Contamination may limit reuse to industrial/commercial, recreational/open space, or no reuse at all.

At some properties, the cost to achieve cleanup standards suitable for residential, educational, or hospitality reuse is financially impractical.

At a minimum, it is important to conduct a Phase I Environmental Site Assessment (ESA)[5] of the property to understand potential environmental conditions of the property and any associated environmental liability. Complying with the federal "all appropriate inquiries" (AAI) regulation also will assist in establishing a defense to liability for any contamination found at the site. Ensure that the AAI or Phase I ESA is conducted or overseen by an environmental professional. Your community also may need a Phase II ESA to help you better understand any recognized environmental condition(s) (RECs) found in the Phase I ESA.

PHASE I ESA
▶ Includes a review of government and historical records, a visual site inspection, and interviews with those knowledgeable about the site to identify whether the site has any RECs. ▶ Should be performed by an environmental professional in accordance with federal AAI requirements and ASTM standard E1527-13. ▶ May require additional investigation (Phase II ESA) and possibly cleanup if releases of hazardous substances are identified.
▶ Includes sampling of site soils, groundwater, surface water, and/or vapor, and analysis of samples to evaluate RECs identified during the Phase I ESA. ▶ Should be conducted by an environmental consultant. ▶ May require the assistance of legal counsel and environmental consultant to move into additional investigation and cleanup if the municipality owns the site or will be taking ownership of the site.
▶ Often conducted as part of the site redevelopment. ▶ Must be conducted in accordance with state and/or federal regulations.

[4] See https://www.epa.gov/enforcement/addressing-liability-concerns-support-cleanup-and-reuse-contaminated-lands for more information. A general introduction to environmental liability also can be found in the EPA Revitalization-Ready Guide.

[5] Additional information regarding Phase I and Phase II ESAs can be found in the EPA Assessing Brownfield Sites fact sheet.

5. *Infrastructure Plan*

Your community will need to develop an infrastructure plan for the site to ensure the reuse is accessible, productive and safe. Consider the conditions and capacity of roads, electrical, gas and water lines, and broadband. Identify infrastructure improvements needed to bring the site up to standards and within code and include other site preparation activities that your community is willing to implement to support the reuse.

An infrastructure plan usually has several steps, including site clearing, surveying, design, and investigation (including geotechnical site investigation). This planning process can be challenging, and often is an area where communities require technical expertise.

Discuss with your community how the plan can be implemented - including what can be covered locally versus what requires outside investment - and any other cost factors.

6. *Resource Tracking*

Develop a plan for how your community will track the resources going into the project *before reuse costs accrue*. Many communities use a "resource roadmap" (see Appendix, Part 1: Template 2) to break down a large reuse project into several smaller components that require discrete sources of funding.

As you break down the larger project into several smaller components, you will notice that the specific projects likely include site clearance and ground cleanup, sidewalk or utility improvements, stormwater management, continued community engagement, or relocation assistance. For each project component, estimate its cost, identify specific funding sources, and keep track of any associated permit application deadlines and any special funding requirements.

Keep the resource roadmap up to date to help your community focus on current revitalization priorities. It will serve as a guide to project leveraging by matching individual project components to appropriate funding and financing sources. The resource roadmap outlines a strategy for your community to identify and tap into available funding from federal, state, philanthropic, private sector, and local financing sources.

Be ready to explain to community members how available sources of capital, incentives, and financial benefits can be combined to enable reuse(s) that are economically viable despite financing gaps. Sources, incentives, and financial benefits can include:

- Tax-increment financing (TIF), or TIF-equivalent
- Tax credits
- Tax exemptions
- Enterprise Zones and Quality Jobs Programs
- Federal Opportunity Zones or similar state tax programs
- New market tax credits
- Permit/impact fee waivers and rent abatement
- Sales tax revenue sharing
- Job credits

Your community will need to keep track of the project risks and information gaps you find when completing the site reuse assessment. Even if you find many risks and information gaps, your community will be able to address some of them using the conceptual use plan and financial analysis described in Part 2.

Any risks and information gaps you cannot address will also affect the project's financial feasibility. It is important that your community has a clear understanding of how risks and information gaps could affect the viability of site reuse.

PART 2: DESIGN AND CALCULATE SITE REUSE POTENTIAL

Using the project risks and information gaps you identified in Part 1, your community can now create site conceptual use designs and calculate corresponding financial feasibility scenarios. These key steps will help your community begin to position a site for reinvestment.

A. EVALUATE FINANCIAL RISK

Financial risk is present in all reuse projects. It cannot be avoided entirely. However, your community can clarify which project components include risk and how to mitigate the risk.

Evaluate your project's financial risk from the perspectives of both a public (e.g., the municipality) and a private (e.g., a potential investor) entity. For example:

- A municipality's goal is to facilitate the property's redevelopment. Its primary goal is to limit the amount of municipal funds that are needed and ensure those funds are used to maximize public benefits.
- A private developer or investor's goal is to earn a profit. Its primary goal is to invest its funds into a project that produces a reasonable rate of return.

B. UNDERSTAND FINANCIAL FEASIBILITY

Before your community can determine whether a reuse project is financially feasible, you need to understand the property's intended reuse(s) and create best-use scenario(s). The best-use scenario(s) will form the basis for determining potential costs and revenues.

Best-use scenarios must be based on your community goals, as well as the site conditions (i.e., environmental, infrastructure, ownership) and the overall market potential for the site.

1. *Conceptual Use Plans*

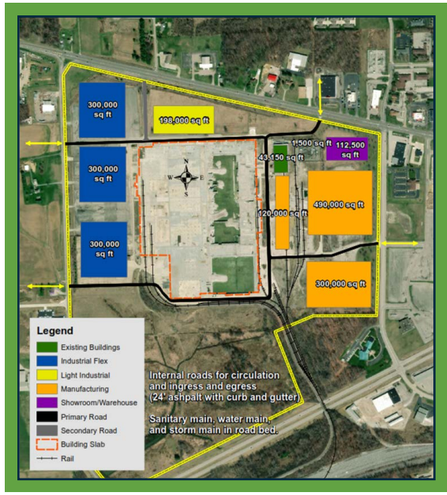
A conceptual use plans is the visual representation of a best-use scenario for site reuse. Typically, a community will create a conceptual use plan that illustrates a best-use scenario based on the site's maximum potential redevelopment yield and the potential value of the property. This plan is an essential part of the initial planning and budgeting phase.

A conceptual use plan is a starting point to begin discussions based on the desired reuse goals. It does not set in stone the final reuse program for the site. As shown in Examples 2.1 and 2.2, a conceptual use plan can range from basic to extremely detailed. Both approaches serve the same purpose of illustrating a best-use scenario that is the basis of a financial analysis for the site.

The design and layout of a conceptual use plan should reflect the environmental and other findings from your site analysis and preparation work in Part 1. Your community may want to find an engineering expert or other professionals to map out the infrastructure and other site-specific features as needed.

Your community may decide to create more than one conceptual use plan to reflect different reuse scenarios and determine which scenarios are financially feasible.

Example 2.1



A basic conceptual use plan for the redevelopment of an industrial complex. Even with minimal detail, this example not only shows the building layout but also demonstrates the access points for optimal traffic flow throughout the complex.

Example 2.2

	Total Building Area	Estimated Jobs
BUILDING 1	± 459,680 sf	310
BUILDING 2	± 559,520 sf	378
BUILDING 3	± 439,920 sf	297
BUILDING 4	± 216,384 sf	146
BUILDING 5	± 464,360 sf	313
BUILDING 6	± 47,460 sf	32

TOTAL BUILDING AREA	**± 2.1MM SF**
CAPITAL INVESTMENT	**± $185,000,000**
ESTIMATED JOBS	**± 1,476**

A detailed conceptual use plan for a multi-phased commercial development. This example shows the layout as well as the phased approach for buildout, to include square footage, specific usage and landscape design. (Courtesy of NorthPoint Development.)

2. Financial Analysis

Your community can perform a basic financial analysis for reuse based on the best-use scenario(s) and conceptual use plan(s) you developed.

The financial analysis will help your community explore the overall viability of the reuse project. The analysis will reflect the potential return on investment, including any funding gaps that may require municipal involvement. Your community can use the analysis to evaluate whether the reuse project goals are realistic and likely to attract private investment, as well as weigh the financial risks or benefits of municipal involvement.

Once you have mapped potential property reuses for the site, construct a sources and uses chart, and run a pro forma analysis for each conceptual use plan. Include an estimate of potential costs to acquire and reuse the property and identify the potential sources of funds and revenue to implement the project.

A sources and uses chart and a pro forma analysis are based on how the community intends to reuse the site. The site reuse is used to determine potential costs and revenues.

The sources and uses chart and pro forma analysis will help your community identify:

- Potential expenses and sources of funding;
- Potential financial viability of different redevelopment scenarios;
- Relative effect of various cost and revenue assumptions on profitability; and
- Subsidies or incentives needed to attract investment.

*Sources and uses chart: A tool to identify and balance funding sources and needs (*see Appendix, Part 2: Template 1).

A sources and uses chart provides a mechanism to identify and balance potential expenses, sources of funding, and funding needs. Your community can use this chart to evaluate public (municipal-led) as well as privately-led reuse projects.

Pro forma analysis: A tool used to predict financial viability of reuse (see Appendix, Part 2: Template 2).

Your pro forma analysis needs to be well-structured and contain all project elements pertaining to revenue and cost. Ensure your expected cost and revenue assumptions are accurate before using them in the analysis.

A pro forma analysis is a set of calculations that results in the amount of expected financial return from the proposed reuse. It is the basic "go/no-go" analysis that developers use to decide whether to move forward with a project.

Using a pro forma analysis, your community can prepare a financial estimate for the reuse project that is based on expected revenues and costs associated with the best-use scenario. Adding various cost and revenue assumptions to the pro forma analysis based on different uses and site configurations will enable your community to compare scenarios.

A set of assumptions—based on the overall revenue and costs for the project—is central to the pro forma analysis. These assumptions are derived from the market, environmental, and infrastructure information as discussed in Part 1.

Basic cost assumptions are:

- Land cost – acquisition costs of purchasing the property if needed
- Hard costs – infrastructure/property redevelopment/site preparation costs (based on findings of the infrastructure assessment) and building construction costs (costs associated with best-use scenarios for buildings and regional construction costs, as determined through market assessment)
- Soft costs – site preparation costs that are not included in hard costs, such as legal fees, permit fees, and architectural drawings
- Capital costs – interest and fees assumed through debt
- Environmental costs

- Investigation, environmental assessment, and cleanup
- Legal or consulting fees associated with investigation and cleanup
- Maintenance of institutional or engineering controls
- Environmental liability insurance

Basic revenue assumptions are:

- Sale of a property that is shovel-ready (as whole or divided parcels)
- Sale of an individual building or units within a building (sales price determined by the best-use scenarios and regional market)
- Rent for leased buildings or units within a building (lease rates determined by the best-use scenarios and regional market)
- Sale or lease of pad sites (as driven by the regional market)
- Tax revenue
- Other revenue from using the site for advertising (i.e., signage), renewable energy production, or cell towers

Once you complete the pro forma analysis, share and discuss the results with your community.

What does the analysis mean for your community site reuse goals?

How much public and private investment is needed to meet your goals?

- If one or more of the best-use scenarios appear financially feasible, your community may decide to move forward with site assessment, cleanup and reuse activities. You may decide to create a brownfields investment package to help your community attract private investment.
- If a best-use scenario is not financially feasible, your community's reuse project is unlikely to attract private investment. It may be difficult to secure local leadership support and bring sufficient public resources into the project as well. Review your pro forma assumptions and inputs in Part 2. How can you adjust the reuse program for the site? Discuss acceptable options with your community.

APPENDIX

PART 1: TEMPLATE 1 – MARKET ASSESSMENT QUESTIONS

These questions will help your community produce a basic market assessment that provides enough information to determine the best potential economic use for the property. Use your local and regional real estate and development resources (e.g., developer or real estate professionals/experts in your area; real estate "sell sheets" for properties; real estate correspondence or monthly summary documents on the market and trends).

Key Questions:

1. What are the market opportunities and challenges for the area?
2. What type of building is in greatest demand, and in what configurations?
   - Warehouse: i.e., size range, ceiling height, - speculative (spec) and/or build to suit
   - Flex[1]/Research and Development (R&D)[2]: i.e., size range, ceiling height - spec and/or built to suit
   - Manufacturing: i.e., size range, ceiling height - spec and/or built to suit
   - Commercial/office (specific types dependent on region): i.e., size range
   - Other (if any, such as hotel, restaurant, retail)
3. Are triple net rents achievable for each type?
   - Warehouse
   - Flex/R&D
   - Manufacturing
   - Commercial/office (specific types dependent on region)
   - Other (if any, such as hotel, restaurant, retails)
4. What is the average cost per square foot (or range of cost) to build each type?
   - Warehouse
   - Flex/R&D
   - Manufacturing
   - Commercial/office (specific types dependent on region)
   - Other (if any, such as hotel, restaurant, retails)
5. What industries or companies are generating interest in your area at present?
   - Outlook for industry/cluster drivers of your region
   - Other
6. In terms of vacancies/availability, what is the demand for space to accommodate each type?
7. What is the potential user or industry—and potential triple net rent—for any existing buildings on site?
8. Other questions relevant to specific site.

Your project may have one or several distinct areas requiring data. Use the pro forma to show separate development areas. You can add or subtract as needed.

"Triple net" refers to a lease agreement on a property where the lessee agrees to pay all the expenses of the property, including property taxes, building insurance, and maintenance, in addition to the rent and utilities.

[1] "Flex" is a flexible building design that can accommodate technology and service tenants. Typically, flex is an industrial warehouse with a minimum 25 percent office space that can be divided into warehouse, distribution, or specific industrial (such as R&D) uses.
[2] Research & Development is a subcategory of flex and requires cleaner facilities than typical manufacturing and warehouse, as well as specific space focusing more on laboratory and high tech manufacturing, with low loading requirements.

PART 1: TEMPLATE 2 – RESOURCE ROADMAP (SAMPLE)

A resource roadmap outlines a site reuse strategy that is broken down into several smaller projects. Your community can use it to identify available funding sources for individual project components and prioritize the resources to pursue. Include resources from federal, state, philanthropic, and private sector funds, as well as local funding (such as grants) and financing sources (such as bonds, loans, special districts, funding matches, or tax incentives).

Below is a sample resource roadmap. For a real-life example, please visit the Resource Roadmap for the City of Glenwood Springs, Colorado.

TOWN HALL

CITY OF XYZVILLE

AGENDA FOR SUSTAINABLE COMMUNITY REVITALIZATION

The City of XYZVille, XY is a community of xy,xyz people that seeks to revitalize closed factories and blighted sections of downtown with new revitalization. XYZVille' s municipal development authority has acquired the vacant factory complex and its 27 acres on the riverfront on the south end of the central business district along Main Street, a site that has been vacant, polluted and blighted for more than 25 years. Using U.S. EPA Brownfields Assessment grant funding for reuse planning, the community has created a vision for a vibrant, mixed use riverfront development that includes a local healthy foods market, commercial offices to serve the growing downtown, mixed-income housing to replace the 99 affordable units at the severely deteriorated public housing complex, and small retail shops for citizens and tourists. XYZVille seeks to upgrade Main Street along the new development area into a complete street to improve walkability and connect the project to the central downtown, and to establish new riverfront public park, recreational, and trail facilities along this beautiful natural area. To put this vision into action, XYZVille seeks support and resources from local investors, state and federal agencies, philanthropic foundations, and the private sector, including the following:

Project & Key Components	Estimated Costs	Funding & Support Needed	Match & Leveraging	Key Next Steps
Demolition of obsolete factory buildings and structures	$400,000 asbestos abatement $200,000 cleanup of petroleum spill area $600,000 buildings demolition $6-8 million for restoration and reuse of historic brick mill building	✓ $1 million EPA Brownfields Cleanup Revolving Loan Fund for asbestos and petroleum cleanup ✓ HUD CDBG and Section 108 Loans for site prep and demolition, and mill restoration ✓ Federal Home Loan Bank, Community Investment Program funding for mill restoration	✓ XYZVille Tax Increment Finance proceeds ✓ State of XY Brownfields Cleanup Fund grants or loans ✓ Private developer contribution	✓ Confirm available level of TIF proceeds ✓ Complete brownfields assessment and remedial planning using remaining EPA Assessment funding ✓ Meet with EPA Regional Brownfields Office to discuss RLF opportunities. Deadline for RLF application December 2016 ✓ Meet with state HUD office to discuss Section 108 loan ✓ Find member bank in XYZVille willing to use FHLB Community Investment Program
			✓ Historic Tax Restoration Credits (25% of restoration costs)	✓ Work with XY State Historic Preservation Office to establish plan to use historic tax credits on mill restoration
Stormwater management with green infrastructure	$2 million	✓ Clean Water SRF Green Reserve loans, coupled with principle forgiveness ✓ HUD Section 108 proceeds ✓ Economic Development Administration, Public Works Grant	✓ XYZVille Stormwater Fee proceeds	✓ Work with State of XY State DEP Office of Water to enter stormwater project on State Clean Water Intended Use Plan ✓ Apply for summer 2016 Green Reserve grant
Mixed-Use Development Center Construction	$75-90 million	✓ USDA Business & Industry Guaranteed Loan ✓ National Development Council public-private partnership bonding tool ✓ HUD Section 108 loan proceeds ✓ New Market Tax Credit	✓ Private sector equity and debt investment ✓ State of XY economic development grant and loan program	✓ Meet with USDA Rural Development office located in State XY ✓ Contact regional representative for National Development Council ✓ Contact community development entity with allocation of New Market Tax Credits, and explore potential NMTC expert to retain as counsel
Complete Street Improvement on Main Street	$850,000 for design, engineering, permitting and construction management $7 million for construction	✓ State XY & MPO for Transportation Alternatives Program grant for design and engineering ✓ CMAQ grant for design and engineering ✓ Rural TIGER grant for construction	✓ State XY Surface Transportation Priority grant as match to TIGER for construction	✓ Work with MPO to secure placement of Main Street project as priority in Transportation Improvement Plan ✓ Meet with State DOT district engineering office to build support ✓ Collaborate with state elected representatives and Office of the Governor to build support ✓ Invite XYZ's congressional delegation to site visit to review design plans
Healthy Foods Market	$550,000 for establishment of local food cooperative as anchor tenant of healthy foods market	✓ EPA Local Foods, Local Places technical assistance award to support planning to tie foods market to broader community revitalization ✓ $200,000 USDA Community Foods grant	✓ $75,000 Kresge Foundation Local Foods Grants ✓ $200,000 match from City of XYZ	✓ Meet with USDA in state field office ✓ Invite Community Foundation, Funders Network, and Kresge supporters to be part of Local Foods, Local Places charrette

		✓ $75,000 USDA Farmers Market Promotion Program grant ✓ $50,000 grant from XYZ Community Foundation, matched with $50,000 Partners for Places grant from The Funders Network for Smart Growth & Livable Communities, for creation of sustainability plan for market		
Affordable Housing Center	$28 million for affordable housing component of overall $75 million project with mixed-income housing at mixed-use development	✓ $2 million HUD Choice Neighborhoods Planning & Action Grant ✓ HUD Choice Neighborhoods $25 million implementation grant ✓ Low Income Housing Tax Credit allocation from State of XY housing agency	✓ Private sector developer equity and debt	✓ Build local coalition to pursue HUD Choice Neighborhood support ✓ Issue Request for Statements of Interest for private sector development partner
Riverfront Park & Trail	$2-3 million in river shoreline restoration $6 million park and recreational upgrade $1 million pedestrian/bike train	✓ Corps of Engineers Section 22 Planning Assistance to States, and Section 206 Ecosystem Restoration grants for planning & construction of shoreline restoration and portions of recreational improvements ✓ Land and Water Conservation Fund grants, via State XY parks agency ✓ NPS, Outdoor Legacy Recreation Grant ✓ USDA Community Facilities grants and loans	✓ Local TIF proceeds ✓ County parks impact fee proceeds	✓ Convene with Corps District Office of Planning & Programs ✓ Work with congressional delegation to build Corps support at District and Division levels, and in Corps Work Plan & budgeting process ✓ Work with County to confirm level of available impact fee proceeds for grant matches

PART 2: TEMPLATE 1 – SOURCES AND USES CHART

SAMPLE
SOURCES AND USES OF FUNDS

USES OF FUNDS		
Acquisition		$0
Transaction Costs		$0
Total Acquisition Costs		$0
Hard Costs		
Construction		$0
General Conditions		$0
Developer fee		$0
Demolition/Property Improvement		$0
Remediation		$0
Hard Cost Contingency	10%	$0
Total Building Loan Hard Cost		$0
Project's Soft Costs		
Borrower's A/E Fee		$0
Bank Engineer		$0
Developer Owner's Representative		$0
Bank Legal		$0
Developer Legal		$0
Accounting		$0
Environmental Phase I		$0
Environmental Phase II and III		$0
Other Environmental Professional Fees		$0
Survey		$0
Title Insurance		$0
Appraisal		$0
Bank Commitment Fee		$0
Construction Interest		$0
Insurance		$0
Real Estate Taxes		$0
Building Permits		$0
Other		$0
Letter of Credit/Bond Fee		$0
Soft Cost Contingency	10%	$0
Other		$0
Total Building Loan Soft Costs		$0
Operating and Lease-up Reserve		$0
TOTAL USES OF FUNDS		$0

SOURCES OF FUNDS	
Construction Sources of Funds	
1st Construction Loan	$0
2nd Construction Loan	$0
Developer Equity	$0
Equity from Federal Tax Credits	$0
Equity from State Tax Credits	$0
Grant Source #1	$0
Grant Source #2	$0
Other	$0
Deferred Developer Fee	$0
TOTAL CONSTRUCTION SOURCES	$0
Permanent Sources of Funds	
Ist Permanent Mortgage	$0
2nd Permanent Mortgage	$0
Developer Equity	$0
Equity from Federal Tax Credits	$0
Equity from State Tax Credits	$0
Grant Source #1	$0
Grant Source #2	$0
Other	$0
Deferred Developer Fee	$0
TOTAL PERMANENT SOURCES	$0

A Step-by-Step Summary for Preparing a Sources and Uses Chart

A sources and uses chart is a worksheet that shows where all the funding for a project comes from and where all those funds will be used in the redevelopment.

The main requirement of a sources and uses chart is that the total sources of funds must match the total uses of funds. When they do not match, the chart will show where funding/financing gaps or surplus funds exist.

A sources and uses chart is meant to show when and where funds will flow through a project. It is designed to be forward-looking so that when the community, municipal leaders or outside investors examine the chart, they will quickly understand a reuse project's scope and complexity.

Start by determining the project costs ("uses") and the timing associated with those costs.[1] Once you understand the costs, determine what funding sources are likely to be available.

Uses of Funds

Break down your reuse project into three main uses:

1. **Property acquisition costs:** The total acquisition cost is the sum of the amount to acquire the property and any transactional costs associated with the acquisition. Transactional costs can include due diligence (assessments or analysis of the property, including conducting AAI), architectural fees, bank fees, appraisal fees, regulatory approval fees, broker fees, and legal fees. These costs can occur while deciding to purchase a property and/or after you decide to move forward with the transaction.
2. **Hard costs:** These costs are directly related to the project's cleanup and subsequent physical construction. Hard costs cover the material and labor that go into property redevelopment. Examples of hard costs include demolition, site remediation and related sampling, redevelopment construction, and the developer fee associated with the project. It is common practice to include the average industry standard of 10 percent of the total hard costs as a contingency within the sources and uses chart. The contingency will cover excess costs for specific line items if needed (i.e., sometimes due to unanticipated contamination, a change in plans, or price increase).
3. **Soft costs:** These are the costs that are not considered direct physical construction costs. They are typically associated with non-tangible items, such as institutional controls, redevelopment design, fees, interest (or debt service), taxes, and insurance. Soft costs for all standard development projects include remedy design, site plans, engineering, legal tasks, soil testing, architectural plans, and marketing plans. These costs can be a significant part of the project's budget. A rule of thumb is that the total amount of soft costs is usually estimated at 20 percent of the total amount of hard costs.

The developer fee is the fee a developer receives for seeing the project through to completion. This fee should be funded last so it doesn't compete with other project resources.

Traditionally, a developer fee is approximately 10 percent of total project cost. Be wary if the developer fee exceeds 10 percent, or if the fee is very low/not included. Without an incentive, the project may lack the leadership needed to be completed. Additional transaction costs may accrue as time is needlessly consumed.

It is common practice to include a soft cost contingency in the sources and uses chart. Like the hard costs contingency, the soft cost contingency will cover excess costs for specific line items, if needed (i.e., sometimes due to a change in plans, or price increase).

Include any additional costs in the "uses" column, such as operating and lease-up reserves, to determine the total uses of funds.

[1] If you already have funding set aside for the redevelopment, you can enter those sources before having a complete picture of the project costs.

Sources of Funds

The chart's "sources" column demonstrates the project's capital stack. It includes a list of funds, and who is providing those funds ("capital providers"). The sources are likely to include public, private, and other resources. In the template above, the sources are traditional debt financing (including subordinate debt), tax credits, grants, and individual equity.

Sources also may include funds received through operations. For example, a portion of a property might yield rent revenue while another portion of the property undergoes improvements. The rental income is an example of a source of funds outside the capital stack. Other sources might include grants, donations, or retained equity; these funds may not show up on a traditional capital stack.

When the "sources" column includes a deferred developer's fee, this suggests the developer is allowing for its fee to be used as capital. Keep in mind, however, that a deferred developer fee is not hard equity; it is more like an in-kind source, such as "sweat equity." It is debatable whether a deferred developer's fee can be considered a valid form of equity investment, and therefore, you should not overly rely on this source of equity.

The "sources" column also should reflect the timing of the overall project. You will need some cash at closing, while you may escrow other funds for later use. Cash flow is often used to pay future expenses. You may want to break down the sources of funds into "Construction Sources of Funds" and "Permanent Sources of Funds" as these funds will be used at different points during the project's timeline.

It is important for planning purposes to understand the timing/availability of debt sources in the short and long term. Traditional lenders, for example, often release loans in installments as a project progresses instead of the entire loan amount at the project's beginning.

After creating a sources and uses chart, check to see if the total cost in "uses" column is higher than the total amount in the "sources" column. If so, add a new category: "Additional Equity Required." However, if the total funding in the "sources" column is higher than the total costs in the "uses" column, add a new category: "Cash Flow Distribution." Eventually, both sides will need to be equal for the project to be completed.

PART 2: TEMPLATE 2 – PRO FORMA ANALYSIS

Real Estate Pro Forma for Redevelopment Project								
Directions:	**Enter information in cells outlined in red, as appropriate**							
PROJECT COSTS							*Cell*	
Purchase Price						**$0**	***A1***	Acquisition Price, may be based on appraised value minus remediation
Remedial Action Costs For Project			**Remedial Action (Area 1)**			**$0**	***B1***	Cost of implementing remedial action (e.g., soil or water cleanup)
			Remedial Action (Area 2)			**$0**	***B2***	Cost of implementing remedial action (e.g., soil or water cleanup)
			Total for Remedial Action			**$0**	***B3***	Total Remedial Action Cost
Hard Costs								
Development Segment 1								
New Construction								
Retail	Square feet	0	Cost/sf	$60	$0		***C1***	Construction cost per sf for retail
Industrial	Square feet	0	Cost/sf	$50	$0		***C2***	Construction cost per sf for industrial
Office	Square feet	0	Cost/sf	$100	$0		***C3***	Construction cost per sf for office
Residential	Square feet	0	Cost/sf	$60	$0		***C4***	Construction cost per sf for residential
Parking	Parking Spots	0	Cost/unit	$1,200	$0		***C5***	Construction cost for parking per space
	Total Hard Costs (Development Segment 1)					**$0**	***C6***	Total Construction Cost Area 1
Development Segment 2								
Existing Building								
Asbestos Removal	abatement of materials in building - lump sum			$0	$0		***D1***	Lump sum cost of asbestos removal
Demolition	Square feet	0	Cost/sf	$25	$0		***D2***	Demolition cost per sf
Renovation Costs								
Retail	Square feet	0	Cost/sf	$50	$0		***D3***	Renovation cost per sf of retail
Industrial	Square feet	0	Cost/sf	$30	$0		***D4***	Renovation cost per sf of industrial
Office	Square feet	0	Cost/sf	$80	$0		***D5***	Renovation cost per sf of office
Residential	Square feet	0	Cost/sf	$50	$0		***D6***	Renovation cost per sf of residential
	Total Hard Costs (Development Segment 2)					**$0**	***D7***	Total Rehab and Construction Cost Area 2
	Total residential units @		2000	sf		**0**	***D8***	
Total Hard Costs for Development Segments 1 and 2						**$0**	***D9***	Total Construction Costs Areas 1 + 2
Total Hard Costs for Development Segments 1 and 2 + Remedial Action Costs						**$0**	***E1***	Total Construction Costs Areas 1 + 2 plus remedial action costs
Soft Costs	% of hard costs and remediation costs			20%		**$0**	***F1***	Softs costs +/- 20% of construction costs
CARRY COSTS								
					Carrying cost			Interest costs on land acquisition for two years
	Purchase Price		$0		$0			
	Months		24					
	Rate		8.50%					
	Soft + Hard Costs + Remediation		$0		$0			Interest Costs on construction, rehab and remediation
	Months		24					(B4+E1+F1 X % per month X # of months
	Rate		8.50%					
				Total	**$0**			
TOTAL DEVELOPMENT COSTS						**$0**	***H1***	Total of all development costs
PROJECT VALUE								
Net Operating Income				Rent/sf	Total Income			
	Industrial Sq.Feet	0		$5.50	$0		***J1***	Total industrial sf X estimated net lease rate per year
	Office Sq Feet	0		$18.00	$0		***J2***	Total office sf X estimated net lease rate per year
	Retail Use Sq Feet	0		$18.00	$0		***J3***	Total retail sf X estimated net lease rate per year
	Total units	0			$0.00		***J4***	Total residential units X estimated annual rent
	Net Operating Income				**$0**		***J5***	Total of annual net rental income
	Less Vacancy	5%			$0			
	Less Long Term Remediation Operating Expenses				$0		***J6***	Post remedial action operation, monitoring, and maintenance
	Less Environmental Insurance				$0		***J7***	Environmental insurance premium
	Adjusted Net Operating Income				**$0**		***J8***	Net Operating cincome minus vacancy %, minus cost of ongoing remdiation, minus cost of environmental insurance
Capitalization Rate					**8.00%**			
PROJECT VALUE COMPLETED AND OCCUPIED								
						$0	***K1***	Adjusted NOI divided be capitalization rate reflecting yield and risk
PROFIT						**$0**	***L1***	Project completed value minus total of all development costs
Cash on Cash Return								
						0.0%		Profit as % of Total Development Cost

A pro forma analysis will help your community estimate the total costs for the site reuse project. It is designed to help you to see the project's bottom line. It also helps you analyze the financial viability of the project by determining the end value of the reuse. You can adjust the pro forma inputs so you can compare different reuse scenarios and site configurations. The Pro Forma Template is available for download from the EPA Land Revitalization Website.

Step-by-Step Approach to Preparing the Pro Forma

Cell	Instructions
A1	Insert **purchase price**. This can be the offered sales price or a negotiated amount, or it may be based on an appraisal. It also is possible that the underlying land title will not change; there may be no purchase price, and this cell will be zero. In addition, liens or defaults may exist which need to be remedied.
B1 – B3	Insert **environmental cleanup action costs**. These costs already may be defined as part of the cleanup plan, or they may need to be estimated. *Cell B4 will add these three lines together.*
C1 – C5	*Complete if new construction is involved in the project.* Estimate the **square feet to be constructed** and the **cost per square foot, by building type**. Delete/leave blank unused building categories. Complete the market assessment and sources and uses template detailing costs to support the various cost elements in the pro forma. Costs can include site clearing and preparation, foundation work, structural and exterior work, mechanicals, and interior finishing. Ongoing maintenance and upfront infrastructure costs may require funding prior to construction or during the development phase before revenues are available to cover them (i.e., fencing and mowing).
D1 – D2	*Complete if existing buildings are located on the property.* Insert **estimated demolition costs**. Include asbestos removal and other building preparation required. Costs can include demolition or partial demolition with renovations. These projects generally have more unknown costs, which adds risk.
D3 – D6	Insert **renovation costs per square foot by building type**.
E1	Totals the hard costs for all building types.
F1	Soft costs are calculated as a **percentage of hard costs**, usually at 20 percent. Soft costs for all standard development projects include site plans, engineering, legal tasks, soil testing, architectural plans, and marketing plans. At this point in your pro forma, you will not need a detailed breakdown among disciplines. Though you may have already incurred some of these soft costs and cleanup action costs in your project, keeping an estimated 20 percent for soft costs overall in the pro forma is still reasonable. Additional due diligence is required on redevelopment projects, so there may be more investigative costs such as reuse analysis, negotiating access rights, and project visioning.
Carrying costs	This is calculated **interest on cash** invested or borrowed for redevelopment of the property. While interest on the initial purchase is calculated from the date the property transfers, interest on redevelopment is calculated based on an average over time. The interest rate generally should reflect current rates. Adjust as needed based on the overall risk of the project.
H1	This is the total of the purchase price, cleanup action, hard and soft construction costs, and carrying costs. This cell should represent the total anticipated cost of redevelopment. Use the anticipated cost of redevelopment to match your sources of financing for each phase. Devise a plan for which sources will cover the earlier/riskier project costs, which phases require different levels of financing, and how much cash you will need to promote redevelopment.
J1-J4	Insert inputs to determine project end value. There are generally two approaches for determining end value: 1. Use the property's appraised value based on market comparisons or the property's potential reuse. Site-specific brownfield conditions, however, are likely to decrease the accuracy of an appraised value. 2. Determine the property's anticipated revenue stream, such as expected rental income.
J5	Net operating income is derived by subtracting operating expenses from rental rates. Use industry standards by building type to obtain operating expenses and management fees on a per square foot basis. Use local market conditions and types of tenants anticipated to figure vacancy rates by building type.
J8	Include amounts for longer-term cleanup action expenses, ongoing special cleanup action and maintenance costs as necessary, reserves and/or environmental insurance. This will calculate an adjusted net operating income.
Cap rate	The capitalization rate is used to calculate a rough project valuation. The rate used is based on the market and risk involved. Consult with industry professionals to **determine the cap rate appropriate for your project**.
K1	Calculates the project's estimated completed value less development costs and a cash return on investment.

Your project may have one or several distinct areas requiring data. Use the pro forma to show separate development areas. You can add or subtract as needed.

United States
Environmental Protection
Agency

Office of Land and
Emergency Management
(5105T)

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www.epa.gov/brownfields/
www.epa.gov/land-revitalization