

City of Allentown, PA
Re-Industrialization
Strategy

Phase III
Former Allentown
Metal Works
Redevelopment
Strategy



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EXECUTIVE SUMMARY

The **City of Allentown** and the **Allentown Economic Development Corporation** have commissioned **Camoin Associates** and **Bergmann Associates** to prepare this analysis of the **Allentown Metal Works** site at 606 South 10th Street as Phase III in a comprehensive Re-Industrialization Strategy for Allentown. This vacant industrial complex contains over a dozen structures on two (2) parcels that total approximately 19.22 acres. It is adjacent to the Little Lehigh Creek and is ideally situated as the next step in the City’s ongoing efforts to re-industrialize and support both economic growth and job creation. This site’s proximity to a readily available labor pool, optimal transportation links and solid infrastructure makes it an ideal and very marketable opportunity for potential manufacturers.

This Phase III study addresses the challenges and opportunities contained within this site and its immediate surroundings. This vision, supported by data and analysis, shows that with the inclusion of publicly assisted gap financing, redevelopment of this property to meet both contemporary and future need can be made financially viable. The bones of the structures are strong and can be readily improved to provide both flexibility and quick delivery to market required by industrial and manufacturing corporations.

Master Plan Concept

Buildings to Remain:	A @	41,719 Gross Square Feet	<i>Phased Option - II</i>
	B @	125,000 Gross Square Feet	<i>Phased Option - III</i>
	G @	51,125 Gross Square Feet	<i>Phased Option - I</i>
Leasable Industrial Space:			217,844 Gross Square feet
Buildings to be removed:	C @	38,400 Gross Square Feet – Storage buildings	
	D @	10,100 Gross Square Feet – Offices & Pattern Shop	
	E @	3,300 Gross Square Feet – Drafting Room	
	E @	6,200 Gross Square Feet	
Total Demolished Space:			58,000 Gross Square feet
On Site Parking – Cars:	312 Spaces (<i>Accommodates up to 600 Employees/Shift</i>)		
On-Site Parking – Semi Tractor Trailers:	25 Spaces (<i>Includes two Truck Holding Zones</i>)		
Loading Bays – Drive in and Exterior:	20 Bays (<i>8 tailgate, 5 At-grade, 3 Drive-in, 4 Rail</i>)		
Rail Siding:	16 Cars (<i>On-site</i>)		
Estimate of Probable Construction Cost:	\$22.7 MM (<i>Prevailing Wage Basis</i>)		
Optimal Lease Spaces	One to three Spaces ranging from 41,719 SF to 217,844 SF		
Infrastructure:	Replace Utilities to Street Connections		
Envelope:	New Insulated Walls, Roofs & Clerestory Monitors		
	New Thermal Windows & Doors in Existing Fenestrations		
	Masonry & Stucco Repairs, Stabilization & Cleaning		
	Interior Heavy Slab Repairs and Infill		
Building Systems:	New Sprinkler Fire Protection all Buildings		
	New Electrical Service & Distribution to Buildings/Lease Spaces		
	New General and Emergency Lighting on Site & In Buildings		
	New Gas Service & Distribution to Buildings/Lease Spaces		
	New Water / Sanitary Service & Distribution to Buildings/Lease Spaces		

Financial Feasibility Summary

Redevelopment of urban properties, particularly urban industrial properties, is a challenging process that requires cooperation and financial support from public, private, and non-profit sectors. The Metal Works property is no exception.

Camoin worked with the project team to prepare a financial feasibility study that utilizes projections on price/rental points, construction and operating costs, and other key economic and financial information. The financial feasibility analysis of the Metal Works site went through several iterations. The team ultimately separated redevelopment of Metal Works into three phases and modeled each phase cumulatively. In the first phase, Building G is redeveloped as a pilot project to test the market (Scenario 1). In Scenario 2, Buildings G and A are redeveloped in two construction phases. Scenario 3 shows full build out of the site in three construction phases and includes redevelopment of Buildings G, A & B in years 1, 4, and 7 respectively.

Results of the financial feasibility analysis are summarized in the following table.

Financial Feasibility Summary			
Scenario	Building G	Building G & A	Building G, A, & B
Leasable Space (SF)	51,125	92,844	214,484
Construction Costs	\$5,656,372	\$9,161,817	\$24,657,932
Equity Necessary to Meet DSCR 1.25	\$3,208,659	\$5,084,072	\$12,328,966
Rate of Return (IRR)	0%	1%	0%
Outside Funding Necessary for 15% IRR	\$3,000,000	\$4,500,000	\$10,000,000

Terminology used in the table above is defined as follows:

- Equity Necessary to Meet DSCR** – The debt service coverage ratio (DSCR) is a measure of the resources available to pay debt service (calculated as the ratio of net operating income to debt service payments). Typically, banks like to see a ratio of at least 1.25. To reach this threshold, significant equity investments are necessary.
- Rate of Return (IRR)** - The internal rate of return (IRR) is a formula used to calculate the rate of return for investments that create different amounts of annual cash flow. Typically, a benchmark of 15% is the minimum IRR a private investor will accept. Note that, for a public entity like AEDC, an IRR of zero is essentially a public investment of a zero-percent loan. Presumably, the public goal of job creation for a project such as Metal Works outweighs the desire for a financial return on investment.
- Outside Funding Necessary for 15% IRR** – This is the level of outside funding, or grant funding, necessary for the IRR to reach 15%. At this rate of return, the private sector would likely become interested in the project.

Economic & Fiscal Impact Summary

The economic impact of the renovation and construction activity associated with preparing the three buildings for occupancy is summarized in the table below. It is expected that there will be a one-time economic impact of 339 jobs (annual full-time equivalent), \$10.7 million in earnings, and \$26.5 million in sales.

One-Time Economic Impact from Construction				
	Phase I	Phase II	Phase III	Total
Jobs	84	52	202	339
Earnings	\$2,658,499	\$1,647,561	\$6,364,682	\$10,670,742
Sales	\$6,597,787	\$4,088,872	\$15,795,690	\$26,482,350

Source: EMSI

The economic impact of the businesses that will occupy the three buildings are presented in the following table. The total jobs impact is expected to range from 73 jobs to 396 jobs. This range is attributable to assumptions made about the number of employees per square footage of building space. The high case is derived from a review of literature sources while the low case comes from measured employment in AEDC's Enterprise Zone. Total annual earnings will total \$3.8 million to \$21 million and annual sales in the City as a result of the project will range between \$13 million and \$70 million.

Annual Economic Impact from Operations				
	Phase I	Phase II	Phase III	Total
High Case Scenario				
Jobs	100	76	220	396
Earnings	\$6,802,242	\$3,139,935	\$11,093,823	\$21,036,000
Sales	\$24,600,134	\$11,372,049	\$34,179,034	\$70,151,217
Low Case Scenario				
Jobs	19	14	40	73
Earnings	\$1,275,420	\$579,680	\$1,981,040	\$3,836,140
Sales	\$4,612,525	\$2,099,455	\$6,263,174	\$12,975,154

Source: EMSI

The Project will also generate a fiscal impact to the City of Allentown. As shown in the table below, the fiscal impact of the Project is expected to range from a net loss of \$183,000 in the high case scenario to a \$248,000 annual loss to the City in the low case.

Annual Fiscal Impact: City of Allentown				
	Phase I	Phase II	Phase III	Total
High Case Scenario				
Total Revenue	\$ 29,431	\$ 21,060	\$ 66,556	\$ 117,047
Total Expenses	\$ 74,695	\$ 46,291	\$ 178,827	\$ 299,813
Net Change	\$ (45,264)	\$ (25,231)	\$ (112,270)	\$ (182,766)
Low Case Scenario				
Total Revenue	\$ 12,903	\$ 8,499	\$ 30,195	\$ 51,597
Total Expenses	\$ 74,695	\$ 46,291	\$ 178,827	\$ 299,813
Net Change	\$ (61,792)	\$ (37,792)	\$ (148,632)	\$ (248,216)

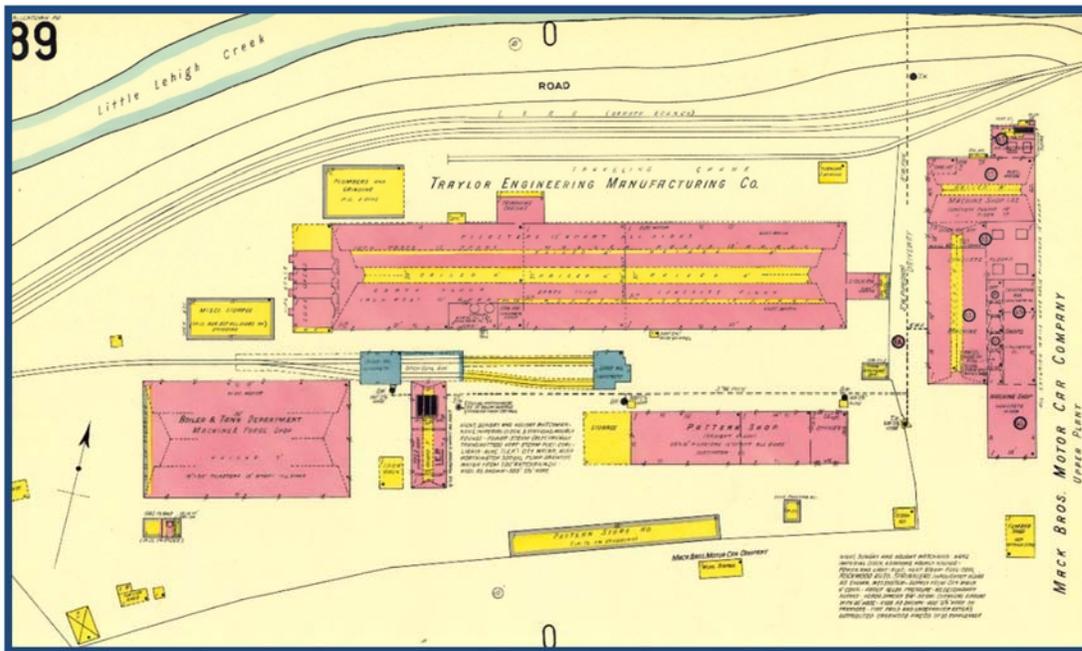
Note: Includes new Earned Income Tax revenues to the School District

Source: Camoin Associates

INTRODUCTION

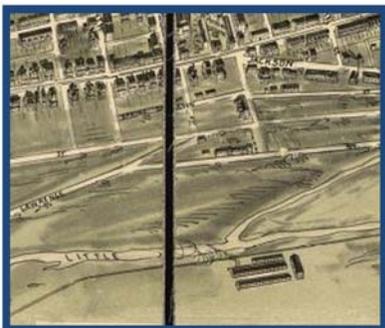
History

Available Sanborn and bird’s-eye-view maps of Allentown reveal that the subject properties were developed between 1897 and 1902. The Sanborn map for 1911 indicates that the building along what is now South 10th Street was the first structure for the Mack Brothers Motor Car Company. The site immediately to the west was Traylor Engineering Manufacturing Company – founded in 1902 by Samuel Traylor as manufacturers of heavy duty mining equipment and briefly a munitions plant during WWI. Buildings included a Foundry, Pattern Shops, Boiler & Tank Department Forge, Coal-fired Steam Boiler/Power Plant and assorted support structures, including an exterior traveling crane, adjacent to the Lehigh Valley Rail Road – Barber Branch. These original buildings are structured primarily of steel and/or iron columns supporting open heavy timber wood frame trusses with iron tie rods, and are enclosed with a curtain wall of brick masonry. Foundations are concrete with heavy reinforced concrete slabs in some portions of the foundry while other portions of the foundry had earthen floors.



Traylor Engineering Manufacturing Co. C. 1911.
Source: Sanborn Maps Company

These bird’s-eye-views from 1901 and 1922 show the status of the buildings on the site.

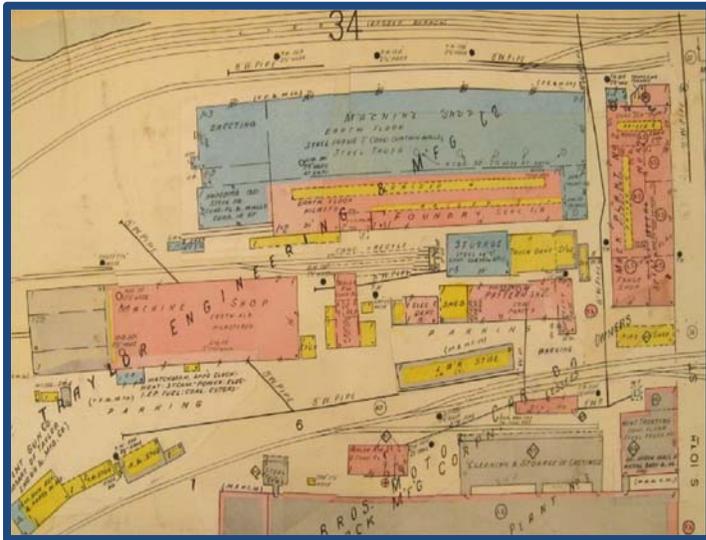


Traylor Engineering and Manufacturing Company, C. 1901.
Landis & Alsop Birds-eye-view of Allentown, PA
Source: Library of Congress



Traylor Engineering and Manufacturing Company, C. 1922.
Hughes & Fowler Birds-eye-view of Allentown, PA
Source: Library of Congress

A 1930's era Sanborn Map shows a build-out of the Foundry Building towards the creek, layout for an addition to the Machine Shop (formerly Boiler and Tank forge) expanded Pattern Shops as well as structures (now gone) for the Cement Gun Company. The Mack Building along South 10th Street has been expanded but not yet consolidated with the Traylor Engineering and Mfg. Company.



*Traylor Engineering & Mfg. Co.
C. 1932.
Source: Sanborn Maps Company*

Tax records indicate that the building at 606 South 10th Street (parcel 549697391312 1) was purchased in January of 1990 by the Fuller Company who sold it to BVI Precision Materials for \$1.9 million in August of 2005. BVI defaulted on loans and Allentown Metal Works (later named 600 South Tenth Street Holding Co.) took over in 2008. Allentown Metal Works made large steel bridge and power plant components. The company employed about 130 workers at its peak in 2008, but gradually laid off employees until it closed in January of 2011. In the spring of 2013, the Allentown Economic Development Corp. purchased the former Allentown Metal Works property for \$500,000.

In December of 2009, Barack Obama used the site as a backdrop during a visit to the Lehigh Valley. After Allentown Metal Works closed, Mitt Romney used the site as the setting in June of 2011 to make a speech about Mr. Obama's economic policies.

Environmental

AEDC completed a Phase II Environmental Assessment in the spring of 2013 before completing the property purchase.

Incentives

The property is in the Enterprise Zone – benefits include:

- *Federal grants, tax credits, priority consideration for Pennsylvania Department of Community and Economic Grants & business development loans*

In December of 2013 the property was added to the Keystone Opportunity Zone, requiring the approval of the Allentown School Board, the City Council and the Lehigh County Commissioners.

- *KOZ: Tax deferrals on local real estate and other taxes, as well as Commonwealth taxes are provided through December 31, 2023*

REINDUSTRIALIZATION STRATEGY PHASES

The City of Allentown, in partnership with the Allentown Economic Development Corporation (AEDC), retained the consulting team led by Camoin Associates that included Bergmann Associates, Thomas P. Miller Associates and Innovation Policyworks to create a multi-phased reindustrialization strategy that establishes a model of sustainable economic development within the urban environment. Phase I of the study included the development of a city-wide sustainable reindustrialization strategy. Phase II of the study modeled this overall strategy by applying it to the Little Lehigh Study Area. This Phase III study focuses upon re-use opportunities for the Allentown Metal Works.

STRATEGY Phase I – City-Wide Re-Industrialization

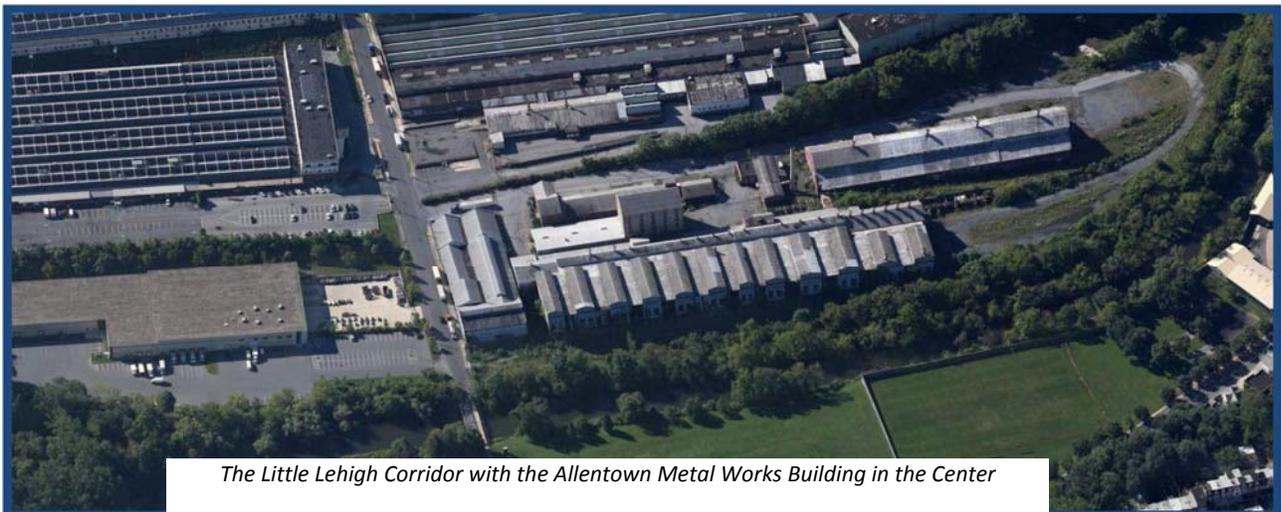
The consultant team, with guidance and support from City and AEDC staff, collected information through interviews, focus groups, economic data collection and analysis, web research, windshield survey, building walkthroughs, and reviewed existing planning documents. The findings were analyzed and a series of recommendations were developed to spur industrial activity and investment within the City. Recommendations and findings from Phase I were carried forward and further refined as part of Phase II.

STRATEGY Phase II – Little Lehigh Industrial Corridor

Phase II of the Re-Industrialization Strategy, the Little Lehigh Industrial Corridor Master Plan, includes an in-depth inventory and analysis of existing conditions and a series of site-specific recommendations, which serve as a model for the re-industrialization of other parts of the City. This plan was developed with input from the City, AEDC and the public, resulting in the development of a strategic master plan for the re-industrialization of the Little Lehigh Industrial Corridor.

STRATEGY Phase III – Allentown Metal Works Reuse Study

As a follow-up to Phase II, this third phase of the re-industrialization strategy focuses upon a major opportunity: the reuse of the AEDC-owned former Allentown Metal Works property. Based upon a survey of the buildings and site, this study provides a strategy for renovations that will increase the marketability of the property for one or more industrial users.



The Little Lehigh Corridor with the Allentown Metal Works Building in the Center

EXISTING CONDITIONS

Key Findings

The physical conditions of the Allentown Metal Works complex reveal a very workable potential to bring to market an array of buildings with significant clear span and high clearance. These structures can support heavy physical loads. They already have optimal facilities for materials delivery, fabrication, assembly and convenient transport of finished products via truck and *potentially* rail. In addition, the labor pool in the Lehigh Valley can support this re-industrialization effort.



Following is a brief summary of the Allentown Metal Work’s challenges and strengths:

Challenges

- **STORMWATER MANAGEMENT & FLOOD CONTROL**

The north and northwest portions of the property fall within the current FEMA designated 500 year flood zone from the Little Lehigh Creek. This primarily affects the loading yard at the end of Building B and partial basements in the northeast corner of buildings A & B. The 100 year flood has an approximate elevation of 264 feet. The basement of Building A and loading end of Building B are at approximate elevation 262 feet.

- **SELECTION OF SPECIFIC BUILDINGS FOR REMOVAL**

The site contains a number of secondary buildings (C, D, E & F) and appurtenant structures that may be appropriate for a single company operation but inhibit optimal building and site efficiency for multiple company use. Such secondary buildings and structures as the boiler plant (F), pattern shop/offices (D & E), storage (C), chimney and rail trestles are outdated, in poor condition, do not lend themselves to effective re-use and inhibit optimal vehicular access, use and circulation through the site. If a phased option approach is used, these would be removed under Phase III.

• ECONOMIC VIABILITY OF ENVELOPE STABILIZATION

This complex of buildings is an accumulation of multiple structures, from different timeframes, stitched together with a wide range of physical connections. Ongoing efforts to weather seal the buildings over the past several decades has included: (1) cementitious, spray applied coatings on roofs and masonry; (2) infill of existing masonry fenestrations (windows and doors); (3) shed roofs; and (4) exterior applied steel framing for masonry wall reinforcement. Optimal re-use will require roof replacement, masonry stabilization, joint re-sealing, thermally efficient window and door systems, and infill of recesses in slabs. Given the amount of surface area on the buildings, costs must be measured against a baseline for constructing a new building of comparable size and scale.

• RESTORING RAIL ACCESS

The existing right-of-way, will require stabilization, a new rail bed, protective barriers, upgrades to current clearance standards and linkage into the CSX and NS rail networks in the Lehigh Valley. Securing CSX and NS's participation and support will be critical in returning active freight rail to this re-industrialization effort. Under current rail standards, the existing +/- 40 foot right-of-way will permit only a single track.

• OPTIMAL SUBDIVISION OF BUILDINGS & SPACES

All of the buildings on the site have multiple service entry, employee entrance and loading access points. The three buildings (A, B & G) targeted for redevelopment are also connected by linking corridors and ramps. This provides flexibility in determining optimal subdivision of spaces for multiple, heavy industry users. The challenge will be to develop viable and leasable components of space based upon: (1) working with this wide array of connection and access points; (2) introducing very tall partition separations in optimal locations; and (3) integrating the layout with existing provisions for heavy lift cranes in Buildings B & G.

• REPARING &/OR REPLACING INFRASTRUCTURE & SERVICES

The current boiler plant is well beyond the economic viability of repair and restoration of services. The existing water, sanitary, gas, electric and communication lines have been idle for a number of years and it is unlikely that they can be restored to service. This will require all new services from utilities located in South 10th Street to multiple meters on site. Sufficient existing capacities for electric and gas need to be verified with connection costs factored into the pro forma. It is assumed that all new power distribution, lighting, water, sanitary, storm water, gas and communication lines will be installed as a critical part of the modernization to code.

• 10TH STREET BRIDGE

The current bridge is structurally sound for heavy loads but is undersized for two way traffic and potential pedestrian links. Its widening will support but is not critical to this re-industrialization effort. The widening will provide safer access for hiking, biking and pedestrian use. Costs are not included in this study.

• BALANCING COMMUNITY AMENITY WITH RAIL AND INDUSTRIAL USES

Community demand for recreation via a biking/hiking trail amenity must be balanced with the requirements for freight rail service and heavy truck access, in order to achieve a successful industrial re-use. Safe separations and controlled crossing points are required.

Strengths

- **STRONG BONES**

The structures of the existing factory buildings are in relatively good and stable condition. Major reconstruction of components should not be required.



SEE APPENDIX – FIGURE 1

- **HEAVY LOAD CAPACITY**

The slabs, foundations and mezzanine are oversized for heavy industrial loading. Existing provisions are in place for the re-installation of heavy lift cranes in Buildings B & G.

- **CLEAR VOLUMES OF INTERIOR SPACE**

The factory floors provide a variety of significant clear span and clear height spaces.

- **HEAVY VEHICULAR ACCESS & EXTERIOR SPACE**

This site offers: (1) convenient proximity to railroad rights-of-way; (2) a truck access loop road to serve multiple uses and industry; (3) ample area for materials staging, rail sidings, truck and product storage; (4) convenient linkage to a major highway and rail networks.

- **FLEXIBILITY AND ADAPTABILITY**

The building configurations, multiple access points and ample space within the site provides a flexibility that will allow tailoring space(s) to a wide range of industrial and corporate support requirements within the domestic and international market.

- **COMPATIBILITY & CONNECTION**

The character of the buildings and industrial uses fit comfortably into the surrounding fabric of the valley within Allentown that borders the Little Lehigh Creek.

- **AVAILABILITY**

Given the conditions of the existing property, buildings and zoning, the remediation, repair and ready-occupancy can be easily achieved in a very short timeframe for potential domestic and foreign industrial corporations.

- **LOCATION-LOCATION-LOCATION**

This re-industrialization zone is in the heart of the Lehigh Valley with easy access to the interstate highway system, the CSX and Norfolk Southern Rail networks and a large pool of available labor.

Considerations

• COMPLETE DEMOLITION VERSUS RE-USE

Given the scale of the existing structures and foundations, the costs and time required for complete demolition, site stabilization, planning, design, approvals, remediation and new construction will likely far exceed the costs and reasonable timeframes for bringing new facilities of comparable size to market.



Allentown Metal Works
Aerial View with Proposed Demolition Area Indicated
Source: Google Maps

In the chart below, the proposed construction approach for renovating buildings A, B & G shows capital costs of **\$22.7MM**, which is approximately **56%** of **\$40.5MM** required for complete demolition (including recycled material cost offsets) and comparable new construction. Soft costs and additional time required for planning approvals, legal services, permitting, demolition and construction could potentially double for complete demolition and comparable new construction. The only benefit would be a nominal increase in site and building efficiency.

PROPOSED CONSTRUCTION APPROACH				
Component:	Quantity	Unit	\$/Unit	Construction Costs
Demo Site	13	AC	\$ 6,384.62	\$ 83,000
Demo A,B,G-Selective	217,844	SF	\$ 2.50	\$ 544,610
Demo C,D,E,F - Total	1,081,000	CF	\$ 0.25	\$ 270,250
Appurtenance	200,000	CF	\$ 0.10	\$ 20,000
Building A	41,719	SF	\$ 53.32	\$ 2,224,395
Building B	125,260	SF	\$ 67.18	\$ 8,415,448
Building G	50,725	SF	\$ 66.38	\$ 3,366,903
Site Work	15	AC	\$ 142,200.00	\$ 2,133,000
Subtotal				\$ 17,057,605
Estimating Variances		10%		\$ 1,705,761
Contractor's General Conditions		10%		\$ 1,876,337
Project Contingencies		10%		\$ 2,063,970
TOTAL	217,840		\$ 104.22	\$ 22,703,673
NEW CONSTRUCTION				
Component:	Quantity	Unit	\$/Unit	Construction Costs
Demo Site	10	AC	\$ 8,300.00	\$ 83,000
Demo A,B,G	9,250,000	CF	\$ 0.40	\$ 3,700,000
Demo C,D,E,F	1,081,000	CF	\$ 0.25	\$ 270,250
Appurtenance	200,000	CF	\$ 0.25	\$ 50,000
New Factory	217,844	SF	\$ 125.00	\$ 27,230,500
New Site Work	15	AC	\$ 142,200.00	\$ 2,133,000
Subtotal				\$ 33,466,750
Estimating Variances		10%		\$ 3,346,675
Contractor's General Conditions		10%		\$ 3,681,343
TOTAL	217,840		\$ 185.89	\$ 40,494,768

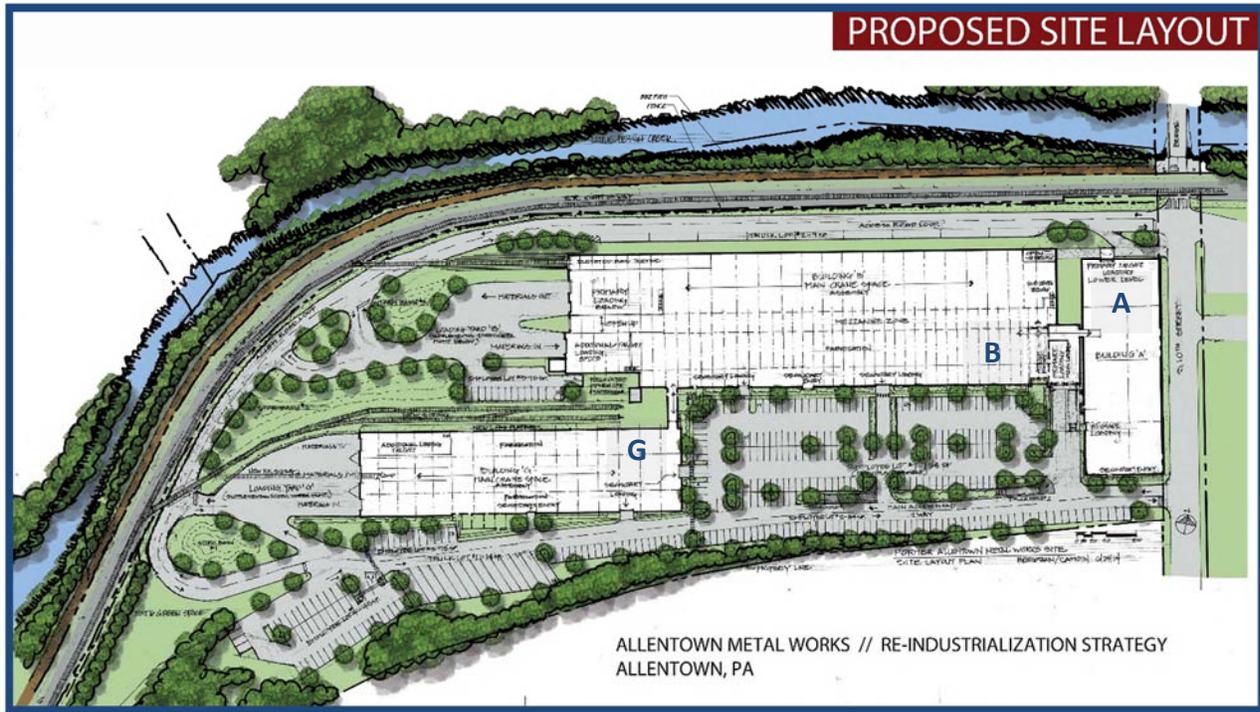
Allentown Metal Works
Estimated Magnitude of Cost Comparison between Partial Demolition/Renovation Versus Total Demolition/New Construction

Note #1:
Partial Demo/Reno includes Contingency for unknowns

Note:#2:
10% is budgeted for Contractor General Conditions Costs required to Manage Project

CONCEPTUAL MASTER PLAN

By focusing on bringing Buildings A, B and G back to life, designing a more efficient use of the site, improving overall site circulation and upgrading utility services, the Allentown Metal Works can become an attractive opportunity for those seeking up to 217,844 square feet of industrial and support spaces.



SEE APPENDIX – FIGURE 7

Building Revitalization

• BUILDING A

This one-story, stucco-coated masonry structure with exposed wood and iron trusses at South 10th street.

- Heavy loading is available at the basement level on the north side and courtyard on west side.
- Primary loading and access is available from what will be the inner plaza of the project. Heavy loading may be shared with Building B.
- The building is divided into a number of different sized and scaled spaces and has a direct ramp connection to Building B.
- Many of the arched openings on the exterior facades can be re-opened, providing natural light.
- This building has the flexibility to provide a variety of small fabrication areas, research labs or corporate office support spaces for industrial uses in Buildings B and G.
- All mechanical, fire protection, electrical and plumbing systems should be removed and replaced.

• BUILDING B

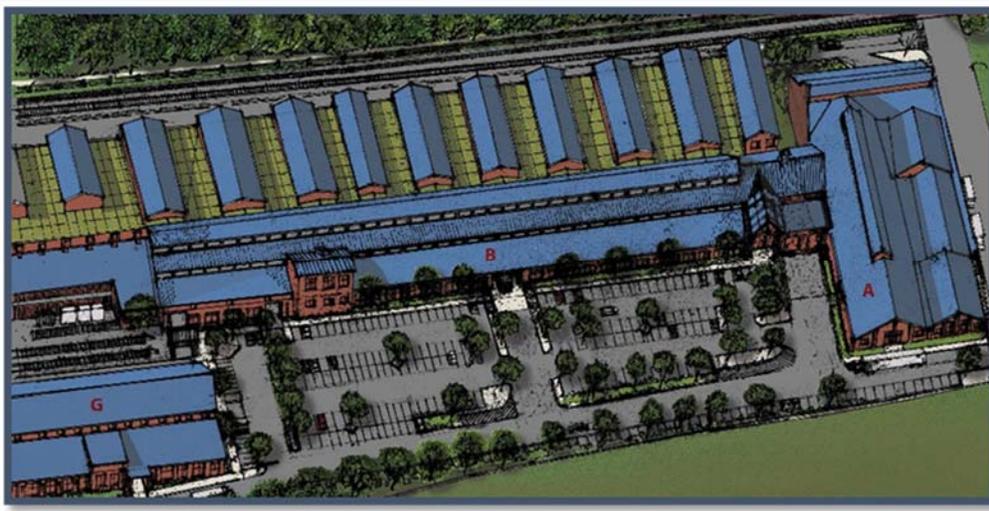
There are four main components to this steel framed and masonry enclosed structure.

- The first is the original foundry with lower wood and iron trusses.
- The second component is a large open, free span space, which extends the full length of the building and contains supports on the north wall for a heavy lift crane.
- The third component, which is on the south side of this main space (adjacent to the original foundry) is a steel framed mezzanine, extending the full length of the building and providing the other half of the support for a heavy lift crane.
- The fourth component are three large areas at the west end of the building, providing drive-in loading and an elevated train trestle.
- The building also has a concrete vault basement located in the northeast corner accessible from grade and via openings in the factory floor.
- This building features high spaces, with natural light from windows in the brick curtain walls and multi-bay monitors at the roof. The connection area between Buildings A and B can easily be converted into an Atrium to create a main entrance to the complex.
- All mechanical, fire protection, electrical and plumbing systems should be removed and replaced.

• BUILDING G

This one-story masonry enclosed building with iron lattice columns and wood/iron trusses is connected to Building B via a direct corridor.

- This building features in-place provisions for a medium lift crane, extending the entire length of the building, within in the center bay.
- The far west end features at grade drive in and rail car access.
- The building includes large openings in the masonry for windows as well as a clerestory above. Multiple access points for light and heavy loading allows this building the opportunity as a stand-alone use or a part of the adjacent industrial spaces.
- All mechanical, fire protection, electrical and plumbing systems should be removed and replaced.



*Allentown Metal Works
Aerial View with
Proposed Landscaped
Center Plaza*

SEE APPENDIX – FIGURE 2

• BUILDING E

Demolishing this small, one story masonry with exposed wood truss structure could also be considered a compromise to the visual character of the site. However, its small size, terrible physical condition and limited ability to contribute to useable square footage is a compromise worth taking under serious consideration.

- Its removal will improve access, functionality and flexibility for re-use of the buildings A, B & G as industrial structures

• BUILDING F

The original boiler plant with appurtenant structures such as rail trestles and chimney are well past the condition where there exists an opportunity for reasonable re-use.

- The space was designed for boilers and power plant.
- Clearing interiors of integral equipment structures for re-use will require extensive exterior reinforcement – far outstripping benefit of return on investment.

• SITE APPURTENANCES

Removal should include miscellaneous sheds, shed roofs, trellis framework, rail trestles, chimney stack, power infrastructure and non-structural appendages.

• RENEWABLE ENERGY POTENTIAL

Building B & G rooftops can accommodate up to **5,000 photovoltaic panels** (245 watts each) generating **1.2MM kWh/Year** and providing between **15% and 20%** of anticipated annual electrical loads. Capital expenditure for PV would be **\$2.8MM** and PPI excess power buy-back or reduction in electrical costs may return around **\$100,000 per year**. With PPI incentives of up to \$52,000, **ROI** would be **25 to 30 years**.

Zoning Parameters

• USE: I-3 INDUSTRIAL

- COVERAGE LIMITATIONS : 33% Proposed < 70% Maximum

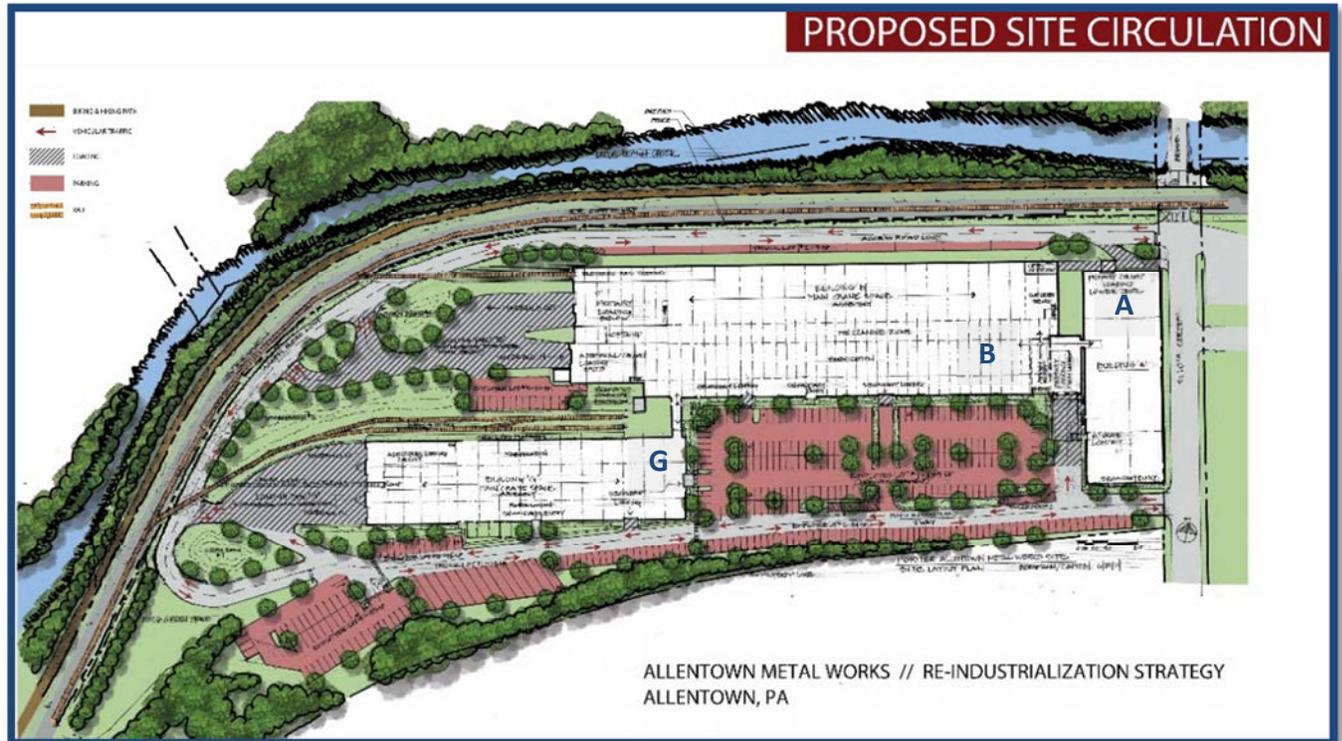
• SIGNAGE:

- 10% of Wall Area not-to-exceed 300 SF
- 1 Free-standing sign 150 SF maximum, with 10 foot clearance below and maximum 20 foot height above street centerline elevation

Site Access

• VEHICULAR - GENERAL

The proposed layout features a two-way main loop road connected to two gate-controlled vehicular entrance/exits along South 10th Street. If a phased approach is used, 50% of road to be installed under Phase I and remainder of road under Phase III.



*Allentown Metal Works
Primary Pathways and Parking*

SEE APPENDIX – FIGURE 6

• HEAVY TRUCK

Via the main loop road, provisions are made for 2 holding spaces at the courtyard for staging and backing in full size trucks, 14-space semi-tractor trailer truck parking lot across from Building G and a second 9-space staging zone along the north side of Building B. For Buildings A, B and G they all have separate access points to their loading yard and bays as follows:

Building A Loading:

- 2 tailgate loading at Main Level
- Truck pull off along loop road with back in to two bay loading
- 1 at grade loading at new loading dock
- 1 tailgate loading at Lower Level

Building B Loading:

- 1 at grade loading along main level courtyard for full size trucks
- Truck pull off along loop road with back in to on bay loading with drive in option
- 1 Secondary drive in loading for smaller trucks at main level courtyard

- 3 at grade loading at lower level end (fully enclosed)
- 3 tailgate bay loading at lower level end (fully enclosed)

Building G Loading:

- 1 Secondary at grade drive in at main level from courtyard
- 2 tailgate loading at west end of building (fully enclosed)
- 1 drive in &/or rail roll in loading at west end of building (fully enclosed)
- One exterior tailgate loading bay and three tailgate interior loading bays
- Four drive-in primary loading bays and four secondary drive-in loading bays are provided

● **RAIL**

Assuming that the existing rail “right-of-way” is returned to active use, one spur would extend into Building B via a ramped trestle. A second spur will connect with the existing track rails into Building G and a third spur will run parallel to and north of Building B with the opportunity for a two-track rail siding with 3 bay offloading platform.

- Clearance requirements permit one track in the existing right-of-way.
- Per the PUC and PADOT, flashing lights South 10th Street, flashing lights and gates will be required at Lehigh Street, and there should be flashing warnings all at grade track crossings within the site.



*Allentown Metal Works
Revitalizing Freight
Rail Access and
Service*

**SEE APPENDIX –
FIGURE 6**

● **AUTOMOBILE**

Cars will access and leave the site through the control gates on the two entry/exits for loop road at South 10th Street. A total of 312 parking spaces can be provided on site.

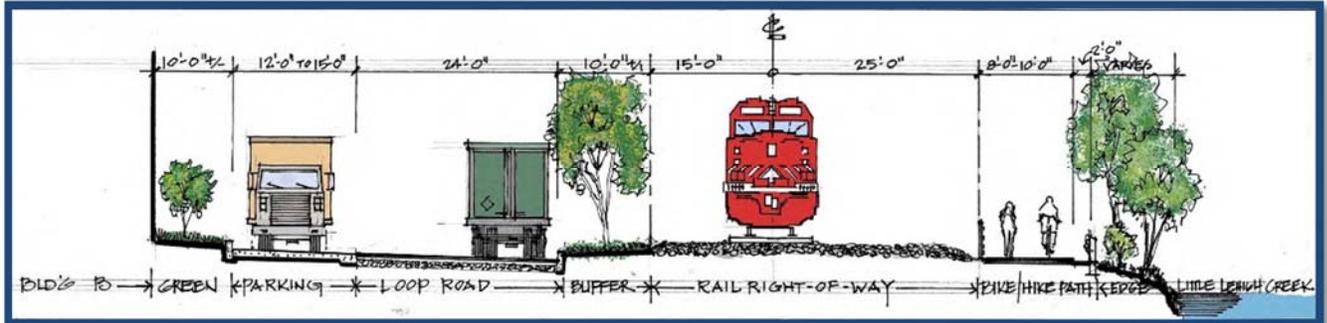
- The primary parking lot with 152 spaces will be located in the new plaza courtyard defined by Buildings A, B and G.
- An additional 84 spaces can be across the main loop access road from the primary parking zone.
- Adjacent to the Truck Parking zone at the southwest corner of the site can handle another 58 spaces.
- A fourth lot immediately adjacent to loading yard for Building B could provide 16 spaces.

● **PEDESTRIANS**

Sidewalk connections will be provided from the southern access along South 10th Street with a network of paved walkways within the site.

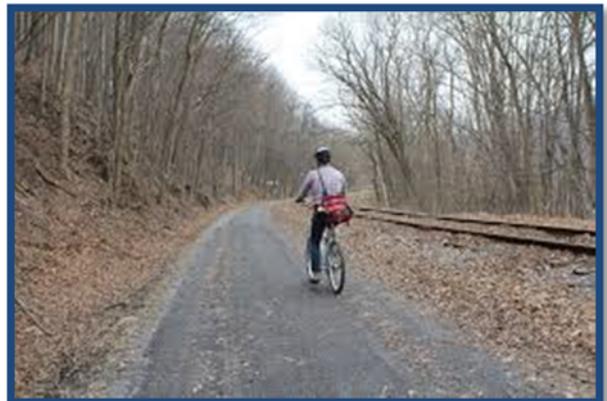
● PASSIVE RECREATION

The intent is to include accommodation for the continuation of a proposed, paved bike/walking trail by others, parallel to Little Lehigh Creek, railroad right-of-way and Allentown Metals Works loop road.



SEE APPENDIX – FIGURE 7

- Access to the hiking/biking trail is via the northern loop road entrance along 10th street.
- Creek edge stability, minimum rail clearance and minimized track crossing supports the following:
 - *Creek edge stabilization, green-space buffer and wood-post metal guardrail at biking/hiking path*
 - *8 foot wide paved hiking/biking path between the guardrail and railroad right-of-way*
 - *4 foot high metal fence on the north side of the railroad right-of way*
 - *25 feet from protective guardrail or fence on northern right-of-way border to centerline of single track per railway safe clearance standards*
 - *12 to 15 foot from centerline of track to railroad right of way on southern side*
 - *10 foot green buffer strip*
 - *24 foot wide cart way for loop road*
 - *15 foot concrete paved truck parking pull-off lane*
 - *Green strip buffer to Building B*



Infrastructure

• UTILITIES AND SERVICES

Existing services and utilities are assumed unserviceable and removed back to points of connection at mains. Repair/replace tap connections for new primary service with manifold for individual metering at each building or primary lease space. Provide for sub-metering for secondary lease spaces.

- Electrical Service: PPL overhead service at 3-Ph 480/277v; 3000KVA service is estimated from street to transformer bank between Buildings B & G – With meters & secondary to each building in conduits
- Gas Service: UGI service at 10th St. curb - 4" Steel pipe at 60psig medium pressure; Estimated load is 36,000 Therms or 3.6M CF Natural Gas
- Water Service: Lehigh Co. Auth. 12" main with 10" tap at S.10th Street feeds Bld'g. A; 10" main crossing Little Lehigh Creek has 8" Fire with 4" Domestic line to Bld'g. B and single 6" to Bld'g. G;
 - Provide manifolds on the two 10" laterals to split each into 10" Fire service & metered 2" Domestic Service for each building – with backflow prevention on each line
 - Domestic service is based on estimated load of 750 WSFU & 177GMP
- Sanitary Service: Lehigh Co Auth. 24" main and manhole at S.10th Street; Provide new 6" DIP service and tap based upon 400 DFU; Assume 4" DIP laterals from each building along northern loop road
- Telecom Service: Verizon service at NE corner of site is sufficient to support proposed uses
- Roof Drainage: Varies with each building & design requirements for 3" 1-hour rainfall

• ROADWAYS

Existing roadways will be removed and new extra heavy-duty paving will be provided throughout:

- Bituminous paving at main loop road includes widening at north side for proposed biking/hiking path
- Reinforced concrete at loading yards and truck parking areas
- Pervious concrete paving at automobile parking lots to assist in addressing storm water management
- The offsite 10th Street bridge over the Little Lehigh Creek be replaced and/or enlarged for heavy two way traffic plus pedestrian crossing (need to be determined by City upon redevelopment)

• STORM WATER MANAGEMENT

The percent of impervious surface will be maintained or decreased via a variety of techniques:

- Pervious concrete in selected low vehicle load areas
- Multiple storm water detention basins
- Sub-surface storm water detention
- Green Roof opportunities (if cost effective) in selected, suitable structurally acceptable locations on Building B
- Grey-water collection and storage for sanitary and irrigation use
- Levee, grading and flood barrier techniques to prevent floodwater infiltration into low areas within Buildings A and B

Project Site & Use Metrics

• SITE

The following are preliminary estimates subject to further refinement in subsequent development phases:

○ Site Data

Acres:	<i>Existing - 19.22 AC</i>	<i>Proposed - 19.22 AC</i>
Pervious Surface:	<i>Existing - 424,223 SF 50.67%</i>	<i>Proposed - 374,223 SF 44.67 %</i>
Impervious Coverage:	<i>Existing - 200,000 SF 23.83%</i>	<i>Proposed - 276,000 SF 33.00%</i>
Building Coverage:	<i>Existing - 213,000 SF 25.50%</i>	<i>Proposed - 187,000 SF 22.33%</i>
Automobile Parking:	<i>Existing - 200 (Estimate)</i>	<i>Proposed - 312 Spaces</i>
Allocated Truck Parking:	<i>Existing - NA</i>	<i>Proposed - 25 Spaces</i>
Loading Bays	<i>Existing - 8 Bays</i>	<i>Proposed - 20 Bays</i>
1 tailgate/7 drive-in	<i>8 tailgate/5 at grade /3drive-in</i>	
Rail	<i>Existing - 10 Cars</i>	<i>Proposed - 16 Cars</i>
Fencing/Barriers	<i>Existing - NA</i>	<i>Proposed - 2,400 Linear Feet</i>

• BUILDINGS

The following are preliminary estimates subject to further refinement in subsequent development phases:

○ Demolition:

Total Buildings	<i>Existing - 268,000 SF</i>	<i>Proposed - 68,000 SF</i>
------------------------	------------------------------	-----------------------------

○ Building A:

Footprint Area	<i>Existing - 30,450 SF</i>	<i>Proposed - 30,450 SF</i>
Basement Area	<i>Existing - 11,269 SF</i>	<i>Proposed - 11,269 SF (Minimal Use)</i>
Roof Area	<i>Existing - 46,150 SF</i>	<i>Proposed - 46,150 SF</i>
Wall Area	<i>Existing - 12,224 SF</i>	<i>Proposed - 12,224 SF</i>
Fenestration Area	<i>Existing - 3,380 SF</i>	<i>Proposed - 3,380 SF</i>
Eave Height	<i>Existing - 15'-4" AFF</i>	<i>Proposed - 15'-4" AFF</i>
Ridge Height	<i>Existing - 29'-2" AFF</i>	<i>Proposed - 29'-2" AFF</i>
Clear Height	<i>Existing - 13'-7" AFF</i>	<i>Proposed - 13'-7" AFF</i>

○ Building B:

Footprint Area	<i>Existing - 102,140 SF</i>	<i>Proposed - 102,140 SF</i>
Basement Area	<i>Existing - 3,600 SF</i>	<i>Proposed - 3,600 SF (Minimal Use)</i>
Mezzanine Area	<i>Existing - 15,900 SF</i>	<i>Proposed - 15,900 SF</i>
Roof Area	<i>Existing - 175,000 SF</i>	<i>Proposed - 175,000 SF</i>
Wall Area	<i>Existing - 79,376 SF</i>	<i>Proposed - 79,367 SF</i>
Fenestration Area	<i>Existing - 18,508 SF</i>	<i>Proposed - 18,508, SF</i>
Eave Height	<i>Existing - 30'-0" & 46'-0" AFF</i>	<i>Proposed - 30'-0" & 46'-0" AFF</i>
Ridge Height	<i>Existing - 49'-0" & 65'-0" AFF</i>	<i>Proposed - 49'-0" & 65'-0" AFF</i>
Clear Height	<i>Existing - 33'-0" & 49'-0" AFF</i>	<i>Proposed - 33'-0" & 49'-0" AFF</i>

○ Building G:

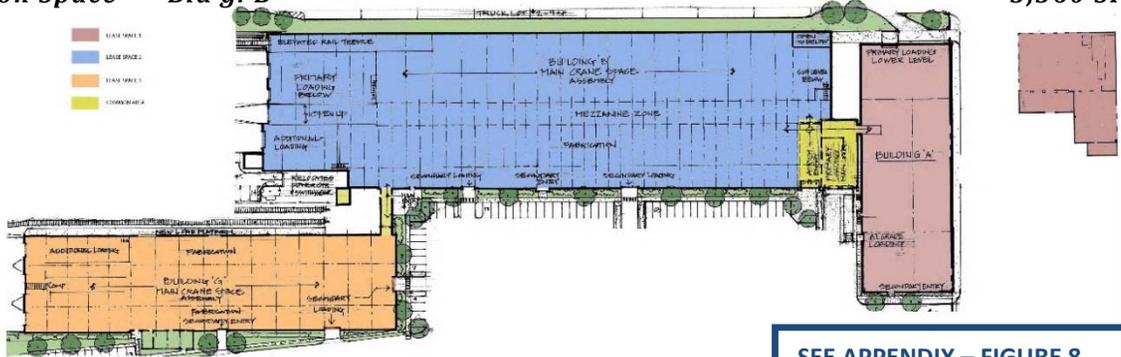
Footprint Area	<i>Existing - 51,125 SF</i>	<i>Proposed - 51,125 SF</i>
Roof Area	<i>Existing - 80,000 SF</i>	<i>Proposed - 80,000 SF</i>
Wall Area	<i>Existing - 23,108 SF</i>	<i>Proposed - 23,108 SF</i>
Fenestration Area	<i>Existing - 4,980 SF</i>	<i>Proposed - 4,980 SF</i>
Eave Height	<i>Existing - 42'-0" & 18'-0" AFF</i>	<i>Proposed - 42'-0" & 18'-0"</i>
Ridge Height	<i>Existing - 57'-0" & 34'-0" AFF</i>	<i>Proposed - 57'-0" & 34'-0"</i>
Clear Height	<i>Existing - 42'-0" & 20'-0" AFF</i>	<i>Proposed - 42'-0" & 20'-0"</i>

• SUBDIVIDED INDUSTRIAL SPACE OPTIONS

The following are preliminary layouts subject to further refinement in subsequent development phases:

- Option No 1 – Three Lease Spaces Plus Common Entrance:

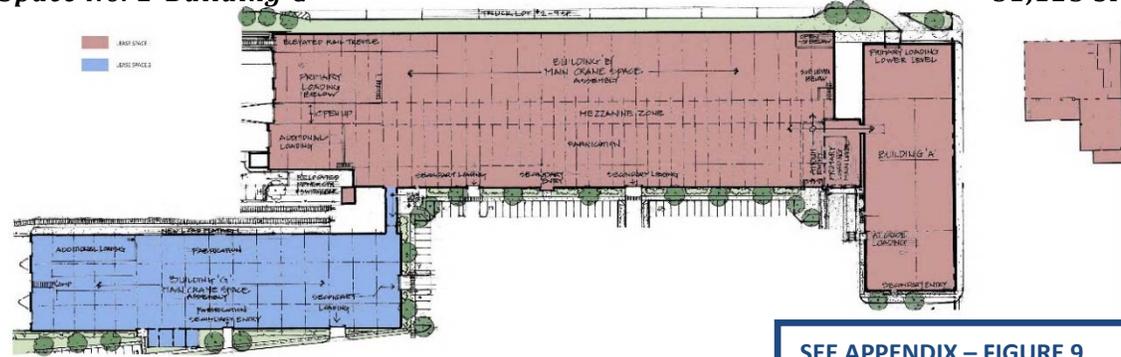
Lease Space No. 1- Bld'g. A	30,450 SF + 11,269 SF Bsm't.=	41,719 SF
Lease Space No. 2- Bld'g.B	102,140 SF+15,900 SF Mezz.+3,600 SF Bsm't.=	121,640 SF
Lease Space No. 3- Bld.g G		51,125 SF
Common Space - Bld'g. B		3,360 SF



SEE APPENDIX – FIGURE 8

- Option No 2 – Two Lease Spaces:

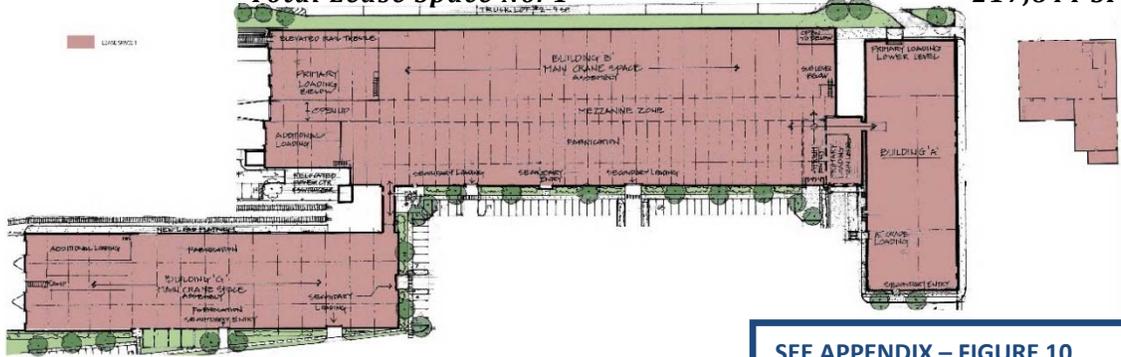
Lease Space No. 1- Bld'g. A	30,450 SF+11,269 SF Bsm't.=	41,719 SF
- Bld'g. B	105,500 SF+15,900 SF Mezz.+3,600 SF Bsm't.=	125,000 SF
Total Lease Space No. 1		166,719 SF
Lease Space No. 2-Building G		51,125 SF



SEE APPENDIX – FIGURE 9

- Option No. 3 - One Lease Space:

Lease Space No. 1- Bld'g. A	30,450 SF +11,269 SF Bsm't.=	41,719 SF
- Bld'g. B	105,500 SF+15,900 SF Mezz. +3,600Bsm't. =	125,000 SF
- Bld'g. G		51,125 SF
Total Lease Space No. 1		217,844 SF



SEE APPENDIX – FIGURE 10

Estimates of Probable Cost

Following is an opinion of probable costs for selective demolition, structural stabilization, thermal envelope improvements, utility services and on-site work. The **\$22.7MM** cost is approximate, assumes Open Shop pricing, does not include land cost, right-of-way rail and off site bridge work . Please note that if costs for individual items are to be extracted from the spreadsheet below, the contingency, estimating and general conditions items should be added in individually.

PROJECT COST METRICS

Demolition & Site Costs

Component:	Item:	Quantity:	Unit:	\$/Unit	Cost:	Subtotal Cost:	Total Costs:
Site	Pavement	1,200	SY	\$10.25	\$12,300		
	Site Clearing	13	AC	\$5,000.00	\$65,000		
Buildings	Building A - Selective	41,719	SF	\$2.50	\$104,298		
	Building B - Selective	125,000	SF	\$2.50	\$312,500		
	Building G - Selective	51,125	SF	\$2.50	\$127,813		
	Building C - Total	576,000	CF	\$0.25	\$144,000	<i>Assumes Credit for Steel, Wood & Mas</i>	
	Building D - Total	275,000	CF	\$0.25	\$68,750	<i>Assumes Credit for Steel, Wood & Mas</i>	
	Building E - Total	75,000	CF	\$0.25	\$18,750	<i>Assumes Credit for Steel, Wood & Mas</i>	
	Building F - Total	155,000	CF	\$0.25	\$38,750	<i>Assumes Credit for Steel, Wood & Mas</i>	
	Appurtenances	200,000	CF	\$0.10	\$20,000	<i>Assumes Credit for Steel, Wood & Mas</i>	
Subtotal:	<i>Labor Rates based on Prevailing Wage Adjusted for Allentown</i>					\$912,160	
10% Estimating Variance						\$91,216	
DEMOLITION COSTS:							\$1,003,376
Site	Site Work	5	AC	\$50,000.00	\$250,000		
	Parking	312	Car	\$1,500.00	\$468,000		
	Roadwork	2,500	LF	\$175.00	\$437,500	<i>Reduced Trailer Spaces by 50%</i>	
	HD Paved Areas	300	SY	\$50.00	\$15,000		
	Curbing	5,000	LF	\$10.00	\$50,000		
	Fencing	4,000	LF	\$35.00	\$70,000	<i>Reduced with Bike Trail by others</i>	
	Bike Trail	10,000	SF	\$2.00	\$0	<i>Bike Trail under Separate Funding</i>	
	Landscape	1	LS	\$100,000.00	\$100,000	<i>Reduced Landscape Buffer @ Bike Trail</i>	
	Rail Spur/Trestle	3,500	LF	\$100.00	\$350,000	<i>Retail if included in Proforma</i>	
	Electric Secondary	2,000	LF	\$56.00	\$140,700	<i>Plus Connection Power Feed</i>	
	Water Service	1,000	LF	\$75.00	\$75,000		
	Sanitary	2,500	LF	\$25.00	\$62,500		
	Stormwater	2,500	LF	\$75.00	\$187,500		
	Gas Service	1,500	LF	\$42.00	\$63,000		
Subtotal:	<i>Labor Rates based on Prevailing Wage Adjusted for Allentown</i>					\$2,269,200	
10% Estimating Variance						\$226,920	
SITE COSTS:				\$130,006	Per Acre		\$2,496,120

Buildings A, B, G, & Total Costs

Component:	Item:	Quantity:	Unit:	\$/Unit	Cost:	Subtotal Cost:	Total Costs:	
Building A	Floorplate Prep	41,719	SF	\$1.25	\$52,149			
	Floorplate Infill	2,000	SF	\$25.00	\$50,000			
	Roof Systems & Insul	46,150	SF	\$20.00	\$923,000			
	Restore/Themal	12,224	SF	\$20.00	\$244,480			
	Fenestrations	3,380	SF	\$35.00	\$118,300			
	Mechanical	41,719	SF	\$4.00	\$166,876			
	Electrical - Power	41,719	SF	\$1.00	\$41,719			
	Electrical -Lighting	41,719	SF	\$9.00	\$375,471			
	Plumbing	41,719	SF	\$3.00	\$125,157			
	Fire Protection	41,719	SF	\$3.00	\$125,157			
	Communications	41,719	SF	\$0.05	\$2,086	Hub Only		
	Subtotal:	<i>Labor Rates based on Prevailing Wage Adjusted for Allentown</i>						\$2,224,395
	10% Estimating Variance							\$222,439
BUILDING A COSTS				\$ 58.65	Per SF		\$2,446,834	
Building B	Floorplate Prep	125,000	SF	\$1.25	\$156,250			
	Floorplate Infill	8,000	SF	\$25.00	\$200,000			
	Roof Systems & Insul	175,000	SF	\$20.00	\$3,500,000			
	Restore/Themal	79,376	SF	\$20.00	\$1,587,520			
	Fenestrations	18,508	SF	\$35.00	\$647,780			
	Mechanical	125,000	SF	\$4.00	\$500,000			
	Electrical - Power	125,000	SF	\$1.00	\$125,000			
	Electrical -Lighting	125,000	Sf	\$9.00	\$1,125,000			
	Plumbing	125,000	SF	\$1.50	\$187,500			
	Fire Protection	125,000	SF	\$3.00	\$375,000			
	Communications	125,000	SF	\$0.05	\$6,250	Hub Only		
	Subtotal:	<i>Labor Rates based on Prevailing Wage Adjusted for Allentown</i>						\$8,410,300
	10% Estimating Variance							\$841,030
BUILDING B COSTS				\$ 74.01	Per SF		\$9,251,330	
Building G	Floorplate Prep	51,125	SF	\$1.25	\$63,906			
	Floorplate Infill	2,000	SF	\$25.00	\$50,000			
	Roof Systems & Insul	80,000	SF	\$20.00	\$1,600,000			
	Restore/Themal	23,108	SF	\$20.00	\$462,160			
	Fenestrations	4,980	SF	\$35.00	\$174,300			
	Mechanical	51,125	SF	\$4.00	\$204,500			
	Electrical - Power	51,125	SF	\$1.00	\$51,125			
	Electrical -Lighting	51,125	SF	\$9.00	\$460,125			
	Plumbing	51,125	SF	\$3.00	\$153,375			
	Fire Protection	51,125	SF	\$3.00	\$153,375			
	Communications	51,125	SF	\$0.05	\$2,556	Hub Only		
	Subtotal:	<i>Labor Rates based on Prevailing Wage Adjusted for Allentown</i>						\$3,375,423
	10% Estimating Variance							\$337,542
BUILDING G COSTS				\$ 72.63	Per SF		\$3,712,965	
Combined Costs							\$18,910,625	
General Conditions @ 10%							\$1,891,062	
10% Contingency							\$2,080,169	
TOTAL AREA, \$/SF & COSTS		217,844	SF	\$ 105.04	Per SF		\$22,881,856	

PROJECT COST METRICS – BY PHASE

Category:	Component:	Item:	Phase I - Building G	Phase II - Building A	Phase III - Building B	
DEMOLITION	Site	Pavement	\$ 10,000	\$ 2,000	\$ 6,000	
		Site Clearing	\$ 30,000	\$ 10,000	\$ 25,000	
	Buildings	Building A - Selective			\$ 104,298	
		Building B - Selective				\$ 312,500
		Building G - Selective	\$ 127,813			
		Building C - Total		\$ -	\$ 144,000	
		Building D - Total		\$ -	\$ 68,750	
		Building E - Total		\$ -	\$ 18,750	
		Building F - Total		\$ -	\$ 38,750	
	Appurtenances	\$ 7,500	\$ 2,500	\$ 10,000		
	Subtotal:		\$ 175,313	\$ 118,798	\$ 623,750	
	10% Estimating Variance		\$ 17,531	\$ 11,880	\$ 62,375	
	DEMOLITION COSTS:		\$ 192,844	\$ 130,678	\$ 686,125	
	SITE	Site	Site Work	\$ 100,000	\$ 50,000	\$ 100,000
Parking			\$ 100,000	\$ 68,000	\$ 300,000	
Roadwork			\$ 100,000	\$ 37,500	\$ 300,000	
HD Paved Areas			\$ 5,000	\$ 5,000	\$ 5,000	
Curbing			\$ 10,000	\$ 7,500	\$ 20,000	
Fencing			\$ 10,000	\$ 15,000	\$ 45,000	
Bike Trail						
Landscape			\$ 20,000	\$ 10,000	\$ 70,000	
Rail Spur/Trestle			\$ 150,000	\$ -	\$ 200,000	
Electric Secondary			\$ 40,000	\$ 5,000	\$ 5,000	
Water Service			\$ 50,000	\$ 15,000	\$ 10,000	
Sanitary			\$ 40,000	\$ 10,000	\$ 12,500	
Stormwater			\$ 62,500	\$ 62,500	\$ 62,500	
Gas Service			\$ 20,000	\$ 5,000	\$ 5,000	
Subtotal:				\$ 707,500	\$ 290,500	\$ 1,135,000
10% Estimating Variance				\$ 70,750	\$ 29,050	\$ 113,500
SITE COSTS:				\$ 778,250	\$ 319,550	\$ 1,248,500
BUILDINGS			Building A	Floorplate Prep		
	Floorplate Infill					
	Roof Systems & Insul					
	Mas.Walls-Restore/Thermal					
	Fenestrations					
	Mechanical					
	Electrical - Power					
	Electrical -Lighting					
	Plumbing					
	Fire Protection					
	Communications					
	Subtotal:			\$ -	\$ 2,224,395	\$ -
10% Estimating Variance		\$ -	\$ 222,439	\$ -		
BUILDING A COSTS		\$ -	\$ 2,446,834	\$ -		
BUILDINGS	Building B	Floorplate Prep				
		Floorplate Infill				
		Roof Systems & Insul				
		Mas.Walls-Restore/Thermal				
		Fenestrations				
		Mechanical				
		Electrical - Power				
		Electrical -Lighting				
		Plumbing				
		Fire Protection				
		Communications				
		Subtotal:		\$ -	\$ -	\$ 8,410,300
10% Estimating Variance		\$ -	\$ -	\$ 841,030		
BUILDING B COSTS		\$ -	\$ -	\$ 9,251,330		
BUILDINGS	Building G	Floorplate Prep				
		Floorplate Infill				
		Roof Systems & Insul				
		Mas.Walls-Restore/Thermal				
		Fenestrations				
		Mechanical				
		Electrical - Power				
		Electrical -Lighting				
		Plumbing				
		Fire Protection				
		Communications				
		Subtotal:		\$ 3,375,423	\$ -	\$ -
10% Estimating Variance		\$ 337,542	\$ -	\$ -		
BUILDING G COSTS		\$ 3,712,965	\$ -	\$ -		
TOTALS:	Combined Costs		\$ 4,684,059	\$ 2,897,062	\$ 11,185,955	
	General Conditions @ 10%		\$ 468,406	\$ 289,706	\$ 1,118,596	
	10% Contingency		\$ 515,246	\$ 318,677	\$ 1,230,455	
	TOTAL AREA, \$/SF & COSTS		\$ 5,667,711	\$ 3,505,445	\$ 13,535,006	
		\$ 110.86	\$ 84.03	\$ 108.28		

Industrial Real Estate Market Analysis

The following Industrial Real Estate Market Analysis is an excerpt from Allentown's Re-Industrialization Strategy, which was completed in 2013. The full Re-Industrialization Strategy contains a detailed analysis of the City's economy, workforce, entrepreneurial ecosystem, industrial properties, and other aspects of the economic development environment, all of which contributed to the formulation of the redevelopment strategy for the Metal Works property.

The purpose of the Industrial Real Estate Market Analysis is to identify current demand for land and structures for industrial use and highlight where opportunities exist to promote market-feasible industrial development and redevelopment within the City of Allentown.

Greater Philadelphia Industrial Market Trends

From a regional real estate perspective, Allentown is located in the Greater Philadelphia industrial market, which includes Eastern Pennsylvania, Southern New Jersey, and Delaware. National real estate companies Colliers International, Cushman & Wakefield, and CB Richard Ellis, project an increasingly positive outlook for the Greater Philadelphia industrial market in 2013: healthy absorption, decreased vacancy, and built-to-suite construction.

The Greater Philadelphia market gained a healthier supply-demand balance during the first half of 2013 and absorption was at its highest 6-month level since 2006. Sub-markets that account for the largest share of absorption include the Lehigh Valley, I-81/I-83 Corridor, and Northeast Pennsylvania. There are over 20 million square feet of users actively in the market that could tighten vacancy rates.

Industrial requirements are becoming more specialized in order to achieve operational efficient and cost savings. Buildings with low ceiling heights, insufficient loading, or structural challenges will have an increasingly difficult time finding tenants. Signing rents have been rising and landlords feeling greater confidence are becoming more willing to make upgrades to close deals such as loading and lighting improvements.

With limited supply available - particularly for specialty manufacturing and flex-warehouse - existing companies are more frequently contemplating build-to-suit projects. This is driving many developers to transition from building on spec to preparing shovel-ready sites. The increased industrial demand in the market has driven up land prices and the total cost of construction.

E-commerce, specialty manufacturing, food/beverage, and medical/pharmaceutical products and services are expected to be the most active sectors in the regional market through 2013.



Greater Philadelphia Real Estate Market

Lehigh Valley Real Estate Market

Only 95 miles to New York City and 53 miles from Philadelphia, the Lehigh Valley is an attractive area for importers, exporters, manufacturers, and high-tech companies.

The following table summarizes the industrial real estate market for the Lehigh Valley based on data from national real estate firms CB Richard Ellis (CBRE), Cushman & Wakefield (C&W), Colliers International (Colliers) and a firm based in Allentown, PA, NAI Summit.¹ In the Lehigh Valley industrial real estate market there is about 58-million square feet of industrial property; roughly 4.9-million square feet of which is on the market or “available”. The 8.4% vacancy rate is down about 1% from 2012 indicating that this market is tightening. Reported lease rates varied between the data, but average to about \$4.30 per square foot.

Industry Real Estate Market Report Summary: Lehigh Valley - Q1 2013					
Measure	NAI Summit	CBRE	C&W	Colliers	Average
Inventory (sf)	56,801,599	60,419,586	54,275,869	62,092,202	58,397,314
Available (sf)	4,544,128	5,756,994	4,559,173	4,781,100	4,910,349
Vacancy Rate	8.0%	9.5%	8.4%	7.7%	8.4%
Net Absorption (sf)	N/A	N/A	915,000	613,152	764,076
Lease Rates (sf)	\$3.99	\$4.35	\$4.15	\$4.59	\$4.27

Source: Market reports from real estate firms.

Note: Different methodologies for tracking real estate indicators account for variations in data.

Note: Rates in the above table include rail-served and non-rail properties, they market reports do not distinguish between the two.

As with the greater Philadelphia market, there is a limited supply of quality space, particularly for warehouse users looking for 50,000 to 100,000 square feet.

Industries that typically occupy industrial properties include Manufacturing, Extraction, Wholesale; and Transportation and Warehousing industries.² Of these, Wholesale Trade and Transportation and Warehousing are projected to grow considerably in the coming years in both the Allentown ZIP code region and the Lehigh Valley.

The projected employment increase in industrial space utilizing previously noted most active industry sectors can be used to estimate the increase in demand for industrial space in the Lehigh Valley. Currently, these four sectors represent almost 60,000 jobs in Lehigh Valley and, as noted above, there is approximately 53.5-million square feet of occupied industrial space. Therefore, on average each job requires roughly 892 square feet. Assuming the projected 4,700 new jobs will have similar space requirements; the new jobs will require approximately 4.2-million square feet of space over a 10-year period. There is about 4.9-million square feet of space available on the market today yet the quality of many older properties and their ability to meet specialized needs of individual users suggests there is not enough supply to satisfy projected demand.

¹ Since different firms employ different methodologies for collecting and reporting real estate information, an average is shown.

² We note that there are several sub-sectors that sometimes occupy industrial space such as research and development sectors; however, it is highly varied.

Trends in Industrial Space Users					
Allentown Zip Codes					
NAICS	Description	2013 Jobs	2023 Jobs	Change	% Change
21	Mining, Quarrying, and Oil and Gas Extraction	50	70	20	40.0%
31	Manufacturing	6,450	6,405	-45	-0.7%
42	Wholesale Trade	3,865	4,110	245	6.3%
48	Transportation & Warehousing	2,041	2,207	166	8.1%
	Total	12,406	12,792	386	3.1%
Lehigh Valley					
NAICS	Description	2013 Jobs	2023 Jobs	Change	% Change
21	Mining, Quarrying, and Oil and Gas Extraction	388	490	102	26.3%
31	Manufacturing	30,836	31,042	206	0.7%
42	Wholesale Trade	11,740	13,152	1,412	12.0%
48	Transportation & Warehousing	17,003	20,014	3,011	17.7%
	Total	59,967	64,698	4,731	7.9%

Source: EMSI

The projected growth is within industries that are transportation and distribution-oriented and tend to occupy warehouse and flex space that is found in suburban areas as opposed to urban cores. One important driver in the uptick in the warehouse market activity in this region is the widening of the Panama Canal, which will allow larger cargo ships to pass through. Related to this expansion, the Port of New York and New Jersey is investigating an opportunity to open an inland rail port in Bethlehem, off of Route 412. Investigations are being conducted into the level of demand for such an amenity in the region.

3

Allentown Real Estate Market

According to real estate professionals interviewed for the Allentown Re-Industrialization Strategy, the greatest demand for space by unit size in the region is 8,000 square feet or less and 20,000 to 40,000 square feet up to 80,000 square feet. Multi-story buildings are not attractive to most tenants as modern manufacturing processes generally require high ceilings. As such, 18-20 foot ceilings are highly sought after. Rail is a “nice marketing feature” for properties that have existing spurs but not essential and several individuals commented that it is not worth investing in. This is because if a user is specifically looking for rail access they will go straight to Bethlehem, which has existing rail infrastructure.⁴ Manufacturers that require rail are typically shipping heavy, bulky components in large volumes.

To understand the industrial property supply that is being actively marketed, information was obtained from PASiteSearch.com. According to this database, there are currently 26 industrial building-sites available in the City of Allentown; 19 available for sale, 22 for lease. In total, there is 1.6 million square feet of industrial space on the market currently in Allentown. Nine of the available properties are 8,000 square feet and below and eight are in the 20,000-80,000 square feet “sweet spot”.

³ Bethlehem being considered for inland rail port. June 5, 2013, Lehigh Valley Live.

http://www.lehighvalleylive.com/bethlehem/index.ssf/2013/06/bethlehem_being_considered_for.html

⁴ Note: None of the manufacturing businesses interviewed for this study used rail as a method of transporting goods.

Industrial Property Supply, City of Allentown					
Address	Min Size	Max Size	For Sale	For Lease	Lot Size
1130-1132 Godfry St.	2,770	2,770	yes	yes	0 acres
1427 E Pennsylvania St	1	4,000		yes	
709 East Congress St	4,000	4,000	yes	yes	0 acres
905 Harrison Street	1	4,047		yes	2.45 acres
460 Business Park Ln	6,225	6,225	yes	yes	0 acres
515 Business Park Ln	6,546	6,546	yes	yes	.49 acres
460 Business Park Ln	6,925	6,925	yes	yes	.48 acres
2830 Mitchell Ave	1	7,840		yes	
312 Sumner Ave	8,000	8,000		yes	
526 Aubrey St	10,500	10,500	yes		1.55 AC acres
1130 Hanover Ave	15,400	15,400	yes	yes	
713 N 13th St	19,200	19,200	yes		
1417 W Chew St	1	21,774	yes	yes	
430 Allentown Dr	1	25,689		yes	
1139 Sumner Ave	1	30,000	yes	yes	
700 N Fenwick St	1	38,889	yes	yes	
1324 N Sherman St	1	44,000	yes	yes	
314 N 12th St	48,000	48,000	yes		
1220 W Allen St	1	53,966	yes	yes	
1135 N Plymouth St	84,590	84,590	yes		
2027 S 12th St	1	106,000		yes	
1901 South 12th Street	130,000	130,000	yes	yes	8 acres
2200 S. 12th Street	203,000	203,000	yes	yes	22 acres
2027 S 12th St	1	225,000		yes	
1629 - 1915 South 12th St	260,000	260,000	yes	yes	12 acres
2645 Mitchell Ave	1	273,000	yes	yes	
	805,168	1,639,361			

Source: PASiteSearch.com

Almost every business interviewed for this project indicated they are growing and have plans for expansion within the next 5-10 years. Several are actively in the market now and expressed concerns over the lack of suitable space in the city.

Who is Allentown’s Target Market?

Based on the market research and data analysis, characteristics of the target market for urban industrial properties in Allentown include manufacturers looking for:

- Space below market rate, low-cost everything
- Direct access to a dense labor market, walk-to-work environment
- Re-use opportunities instead of building on green space
- Businesses or developers willing to take on a “project” and invest in upgrades to a property
- Expansion opportunities locally
- Greater access to supply chains to better serve on-demand markets
- Commitment to urban experience and benefits of city diversity, services, and amenities

Life Stage

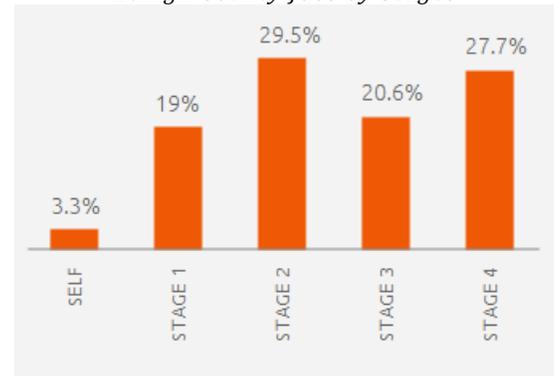
The target market, particularly in the short-term, is not those businesses in the startup phase. They are not in the market for investing in large chunks of building space. The ideal manufacturers are either second stage companies or mature companies looking to expand/relocate in/to Allentown.

Second stage companies are typically 10 to 99 employees in size. They are beginning to exceed the size in which the owner or CEO can comfortably manage the company yet they typically do not yet have a complete professional management team. Most businesses begin to enter their second stage when they approach about \$1 million in total receipts.⁵

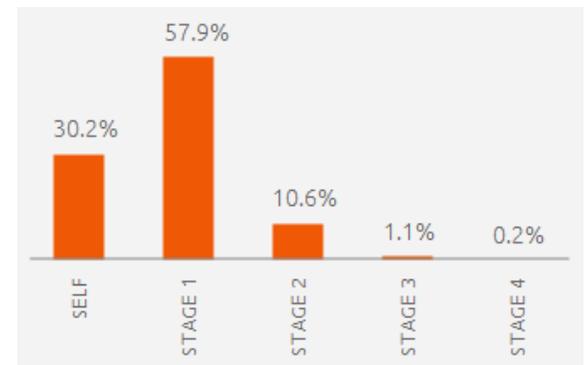
In Lehigh County, almost 30% of the workforce or 72,000 jobs are at companies in stage 2 (note that this is all jobs, not specific to the manufacturing sector). There are about 2,800 stage 2 companies in Lehigh County, which represents 10.6% of the total number of establishments (all 2012 data). For additional information on second-stage companies, the role in which they play in a local economy, and the new challenges they face as they enter the second stage, visit YourEconomy.org and the Edward Lowe Foundation (<http://edwardlowe.org/>).

Second stage and mature companies often have different reasons for being in the real estate market. Second stage companies are typically looking for space because they are outgrowing their current space and looking to expand locally to retain their existing workforce, suppliers, and market position. During the interviews for this project, we spoke with several business in this situation. Supporting and retaining these businesses requires an economic gardening approach.

Lehigh County Jobs by Stages



Lehigh County Establishments by Stages



⁵ Edward Lowe Foundation: <http://edwardlowe.org/who-we-serve/secondstage/>

On the other hand, mature – third and fourth stage – businesses are more likely to expand into a new area to gain better access to markets, supply chains, laborforce, and other competitive advantages. Business attraction strategies, supported by a strong, consistent web and social media presence, are needed to attract these companies. Understanding Allentown’s role in regional supply chains will strengthen and focus attraction efforts.

Targeted Geographies

One important market opportunity for Allentown, from a geographic perspective, is manufacturing businesses in North Jersey looking to expand. North Jersey is more expensive, more congested, and has less room for growth than Allentown. Allentown offers space for a much lower price point yet direct access to the same regional market, with a reverse commute. Additionally, North Jersey’s workforce is diverse with large immigrant and non-English speaking populations much like Allentown’s. These companies have experience hiring in culturally diverse labor pools and understand the value of live-work environments. There is growing interest by North Jersey companies in the Lehigh Valley and several manufacturers from New Jersey have and/or are planning on moving into the suburban industrial areas around Allentown.

Targeted Sectors

As discussed in detail in other sections of this report, focusing on manufacturing overall instead of selecting a few sub-subsectors is recommended, starting outreach efforts with sectors that have had recent success in the city or region. These include:

- Fabricated Metal
- Food
- Machinery
- Plastics and Rubber
- Surgical and Medical Instrument
- Electrical Equipment

DEVELOPMENT COMMUNITY INTERVIEWS

During the development of the Allentown Re-Industrialization Strategy (Phase I of this project), Camoin Associates interviewed several developers, property managers, and real estate professionals that work in the Allentown and Lehigh Valley industrial market. This first round of interviews, conducted in the summer of 2013, provided the project team first-hand insight into trends in the regional real estate market. The Industrial Real Estate Market Analysis section of this report contains information obtained during the first round of interviews.

Roughly a year later, Camoin Associates conducted a second round of interviews with representatives from the Lehigh Valley real estate and economic development community to focus on price points and redevelopment opportunities specific to the Metal Works site. Information obtained during these discussions contributed to the development of this site-specific market and feasibility analysis. The following themes emerged during the interviews conducted for the Metal Works property.

Rail is a significant advantage.

There is a scarcity of industrial properties with rail access in the City of Allentown and greater Lehigh Valley region. Rail-served properties are growing in attractiveness; they “do very well”. If rail service is re-established for Metal Works, that would be a differentiating factor for the property. Additional information on the potential of providing rail to the site is provided in the following section of this report.

Re-use vs. New Development

About half of those interviewed lean toward re-use of existing buildings while others indicated complete demolition and re-build would be their approach. Ultimately, there are potential opportunities for both re-use and new development options and the development priorities will steer the approach.

Cleanup is key.

Even though the development community has a difference of opinion on specific development opportunities for the Metal Works site, there is agreement that the biggest hurdle to redevelopment to date has been uncertainty related to environmental concerns. Many were enthusiastic to hear that AEDC is working to address those concerns and remove that layer of uncertainty about the property. Once the site cleanup is complete, it is clear that it will be very attractive to the development community.

Metal Works is unique.

The development community was unable to provide comparable properties or projects in the Lehigh Valley similar to Metal Works. With its urban location and existing layout, Metal Works is a unique property. The Bethlehem Steel site was mentioned several times because both sites are brownfields; however, the Bethlehem Steel project is a large-scale mixed-use redevelopment project spanning more than 1,000 acres. With the intermodal rail, Fortune 500 companies that serve national and international markets will occupy newly developed warehouse and distribution space at the Bethlehem Steel site.

Suited for industrial use.

The site should be positioned for manufacturing, which will add more value than trying to position it for warehouse/distribution. The layout of the site and its location within the urban core of the City make it a challenging site for warehouse and distribution uses and it would likely not be able to attract a tenant serving national/international markets. Flex space could do very well serving the regional markets (Lehigh Valley, Eastern PA, Southern NJ, and Delaware).

Increasing market demand for spaces under 100,000 square feet.

Following the recession of 2008, there was very little activity in the market for anything 10,000 square feet to 60,000 square feet. Starting in 2013, the demand for space in this range has been increasing and there are almost no options for users in this market. However, developers are not building anything on speculation under 100,000 SF because lease rates continue to be low, providing a low return on investment compared to larger-scale projects. These trends are contributing to growing pent-up demand for industrial space under 100,000 square feet.

Unfamiliar with Allentown’s workforce.

Several interviewees noted that if Allentown’s workforce is sufficient, manufacturing could work at Metal Works. Several of the individuals interviewed for this project noted that they are not as familiar with the skills of the local workforce and unsure if it is capable of meeting the needs of an industrial user at the site.

RAIL SERVICE***Input from the real estate community***

During the first round of interviews for the Allentown Re-Industrialization Strategy (Phase I), the opinion of rail as an asset for economic development in the city was split. We heard from the real estate community that properties that have existing rail spurs do very well and the rail is a great marketing feature. When asked - in general - if making an investment to bring rail service to a property would be a worth-while endeavor, most individuals felt that at the time it would not be a necessary investment because if a user is specifically looking for rail, their top choice will likely be the Bethlehem.

However, as noted above, a year later when the real estate community was engaged regarding the Metal Works property, the general feeling was that reinstating rail service to Metal Works is important. There are very few rail sites in the region and providing rail to Metal Works would open it up to certain rail-dependent industries such as those that require highly controlled environments. Market trends are changing quickly in the region and smaller users that serve regional markets are just now beginning to look for rail properties. Prior to the spring of 2014, only users that serve national and international markets looking for 100,000 square feet and above required rail.

Feasibility of providing rail access to Metal Works

All of the permitting is in-place and AEDC has 90% complete drawings for providing rail to Metal Works. In 2012, AEDC was awarded a \$1.4 million Rail Freight Assistance grant by the State of Pennsylvania through the Rail Transportation Assistance Program. However, a deal with private developers fell through and, without a load generator in-place to utilize the rail, AEDC could not utilize the grant. Since all of the preliminary work was completed and the project is essentially ready to go, once a user is identified it is expected that re-securing the financing will be relatively easy.

Marketing Metal Works for Rail

Metal Works should be marketed as a potentially rail-served property. There are very few rail-served industrial sites on the market, especially in the urban cores, and the demand for smaller rail-served sites is growing. The opportunity of providing rail to the site gives Metal Works a real unique competitive advantage in the market.

COMPETITIVE ANALYSIS: COMPARABLES

When developing the scope of work for the redevelopment strategy, the project team intended to identify similar properties in the region and conduct a detailed competitive analysis. However, shortly after starting the market research, it became very clear that Metals Works is a unique property and there are few good comparables. Therefore, instead of a deep dive into a few properties we took a broader, higher-level approach to identify and understand what types of industrial properties are undergoing development, recently completed, and currently available in the regional industrial market currently and what sets Metal Works apart.

Proposed Projects

LVEDC provided a list of 33 proposed industrial projects in the Lehigh Valley totaling just over 26 million square feet of development. Approximately 14-million square feet of development is proposed in Northampton County and 12-million square feet in Lehigh County. Most of the projects are over 200,000 square feet (7 out of 33) and about 1/3 of the proposed industrial projects in the Lehigh Valley are over 1-million square feet (10 out of 33). Smaller projects of 200,000 square feet and below are primarily industrial/flex space.

Significant Projects under Construction

The following table contains a list of significant projects currently under construction in the Lehigh Valley (list provided by LVEDC). These projects represent about 2.3-million square feet of speculative development, 1.3-million square feet of leased space with tenants and one build-to-suit project totaling 179,000 square feet of space.

Significant Projects - Under Construction in the Lehigh Valley				
Address	Park/Name	Size (SF)	Developer	% Leased
120 Commerce Lane, Palmer Twp.	Chrin Commerce Center	100,000	Becknell Industrial	100% leased to Mondelez
2215 Spillman Dr, Bethlehem	LVIP VII	116,292	J.G. Petrucci Co	Speculative
1185 Feather Way	LVIP VII	179,000	J.G. Petrucci Co.	BTS for Curtiss Wright
4270 Fritch Dr, Bethlehem	LV Trade Port	302,800	Griffin Land	Speculative
Hollo and Van Buren Rd, Palmer Twp	Chrin Commerce Center	425,000	DCT Industrial	Speculative
2485 Commerce Center, Bethlehem	LVIP VII	677,088	Trammell Crow	Speculative
10 Emery Street, Bethlehem	LVIP VII	800,000	Liberty Property Trust	Speculative
3215 Commerce Center, Bethlehem	Majestic Bethlehem Center	1,200,000	Majestic Realty	100% leased to Walmart

Source: LVEDC

Significant Recently Completed Projects

According to the Colliers International 4th quarter market report for the Eastern Pennsylvania - Southern New Jersey - Delaware market region, recent build-to-suit manufacturing projects include Curtiss-Wright, Co-Axe Valves, Bethlehem Sausage Works, and Veyko. The Colliers report noted that the only sub-market where speculative construction has occurred is the Lehigh Valley for the warehouse/distribution sector.

Recently completed projects in the Lehigh Valley are listed in the table below. Overall, these projects have been highly successful with most 100% occupied.

Recent Significant Completed Projects in the Lehigh Valley				
Address	Park/Name	Size (SF)	Developer	% Leased /User
4275 Fritch Drive, Bethlehem	LV Trade Port	228,000	Griffin Land	100% leased to Kuehne + Nagel
105 Boulder Dr., Upper Macungie	Bimbo Bakeries	240,000	(User)	Bimbo Bakeries
2251 Newlins Mil, Palmer	Chrin Commerce Center	281,437	Exeter Property Group	60% leased to Neovia
151 Boulder Dr., Upper Macungie	Ocean Spray	315,000	(User)	Ocean Spray
8018 Quarry Rd, Lower Macungie	Building 200	493,200	Prologis	100% leased to CHEP/ Allen Distribution
3025 Commerce Center	Majestic Bethlehem Center	800,000	Majestic Realty	100% leased to Crayola
9645 West Hills Ct., Weisenberg	West Hills Business Center	980,000	Hillwood	100% leased to NFI
2785 Commerce Center	LVIP VII	1,200,000	Liberty Property Trust	100% leased to Walmart

Source: LVEDC

Sale Comparables

Because Metal Works is such a unique property, it is difficult to identify good comparables. LVEDC provided Camoin Associates with a list of industrial properties over 100,000 square feet sold in the Lehigh Valley since 2012. Most of these are distribution and warehouse properties, only 4 of the 16 sales were manufacturing properties, one of which was the sale of Metal Works to AEDC (606 S 10th St).

As shown in the table below, the price per square foot of even the manufacturing properties alone ranges significantly from \$6.36 to \$63.13 per square foot. The 1991 Northampton Street property in Easton is the most similar to Metal Works considering its age (constructed in 1926) and size of the site.

Sale Comparables						
Address	Type	Class	Acres	Price	Building SF	\$/SF
606 S 10th St (Metal Works)	Manufacturing	C	17.54	\$500,000	260,000	\$1.92
9645 West Hills Ct, Fogelsville	Distribution	A	71.35	\$69,752,642	980,000	\$71.18
8155 Schantz Rd, Breinigsville	Warehouse	C	6.92	\$3,775,000	101,125	\$37.33
7132 Daniels Dr, Allentown	Warehouse	B	18.67	\$12,000,000	289,900	\$41.39
734 Roble Rd, Allentown	Warehouse	B	9.08	\$3,000,000	103,215	\$29.07
6974 Schantz Rd, Allentown	Distribution	C	27.94	\$36,830,000	480,000	\$76.73
636 Pen Argyl St, Pen Argyl	Warehouse	C	1.58	\$800,000	140,000	\$5.71
5001 Crackersport Rd, Allentown	Manufacturing	B	30.19	\$4,650,000	105,000	\$44.29
47 Commerce Way	Warehouse	B	7.3	\$3,500,000	100,790	\$34.73
2655 Broadhead Rd, Bethlehem	Multi-Property		47.22	\$46,732,000	667,600	\$70.00
2834 Schoeneck Rd, Macungie	Distribution	B	30	\$16,550,000	270,000	\$61.30
6755 Snowdrift Rd, Allentown	Manufacturing	B	9.73	\$8,000,000	126,718	\$63.13
7267 Schantz Rd, Allentown	Warehouse	B	11.84	\$5,300,000	152,358	\$34.79
2645 Mitchell Ave, Allentown	Distribution		15.2	\$4,165,000	273,755	\$15.21
1991 Northampton St, Easton	Manufacturing	B	10.6	\$1,685,000	264,800	\$6.36

Source: LVEDC via Gelcor Realty

Price Points

LVEDC provided the following price points using Costar for industrial space 100,000 SF and larger. The data includes both manufacturing and warehouse/distribution spaces.

- Inventory square feet available: 61.6 million
- Lease Rate per square foot: \$4.07 (NNN)
- Sale Price per square foot: \$57
- Capitalization Rate: 7%
- Vacancy Rate: 5.6%

Price points for industrial space provided by the real estate and development professionals interviewed are summarized below. We note that most of the individuals interviewed are working in the Lehigh Valley region on warehouse/distribution projects and not urban manufacturing projects.

- Lease per square foot (NNN): \$2.75 to \$7.50, Average: \$4.70
- Sale per square foot: \$40 to \$60
 - Shell only, no upgrades per square foot: \$10-\$20

Incentives

Metal Works is located in a Keystone Opportunity Zone (KOZ), which is administered by the Lehigh Valley Economic Development Corporation (LVEDC). Businesses that locate in the KOZ can claim a waiver, abatement, or exemption from certain state and local taxes until December 31, 2023.

The site is also located in an Enterprise Zone, making it eligible for grants, tax credits, and priority consideration for other Pennsylvania Department of Community and Economic Development grants and business development loans.

Future public incentives for redevelopment could include Tax Increment Financing (TIF), Local Economic Revitalization Tax Assistance (LERTA), assistance from the State of Pennsylvania, and/or federal assistance via funding from the Environmental Protection Agency (EPA) and/or Economic Development Administration (EDA).

FINANCIAL PRO FORMA

Camoin worked with the project team to prepare a financial feasibility study that utilizes projections on price/rental points, construction and operating costs, and other key economic and financial information developed above and in previous phases of this project. Typically, these financial feasibility studies can then be used to illustrate the developer's potential return on investment should they decide to take on the project. Having the initial work of completing the financial feasibility analysis makes the project more predictable and attractive to developers, making them more likely to consider the investment. Additionally, the financial feasibility analysis can help to identify potential funding gaps.

Overview of Financial Feasibility Tests

When considering the financial feasibility of a project, it must be examined from the perspective of all stakeholders, which generally includes the bank (source of financing), developer (source of risk equity), and public agency (potential source of public assistance).

Bank: The debt service coverage ratio (DSCR) is a measure of the resources available to pay debt service (calculated as the ratio of net operating income to debt service payments). Typically, banks like to see a ratio of at least 1.25.

Developer (AEDC): The internal rate of return (IRR) is a formula used to calculate the rate of return for investments that create different amounts of annual cash flow. It is a good measure of the developer's return-on-investment for undertaking a project (on a pre-tax basis only). Depending on the risk profile of a project, the minimum benchmark IRR will change. Typically, a benchmark of 15% is the minimum IRR a private investor will accept. [Note that, for a public entity like AEDC, an IRR of zero is essentially a public investment of a zero-percent loan. Presumably, the public goal of job creation for a project such as Metal Works outweighs the desire for a financial return on investment.]

Public Investment: Public involvement and assistance is often a key factor in successful redevelopment projects as public investment helps to close the funding gap. Public investment into the Metal Works property includes site acquisition (\$484,000) and environmental remediation (\$365,000). Note that the environmental remediation costs will be repaid upon redevelopment of the site (Phase I of the model described below).

Modeling Redevelopment of Metal Works

The financial feasibility analysis of the Metal Works site went through several iterations. The team originally modeled a full-build out scenario in which the entire site is redeveloped over a 5-year period. The funding gap under this aggressive build out of the property was over \$10 million. Recognizing that a slower, more conservative approach is needed, the team decided to separate the project into three phases and model each phase cumulatively. In the first phase, Building G is redeveloped as a pilot project to test the market (Scenario 1). In Scenario 2, Buildings G and A are redeveloped in two phases. Scenario 3 shows 3-phases and includes redevelopment of Buildings G, A & B in years 1, 4, and 7 respectively.

Assumptions that apply to all scenarios include:

- Construction Costs – Bergmann Associates provided construction costs for redevelopment of the site, including demolition and site work.
- Industrial Lease Rates – Based on the market analysis, the estimated triple net lease rates are

\$5.00 PSF for buildings G and B and \$4.00 PSF for building A. These rates are slightly higher than comparable market-rate leases; however, these rates are considered competitive as the site is in the KOZ and tenants will not be liable for property taxes.

- Lease Terms - A 5-year lease for each space (three spaces) is assumed and those spaces are expected to perform as such (i.e. a 0% vacancy/credit loss assumption initially, followed by 5% vacancy annually in year 8 and thereafter).
- Debt Service Interest Rate – Assumed 5.5%, but this is only likely if interest rates continue to be abnormally low on a historical basis.
- Equity Investment – Assumed 40% of the total project cost for each phase.
- Capitalization Rate – A 7% capitalization rate is assumed (the rate of return based on the expected net operating income the property will generate). This figure is used to calculate sale proceeds.
- The financial modeling is based on subdivision Option No. 1, where a single tenant occupies each building.
- We anticipate the site being marketed as a potentially rail served site. Should tenants require rail, AEDC would work with the tenant(s) to bring rail into the site through grants and public-private financing.
- Environmental cleanup costs (+/- \$365,000) are included in the proforma. AEDC was awarded a zero percent loan from the EPA, which is due to be paid upon resale or redevelopment of the property.
- Once the site is fully occupied, we anticipate that the City will re-evaluate the need for widening the 1-lane bridge to accommodate truck traffic generated by the new Metal Works tenants (currently the bridge is adequate for existing truck loads). City engineers estimate the cost of widening the bridge to allow for 2-way traffic is approximately \$4.5 million. Should it be necessary to widen the bridge, the City would bond for the project. It is not included in the pro forma model.
- Site acquisition costs (\$484,000) are not included in the financial model as AEDC already owns the property. These are considered part of the “public investment” into the project.
- To access certain financing sources, such as funding from the Pennsylvania Industrial Development Authority (PIDA), no single construction-phase of the project can exceed 2-years.

Results of the financial feasibility tests for the three scenarios are summarized below. Please refer to the attachments at the end of this report for the full list of assumptions and pro formas for each scenario.

Scenario 1: Building G Alone

In Scenario 1, Building G is re-developed as a standalone project to test the market for future redevelopment phases of the site. The feasibility tests are as follows:

- **Bank:** Based on the assumptions outlined above with a 40% equity investment, the DSCR is 0.78 in year 2. DSCR increases annually but does not reach the minimum of 1.25. The project is not feasible from a private financing point of view as a financing institution does not see strong enough revenue coming in annually to cover debt payments.

Note: For this scenario to be bankable, the equity contribution needs to be 60% of the site improvement costs or \$3.85 million. It is not realistic to assume a developer would be willing or able to invest that much cash.

- **Developer (AEDC):** Based on the current assumptions for this project, the IRR is zero and, therefore, the project does not pass this risk equity test for a private developer; however, AEDC would recoup their investment in year 15. [As noted above, AEDC's acceptance of such an IRR is a de facto public investment made for non-financial gain and is equivalent to AEDC making a zero percent loan.]
- **Public Investment:** If the public sector were to redevelop the site itself, it would be taking a \$3.85 million risk to redevelop the site and spur job creation. In other words, it is as if they are making a \$3.85 million zero percent loan to redevelop the site.
- **Public-Private Opportunity:** If the public sector were to obtain a \$2.54 million grant to put toward redevelopment of the site, the IRR would reach 15%. At this rate of return, the private sector would likely become interested in the project.

Scenario 2: Building G & A

In Scenario 2, Buildings G is redeveloped in Year 1 and Building A is redeveloped in Year 4. The feasibility tests are as follows:

- **Bank:** The DSCR is 0.78 in year 2. DSCR increases annually but does not reach the minimum of 1.25. The project is not feasible from a private financing point of view as a financing institution does not see strong enough revenue coming in annually to cover debt payments.

Note: For this scenario to be bankable, the equity contribution needs to be 60% of the site improvement costs or \$6.1 million.

- **Developer (AEDC):** Based on the current assumptions for this project, the IRR is 0% and, therefore, the project does not pass this risk equity test for a private developer; however, AEDC would recoup their investment in year 15.
- **Public Investment:** If the public sector were to redevelop the site itself, it would be taking a \$6.1 million risk to redevelop the site and spur job creation. In other words, it is as if they are making a \$6.1 million zero percent loan to redevelop the site.
- **Public-Private Opportunity:** If the public sector were to obtain \$3.8 million in grants to put toward redevelopment of the site (\$2.54 M in Year 1 and \$1.2 M in Year 4), the IRR would reach 15%. At this rate of return, the private sector would likely become interested in the project.

Scenario 3: Building G, A, & B

The third scenario models full buildout of the site starting with Building G in Year 1, Building A in Year 4 and Building B in Year 7. The financial feasibility tests are as follows:

- **Bank:** The DSCR is 0.78 in year 2. DSCR increases annually but does not reach the minimum of 1.25. The project is not feasible from a private financing point of view, as a financing institution does not see strong enough revenue coming in annually to cover debt payments.

Note: For this scenario to be bankable, the equity contribution needs to be 60% of the site improvement costs or \$14.8 million.

- **Developer (AEDC):** Based on the current assumptions for this project, the IRR is -1% and, therefore, the project does not pass this risk equity test for a private developer.
- **Public Investment:** If the public sector were to redevelop the site itself, it would be taking a \$14.8 million risk to redevelop the site and spur job creation. In other words, it is as if they are making a \$14.8 million zero percent loan to redevelop the site.

- **Public-Private Opportunity:** If the public sector were to obtain \$8.24 million in grants to put toward redevelopment of the site (\$2.54 M in Year 1, \$1.2 M in Year 4, and \$4.5 M in Year 7), the IRR would reach 15%. At this rate of return, the private sector would likely become interested in the project.

Note: All of the above are subject to change with adjustments to the assumptions.

ECONOMIC & FISCAL IMPACT ANALYSIS

Camoin Associates conducted an economic and fiscal impact analysis of the “Option 1” redevelopment scenario for the Metal Works site (the “Project” or “Site”), which subdivides the buildings into three leased spaces with a common entrance. The economic impact is estimated for both the construction period as well as for when the Site is occupied by new businesses. The fiscal impact analysis considered the impacts of the project on the fiscal resources of the City of Allentown in terms of tax revenue and changes to variable line items in the City’s budget.

Summary of Findings

The economic impact of the renovation and construction activity associated with preparing the three buildings for occupancy is summarized in the table below. It is expected that there will be a one-time economic impact of 339 jobs (annual full-time equivalent), \$10.7 million in earnings, and \$26.5 million in sales.

One-Time Economic Impact from Construction				
	Phase I	Phase II	Phase III	Total
Jobs	84	52	202	339
Earnings	\$2,658,499	\$1,647,561	\$6,364,682	\$10,670,742
Sales	\$6,597,787	\$4,088,872	\$15,795,690	\$26,482,350

Source: EMSI

The economic impact of the businesses that will occupy the three buildings are presented in the following table. The total jobs impact is expected to range from 73 jobs to 396 jobs. This range is attributable to assumptions made about the number of employees per square footage of building space. The high case is derived from a review of literature sources while the low case comes from measured employment in AEDC’s Enterprise Zone. Total annual earnings will total \$3.8 million to \$21 million and annual sales in the City as a result of the project will range between \$13 million and \$70 million.

Annual Economic Impact from Operations				
	Phase I	Phase II	Phase III	Total
High Case Scenario				
Jobs	100	76	220	396
Earnings	\$6,802,242	\$3,139,935	\$11,093,823	\$21,036,000
Sales	\$24,600,134	\$11,372,049	\$34,179,034	\$70,151,217
Low Case Scenario				
Jobs	19	14	40	73
Earnings	\$1,275,420	\$579,680	\$1,981,040	\$3,836,140
Sales	\$4,612,525	\$2,099,455	\$6,263,174	\$12,975,154

Source: EMSI

The Project will also generate a fiscal impact to the City of Allentown. As shown in the table below, the fiscal impact of the Project is expected to range from a net loss of \$228,909 in the high case scenario to a \$294,359 annual loss to the City in the low case.

Annual Fiscal Impact: City of Allentown				
	Phase I	Phase II	Phase III	Total
High Case Scenario				
Total Revenue	\$ 29,431	\$ 21,060	\$ 66,556	\$ 117,047
Total Expenses	\$ 86,191	\$ 53,416	\$ 206,349	\$ 345,956
Net Change	\$ (56,760)	\$ (32,356)	\$ (139,793)	\$ (228,909)
Low Case Scenario				
Total Revenue	\$ 12,903	\$ 8,499	\$ 30,195	\$ 51,597
Total Expenses	\$ 86,191	\$ 53,416	\$ 206,349	\$ 345,956
Net Change	\$ (73,288)	\$ (44,917)	\$ (176,154)	\$ (294,359)

Note: Includes new Earned Income Tax revenues to the School District

Source: Camoin Associates

Economic Impact

The analysis uses the EMSI economic impact model (www.economicmodeling.com). The EMSI model allows the analyst to break down the spending by NAICS code to get an accurate account of how one dollar spent in a specific industry sector multiplies throughout the local economy (in this case, the City of Allentown). The following sections detail the economic impact of each phase (construction and new business operation) in terms of jobs, earnings, and sales.

CONSTRUCTION IMPACT

Renovation and construction on the site will occur in three phases with a total construction cost of approximately \$22.7 million. The estimated construction spending per phase is summarized below.

Construction Spending	
Phase	Amount
Phase I (Building G)	\$ 5,656,372
Phase II (Building A)	\$ 3,505,445
Phase III (Building B)	\$ 13,541,858
Total	\$ 22,703,675

Source: Camoin Associates

In addition to the direct spending on construction and renovation of the site, there will also be indirect impacts as dollars from the direct impact cycle through the economy. In other words, construction spending will create new jobs beyond workers at the site. Those employees will receive wages, and in turn, spend a portion of those dollars in the local economy for daily needs, housing, and other expenses. A proportion of those dollars are again re-spent in the local economy. The economic impact of construction spending is considered separately for each phase in their corresponding sections.

ON-SITE JOBS

As businesses move into the newly renovated site they will make purchases and hire new employees who themselves will make purchases in the local economy. As these dollars circulate throughout the economy they multiple the economic impact of that initial spending. To calculate the total economic impact of the new on-site businesses, Camoin conducted a literature review to estimate the number of new employees likely to work on-site in each of the three renovated buildings in the “Option 1” redevelopment option based on employee to square feet ratios for the targeted industry sectors.

The following chart shows the results of the literature review. Based on the sources analyzed, we estimate that approximately 638 feet of square feet is equivalent to 1 job. Put another way, there are 1.6 jobs for

every 1,000 square feet.

Square Feet per Job: Literature Review				
	# Estimates	Low	High	Average
Petroleum/Coal/Chemical/Plastic Product Manufacturing	5	463	1,218	754
Fabricated Metal Product Manufacturing	5	500	964	657
Machinery Manufacturing	5	500	860	599
Electrical Equipment and Appliance Manufacturing	5	300	821	534
Food and Beverage Manufacturing	5	500	587	593
General Industrial/Manufacturing	15	457	892	693
Average Sq. Ft. per Job				638
Jobs per 1,000 Sq. Ft.				1.6

Sources: See End Notes

An estimate of square footage per job was also derived from AEDC’s analysis of existing buildings in their Enterprise Zone. This analysis found a ratio of 3,500 square feet per job or 0.29 jobs per 1,000 square feet. We consider this estimate to be a “low case” scenario compared to the estimate of 1.6 jobs per 1,000 square feet calculated above, which we consider to be a “high case” scenario. The job calculations for each of the three phases is presented below for the low and high cases. The total on-site job estimate of all phases added together ranges from 61 to 336 jobs.

On-Site Jobs					
	Square Feet	Jobs per 1,000 Sq. Ft.		Total Jobs	
		Low	High	Low	High
Phase I (Building G)	51,125	0.29	1.6	15	80
Phase II (Building A)	41,719	0.29	1.6	12	65
Phase III (Building B)	121,640	0.29	1.6	35	191
Total	214,484			61	336

Source: Bergmann; Camoin Associates

INDUSTRY SECTORS

To analyze the economic impact of the new jobs for both the high and low scenario, Camoin assigned an industry code (from the list of identified targeted sectors) to each building representing the type of business that could potentially occupy the building. These industries were also selected because they have relatively conservative economic impacts (i.e., multiplier effects) compared to others targeted industry sectors such as food manufacturing, which has a significantly higher multiplier effect and would skew the results higher. The NAICS code (North American Industry Classification System) for industrial building construction is used for the construction impact analysis for all three phases.

Industry Assumptions		
	NAICS Code	Industry
Phase I (Building G)	335999	Electrical Equipment and Component Manufacturing
Phase II (Building A)	327999	Nonmetallic Mineral Product Manufacturing (e.g., masonry)
Phase III (Building B)	332999	Fabricated Metal Product Manufacturing
Construction (All Phases)	236210	Industrial Building Construction

Source: Camoin Associates

PHASE I IMPACT

The first phase consists of the redevelopment of Building G, which is 51,125 square feet of leasable space. The cost to renovate and prepare Building G is estimated to be \$5,656,372. The total economic impact of

Phase I construction is shown in the table below. Note that construction impacts are one-time impacts that are expressed on an annual basis.

Construction Impact: Phase I			
	Direct	Indirect	Total
Jobs	76	8	84
Earnings	\$2,311,737	\$346,761	\$2,658,497
Sales	\$5,656,372	\$941,415	\$6,597,787

Source: EMSI

As calculated in the previous section; Phase I, once complete and fully occupied, will generate between 15 and 80 direct on-site jobs. The total economic impact of those jobs is shown in the table below.

Operations Impact: Phase I			
	Direct	Indirect	Total
High Case Scenario			
Jobs	80	20	100
Earnings	\$5,441,794	\$1,360,448	\$6,802,242
Sales	\$22,117,688	\$2,482,446	\$24,600,134
Low Case Scenario			
Jobs	15	4	19
Earnings	\$1,099,500	\$175,920	\$1,275,420
Sales	\$4,147,067	\$465,459	\$4,612,525

Source: EMSI

PHASE II IMPACT

The second phase consists of the redevelopment of Building A, which is 41,719 square feet of leasable space. The cost to renovate and prepare Building A is estimated to be \$3,505,445. The total economic impact of Phase II construction is shown in the table below. Note that construction impacts are one-time impacts that are expressed on an annual basis.

Construction Impact: Phase II			
	Direct	Indirect	Total
Jobs	47	5	52
Earnings	\$1,432,666	\$214,900	\$1,647,565
Sales	\$3,505,455	\$583,428	\$4,088,883

Source: EMSI

As calculated in the previous section; Phase II, once complete and fully occupied, will generate between 12 and 65 direct on-site jobs. The total economic impact of those jobs is shown in the table below.

Operations Impact: Phase II			
	Direct	Indirect	Total
High Case Scenario			
Jobs	65	11	76
Earnings	\$2,638,601	\$501,334	\$3,139,935
Sales	\$10,007,173	\$1,364,876	\$11,372,049
Low Case Scenario			
Jobs	12	2	14
Earnings	\$487,126	\$92,554	\$579,680
Sales	\$1,847,478	\$251,977	\$2,099,455

Source: EMSI

PHASE III IMPACT

The third phase consists of the redevelopment of Building B, which is 121,640 square feet of leasable space. The cost to renovate and prepare Building B is estimated to be \$13,541,858. The total economic impact of Phase III construction is shown in the table below. Note that construction impacts are one-time impacts that are expressed on an annual basis.

Construction Impact: Phase III			
	Direct	Indirect	Total
Jobs	182	20	202
Earnings	\$5,534,504	\$830,176	\$6,364,679
Sales	\$13,541,858	\$2,253,831	\$15,795,689

Source: EMSI

As calculated in the previous section; Phase III, once complete and fully occupied, will generate between 35 and 191 direct on-site jobs. The total economic impact of those jobs is shown in the table below.

Operations Impact: Phase III			
	Direct	Indirect	Total
High Case Scenario			
Jobs	191	29	220
Earnings	\$10,810,818	\$283,005	\$11,093,823
Sales	\$30,529,008	\$3,650,026	\$34,179,034
Low Case Scenario			
Jobs	35	5	40
Earnings	\$1,737,754	\$243,286	\$1,981,040
Sales	\$5,594,321	\$668,853	\$6,263,174

Source: EMSI

TOTAL ECONOMIC IMPACT

The total economic impact of fully renovating the three buildings for occupation by new tenants is 339 jobs, \$10.7 million in earnings, and \$26.5 million in sales. Again, construction is a one-time impact. These numbers are expressed on a one-year basis. That is, 339 job-years (one job year equals the equivalent of one full-time job for one year) will be generated from construction activities.

Construction Impact: All Phases			
	Direct	Indirect	Total
Jobs	305	34	339
Earnings	\$9,278,906	\$1,391,836	\$10,670,742
Sales	\$22,703,675	\$3,778,675	\$26,482,350

Source: EMSI

When all three buildings are renovated and occupied by new business tenants, the total economic impact is expected to range from between 73 and 396 total job years. Annual earnings are expected to be between \$3.8 million and \$21 million. Annual sales (economic output) will range from \$13 million to \$70 million.

Operations Impact: All Phases			
	Direct	Indirect	Total
High Case Scenario			
Jobs	336	60	396
Earnings	\$18,891,212	\$2,144,788	\$21,036,000
Sales	\$62,653,869	\$7,497,348	\$70,151,217
Low Case Scenario			
Jobs	61	12	73
Earnings	\$3,324,380	\$511,760	\$3,836,140
Sales	\$11,588,865	\$1,386,289	\$12,975,154

Source: EMSI

Fiscal Impacts

The following analysis examines the impacts of the Project on the fiscal resources of the City of Allentown. Using the 2014 budget, each line item from the City’s funds was coded to apply a metric based on the anticipated impact, if any, that the Project will have. Every metric was assigned a factor for each phase of the Project, which is used to calculate the impact of each phase. The methodology for determining each metric is discussed below.

METRIC 1: FIXED COST

Expenses and revenues that will not change as a result of the Project are “fixed” and assigned a factor of zero to reflect no change.

METRIC 2: VARIABLE COST

The variable line items will change as a function of the overall size of the City. Therefore, following standard methodology, we used the increase in assessed value of the City resulting for the Project as a proxy for how the City will “grow.” It is estimated that upon full build-out of the Project, all else held constant, the assessed value for the City will increase by \$22,703,685. This figure represents the construction cost of all three phases. The City assesses property at 100% of actual value for all types of real property.

Change in Assessed Value		
	Pre-Construction	Post-Construction
Existing City AV	\$6,635,703,400	\$6,635,703,400
Change in Site AV	\$0.00	\$22,703,685
Assessed Value Factor		0.34%

To understand the fiscal impacts of each individual phase, we assigned each phase an assessed factor based on the proportion of total construction spent on that phase. The assessed factor for each phase is shown in the table below.

Assessed Value Factor by Phase	
Phase	Factor
Phase I (Building G)	0.09%
Phase II (Building A)	0.05%
Phase III (Building B)	0.20%
Total	0.34%

Source: Camoin Associates

METRIC 3: SPECIAL CASES

Some budget line items can be tied to specifics of the project such as the number of on-site workers and their anticipated earnings. It should be noted that the property and its businesses will not be subject to several taxes. The site will be exempt from property taxes and no property tax revenue from the property is considered in the analysis. The businesses expected to occupy the site will be manufacturing operations and are therefore considered exempt from the City’s Business Privilege Tax. The special cases are calculated in the tables below. A high and low estimate are provided corresponding to the high and low estimates in the economic impact section.

The City will collect a 0.83% tax on earned income from new workers who reside in the city and the School District will collect an additional 0.5% through its Earned Income Tax (EIT). According to the U.S. Census Bureau’s OnTheMap tool, 23.5% of people who work in “Goods Producing” industries within the City of Allentown also live in the City of Allentown. Therefore, we would expect this same proportion of the new workers to live in the City.

The new on-site workers who live in the City will generate an additional \$6,500 to \$37,000 in annual EIT revenue to the City and \$3,900 to \$22,000 to the School District.

Special Case: Earned Income Tax (EIT): High	
Number of Workers	336
% of Workers Living in Allentown	23.5%
Workers Living in Allentown	79
City EIT Rate	0.83%
Direct Earnings	\$4,439,435
New City EIT Revenue	\$36,847
School District EIT Rate	0.5%
New School District EIT Revenue	\$22,197

Special Case: Earned Income Tax (EIT): Low	
Number of Workers	61
% of Workers Living in Allentown	23.5%
Workers Living in Allentown	14
City Earned Income Tax Rate	0.83%
Direct Earnings	\$781,229
New City EIT Revenue	\$6,484
School District EIT Rate	0.5%
New School District EIT Revenue	\$3,906

A fixed amount of \$52 will be taxed by the City to each new worker through the City’s Local Services Tax resulting in new revenue of between \$3,796 and \$20,592 each year.

Special Case: Local Services Tax: High	
Local Service Tax per Worker	\$52
Number of Workers	396
New Local Services Tax Revenue	\$20,592

Special Case: Local Services Tax: Low	
Local Service Tax per Worker	\$52
Number of Workers	73
New Local Services Tax Revenue	\$3,796

SUMMARY VARIABLE REVENUES AND EXPENSES

The following tables summarize general estimates for the new revenues and expenses expected to be generated as a result of the Project. These estimates were made by looking at each line item in the City’s budget and applying a Metric of 1 (no change) or a Metric of 2 (change based on the assessed value factor of 0.34%). The tables below do not include the “Special Cases” (Metric 3 described above).

Summary of Variable Revenues		
Revenue	Existing	Change
General Fund		
Taxes*	\$58,083,000	\$3,531
Permits & Licenses	\$5,318,000	\$13,634
Charges for Services	\$4,287,100	\$14,668
Municipal Recreation	\$1,264,882	\$0
Fines and Forfeits	\$980,000	\$3,353
Intergovernmental Revenue	\$16,461,879	\$0
Other Income	\$3,142,000	\$0
Other Funds		
Liquid Fuels Fund	\$2,185,958	\$0
Trexler Fund	\$1,301,022	\$0
Risk Management Fund	\$15,985,440	\$0
Debt Service Fund	\$8,175,965	\$0
Equipment Fund	\$2,114,556	\$0
Solid Waste Fund	\$18,817,148	\$0
Golf Course Fund	\$1,298,295	\$0
E-911 Fund	\$2,689,300	\$2,224
Total		\$37,410

*Does not include Special Cases

Summary of Variable Expenses		
Expense	Existing	Change
General Fund		
Finance	\$6,317,060	\$0
Public Works	\$6,442,049	\$0
Police	\$28,400,511	\$97,171
Fire	\$17,113,844	\$58,554
Human Resources	\$727,198	\$0
Managing Director	\$2,103,968	\$0
Parks & Recreation	\$4,000,507	\$0
Community Development	\$8,259,008	\$28,258
Other Funds		
Liquid Fuel Fund	\$2,505,150	\$3,205
Trexler Fund	\$1,280,168	\$420
Risk Management Fund	\$18,027,708	\$56,434
Debt Service Fund	\$8,175,965	\$0
Equipment Fund	\$2,533,154	\$8,667
Solid Waste Fund	\$15,171,169	\$44,429
Golf Fund	\$1,430,463	\$0
E911 Fund	\$782,139	\$2,676
Total		\$299,813

Net Fiscal Impact

A summary of the unadjusted totals from the budget tables is provided below for the high and low scenario for each phase. We determined the variable revenue and costs of each phase by applying the assessed value factor for each phase, as discussed previously. We assume that variable budget line revenues and expenses will be the same for both the high and low case scenario. To determine the revenue from each phase from each of three special cases we applied the ratio of the number of jobs created by each phase compared to the total number of jobs created.

The net fiscal impact under the high scenario is a loss of \$183,000 annually. Under the low scenario, it is a net loss of \$248,000 per year.

Fiscal Impact by Phase: High				
	Phase I	Phase II	Phase III	Total
Variable Revenue	\$ 9,320	\$ 5,776	\$ 22,314	\$ 37,410
Earned Income Tax (EIT) - City	\$ 9,305	\$ 7,072	\$ 20,471	\$ 36,847
Earned Income Tax (EIT) - School	\$ 5,605	\$ 4,260	\$ 12,332	\$ 22,197
Local Services Tax	\$ 5,200	\$ 3,952	\$ 11,440	\$ 20,592
Total Revenue	\$ 29,431	\$ 21,060	\$ 66,556	\$ 117,047
Total Expenses	\$ 74,695	\$ 46,291	\$ 178,827	\$ 299,813
Net Change	\$ (45,264)	\$ (25,231)	\$ (112,270)	\$ (182,766)

Source: Camoin Associates

Fiscal Impact by Phase: Low				
	Phase I	Phase II	Phase III	Total
Variable Revenue	\$ 9,320	\$ 5,776	\$ 22,314	\$ 37,410
Earned Income Tax (EIT) - City	\$ 1,637	\$ 1,244	\$ 3,602	\$ 6,484
Earned Income Tax (EIT) - School	\$ 986	\$ 750	\$ 2,170	\$ 3,906
Local Services Tax	\$ 959	\$ 729	\$ 2,109	\$ 3,796
Total Revenue	\$ 12,903	\$ 8,499	\$ 30,195	\$ 51,597
Total Expenses	\$ 74,695	\$ 46,291	\$ 178,827	\$ 299,813
Net Change	\$ (61,792)	\$ (37,792)	\$ (148,632)	\$ (248,216)

Source: Camoin Associates

As noted above, the Allentown Metal Works site is located within the Keystone Opportunity Zone (KOZ). To incentivize redevelopment, the KOZ allows the deferral of real estate and other taxes on the property through December 31, 2023. After this date, the site will be liable for these taxes and the annual fiscal impact to the City and other taxing jurisdictions would likely be positive.

What is Economic Impact Analysis?

The purpose of conducting an economic impact study is to ascertain the total cumulative changes in employment, earnings and output in a given economy due to some initial “change in final demand”. To understand the meaning of “change in final demand”, consider the installation of a new widget manufacturer in Anytown, USA. The widget manufacturer sells \$1 million worth of its widgets per year exclusively to consumers in Canada. Therefore, the annual change in final demand in the United States is \$1 million because dollars are flowing in from outside the United States and are therefore “new” dollars in the economy.

This change in final demand translates into the first round of buying and selling that occurs in an economy. For example, the widget manufacturer must buy its inputs of production (electricity, steel, etc.), must lease or purchase property and pay its workers. This first round is commonly referred to as the “Direct Effects” of the change in final demand and is the basis of additional rounds of buying and selling described below.

To continue this example, the widget manufacturer’s vendors (the supplier of electricity and the supplier of steel) will enjoy additional output (i.e. sales) that will sustain their businesses and cause them to make additional purchases in the economy. The steel producer will need more pig iron and the electric company will purchase additional power from generation entities. In this second round, some of those additional purchases will be made in the US economy and some will “leak out”. What remains will cause a third round (with leakage) and a fourth (and so on) in ever-diminishing rounds of spending. These sets of industry-to-industry purchases are referred to as the “Indirect Effects” of the change in final demand.

Finally, the widget manufacturer has employees who will naturally spend their wages. As with the Indirect Effects, the wages spent will either be for local goods and services or will “leak” out of the economy. The purchases of local goods and services will then stimulate other local economic activity; such effects are referred to as the “Induced Effects” of the change in final demand.

Therefore, the total economic impact resulting from the new widget manufacturer is the initial \$1 million of new money (i.e. Direct Effects) flowing in the US economy, plus the Indirect Effects and the Induced Effects. The ratio between Direct Effects and Total Effects (the sum of Indirect and Induced Effects) is called the “multiplier effect” and is often reported as a dollar-of-impact per dollar-of-change. Therefore, a multiplier of 2.4 means that for every dollar (\$1) of change in final demand, an additional \$1.40 of indirect and induced economic activity occurs for a total of \$2.40.

Literature Sources for the Economic & Fiscal Impact Analysis

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ATTACHMENTS:

Financial Pro Forma Results

FIGURES:

Figure 1: South 10th Street Entrance Perspective

Figure 2: Aerial Perspective

Figure 3: Interior Rendering

Figure 4: Existing Site Plan

Figure 5: Demolition Plan

Figure 6: Proposed Site Circulation

Figure 7: Proposed Site Layout

Figure 8: Proposed Option 1 – Concept Bld'g. Plans

Figure 9: Proposed Option 2 – Concept Bld'g. Plans

Figure 10: Proposed Option 3 – Concept Bld'g. Plans

Figure 11: Envelope Remediation & Renovation