Leadership Development Initiative

Community Impact Project

Stoking the Fire in the Carrie Furnaces

Development of the Homestead Works National Park Incorporating the Carrie Furnaces

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Figure 1: The gantry crane at the Carrie Furnace Site. The Hot Metal Bridge, which is connected to the site (owned by Rivers of Steel) and is a proposed access point, and the Rankin Bridge are seen in the distance. (1)

I. Introduction

Blast furnaces number 6 and 7, majestic formations of steel and brick resting on the shore of the Monongahela River are regal symbols of hope -

- the hope of educators and historians that the story of the steel industry and its complex and rich relationship with the people and entities of Southwestern Pennsylvania will be shared with the visitors to our region eager to experience a place of history and recreation;

Figure 2: Carrie Furnace Site (1)

- the hope of citizens of the neighborhoods who contributed to the success of the steel industry that rebirth and revitalization of their communities is upon them; and
- the hope of a region that a showcase will be created to celebrate our proud history and the resources and opportunity that await new visitors and residents of a former steel and industrial city now bustling with world class universities, unrivaled health care systems, cutting edge medical and robotics research institutions, parks, trails and outdoor adventures for families, and extraordinary dining and cultural experiences comparable to major metropolitan US cities.

A seedling of hope has set out delicate roots and now grows in the shadow of Carrie Furnaces 6 and 7 ("Carrie Furnaces") as the vision of the proposed

Homestead Works National Park ("National Park") which would encompass the Carrie Furnaces and would be developed within the 138 acre Brownfield site.

A. BACKGROUND

i. Steel History

The Carrie Furnaces were built in 1907 and produced iron for the Homestead Iron Works from 1907 until 1978. All iron production at the Carrie Blast Furnace was phased out in 1984 when the mill ceased production and closed its operation.

Figure 3: Worker iron smelting at Carrie Furnace 1952, Photo from (16)

Furnaces 6 and 7 are the only non-operative blast furnaces from the Homestead Works, and in the larger Pittsburgh area, to remain intact. They serve as rare examples of the American industrial material culture. At their peak, each produced 1000-1250 tons of iron per day. During the late 19th and early 20th centuries, the Pittsburgh district was the leading producer of iron and steel in the world and by the year 1900, the district manufactured 40% of the nation's iron and steel.

Originally launched in 1884 as the Carrie Furnace Company, the company was purchased in 1898 by Carnegie Steel as a result of its need for iron making capacity at the Homestead Iron Works. In its 105-year history, the Homestead Works produced more than 200 million tons of steel: rails and railroad cars, armor plate that covered battleships and tanks from the Spanish-American War through the Korean War, and beams and girders that went into the Empire State Building, the Gateway Arch in St. Louis, the U.S. Steel Building in Pittsburgh, and the Sears Tower in Chicago. (17, 18)

Figure 4: Carrie Furnace Site (1)

ii. Communities

The Carrie Furnace Site is currently owned by Allegheny County and its development is being spearheaded by the Redevelopment Authority of Allegheny County. Rivers of Steel serves as a representative of the interests of the National Parks Service in the development of the Site. The Site includes land located in the municipalities of Swissvale and Rankin, and the primary anticipated access point is located in Braddock, a neighboring municipality also located on the shores of the Monongahela River. These communities have struggled since the closure of the steel mills to establish new revenue streams. (10)

iii. Current Status of National Park and Related Legislation

The proposed National Park would include a thirty-eight (38) acre area surrounding the Carrie Furnaces together with the Homestead Pump House, the location of a violent strike in 1892 by the workers against the Pinkerton Guards of the Homestead Iron Works known as the "Battle of Homestead," and the Water Tower. The National Park would be one part of the larger one hundred thirty-eight (138) acre Carrie Furnace Brownfield site to be redeveloped into commercial and residential space.

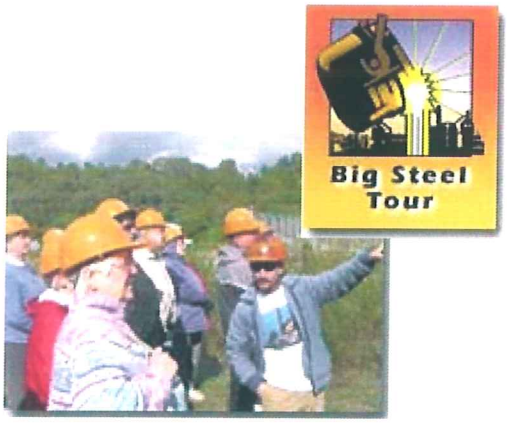

Figure 5: In the past, Rivers of Steel has offered "Hard Hat Tours" of the Carrie Furnace Site where local tour guides make 125 years of Big Steel come alive. (17)

The Carrie Furnaces were designated as a National Historic Landmark in 2006 and legislation to further

designate the Carrie Furnaces as a National Park Site is currently before Congress.[1] Such designation will provide Thirty-Five Million Dollars ($35M) in federal funding, which will need to be supplemented with a successful capital campaign to raise local, state, and private funds.

B. LDI COMMUNITY IMPACT PROJECT

Rivers of Steel National Heritage Area ("Rivers of Steel") enlisted the assistance of Leadership Development Initiative XV ("LDI") and created an opportunity for six (6) LDI participants to conduct a Community Impact Project ("Project") whereby team members would learn about the plans for the proposed National Park, including the use, remediation, and rehabilitation of the Carrie Furnaces and conduct research to identify strategies used by other successful Brownfield developments to attract tourists, to connect to surrounding communities, and to retain the historic personality and significance of the site. What follows are the results of that endeavor.

Figure 6: The interior of the AC Power House is empty, although the large crane remains. This space could be used for events, receptions, or educational displays. (1)

[1] The bill is H.R. 285 and S. 697, "The Steel Industry National Historic Site Act" sponsored by Representatives Doyle and Altmire, and Senators Specter and Casey.

In connection with the Project, team members interviewed representatives from Swissvale, Rankin, and Allegheny County to pose questions about their respective views of the Carrie Furnace and anticipated National Park. The interview sessions focused on what each community could offer to tourists, what tourists could offer to these communities, and the most important priorities of each stakeholder for the development of the Carrie Furnaces and surrounding area.

Figure 8: Carrie Furnace Site (1)

Figure 9: Local artists have created a sculpture of a deer's head on the site using found materials. This impressive figure is a symbol of the creativity of the people. Rivers of Steel personnel indicated that they hope to retain the sculpture at the Park Site. (1)

Figure 7: Carrie Furnace Site (1)

Figure 10: View of Carrie Furnace (1)

II. Realizing the Vision - Economic Development and Tourism

A. CARRIE FURNACES VISION - TOURISM

The Carrie Furnaces represent an important opportunity within Allegheny County and the larger Southwestern Pennsylvania region to attract new visitors and entice new residents. With new tourists and residents come excellent economic development endeavors which could stimulate the economies of Swissvale, Rankin, and Braddock. In addition, the site can inspire increases in the social capital of the communities and the region by enabling the citizens to become involved in a showcase of the history and connect to the present strengths and potential of the area.

Figure 12: Carrie Furnace (1)

The National Park can capitalize on the existing tourist framework in Allegheny County, and contribute to its expansion by establishing a one-of-a-kind historical attraction that teaches visitors about the steel industry, celebrates the history of the region, and exposes them to the communities which sustained the Homestead Iron Works during its years of operation. Allegheny County ranks first in the Commonwealth of Pennsylvania with a 12.7% share of the total state tourism revenue. Tourism provides $3 Billion Dollars annually to the local economy. The Pennsylvania Department of Community and Economic Development indicated that every One Dollar ($1) invested by the state generates $565 in direct visitor spending. In recent years, the Pittsburgh region has hosted 9.6 million overnight leisure travelers and those visitors on average spend $587 in expenditures per trip. In 2007, an estimated $73.6 Million Dollars in direct spending came from visitors to Pittsburgh. Approximately 80% of the current overnight leisure travelers come to the region to visit friends and relatives, attend a special event, or for other personal reasons. These visitors spend 25% of their time shopping, 24% of their time dining at local restaurants, 19% of their time sightseeing, and 17% of their time on general entertainment. *Global Traveler* has described Pittsburgh as "Livable, lovable Pittsburgh – the Steel City inspires the imagination" and *Frommers* has listed Pittsburgh as

Figure 11: LDI Team members on the Carrie Furnace Site grounds. The land surrounding the furnaces is flat and would be ideal for parking, events, camping, etc. Land adjacent to the site designated for the National Park Site is slated for development. (1)

"One of the Top Travel Destinations in the World." (19)

Accordingly, the region already has an established network of visitors who would likely be interested in expanding their Pittsburgh visit to include a stop at the Carrie Furnaces and their National Park. The Site would also attract new visitors to the region. These tourists could stop at the Triangle Bar in Swissvale, or learn about the 100 year old Rankin Christian Center which began as an organization designed to teach English to Eastern European immigrants, many of whom worked in the steel industry and traveled to the United States to build a better life.

Figure 13: Sizable space at the core of the Carrie Furnaces. LDI Team members envision this space as a potential location for musical and dramatic performances. (1)

The stories of two comparable sites, the Lowell National Historic Park (LNHP) in Lowell, Massachusetts, and the Sloss Furnaces in Birmingham, Alabama, provide a picture of how the development of the Carrie Furnace Site might occur and the potential impacts on the surrounding communities.

B. COMPARABLE SITE 1: LOWELL NATIONAL HISTORIC PARK

Well before the Pittsburgh region became the steel making capital of the world in the early 20th Century, the textile mill City of Lowell, Massachusetts was revolutionizing industrialization in America, becoming the leading site of textile production in the nation. With the eventual decline of its industry, Lowell, like Pittsburgh, was transformed into a cultural economy; the creation of the Lowell National Historic Park (LNHP) in 1978 was its flagship project. Industrialization, urbanization, and immigration are all themes in the history of Lowell that have been preserved in connection with the city's economic revitalization.

Figure 14: Guard Locks on the Pawtucket Canal is the entryway to the canal system and contains both a lock chamber for transportation, and sluice gates for water power. This site is probably best known for the "Great Gate", seen here on the left, a 21 ton wooden gate completed in 1850. This gate was used in 1852 and 1936 to save the city from devastating floods. (6)

Lowell is considered the "Cradle of the American Industrial Revolution" as it was the first large-scale factory town in America (5). Lowell's factory system combined new technology with revolutionary forms of organization and finance to provide for the mass production of cotton cloth.

Figure 15: Lowell's mile of mills seen from across the Merrimack River. Many mill buildings remained abandoned after the manufacturing companies left Lowell. Without the recent revitalization of Lowell, many of these mills would have been torn down, or left in ruins. (6)

The Merrimack River was the feeder canal for a 5.6 mile canal system that powered the city's famous mills. The labor system was comprised of New England farm girls (known as the mill girls); they were recruited as the first mill operatives and provided a reliable labor force. By the mid-19th century, deteriorating working conditions and foreign immigration led to the replacement of mill girls with Irish, French Canadian, Polish, and Greek immigrants (4). These immigrants largely resided in segregated areas and developed distinct cultures that enabled them to adapt to urban, industrial life. These working class ethnic neighborhoods still evolve and flourish in Lowell and their traditions are an important historical and cultural resource (3). Gradually, the Lowell textile industry declined because of economic depression, lack of investment, relatively high labor costs, and state regulation of hours of work. Many of the mills closed or moved to the South (2).

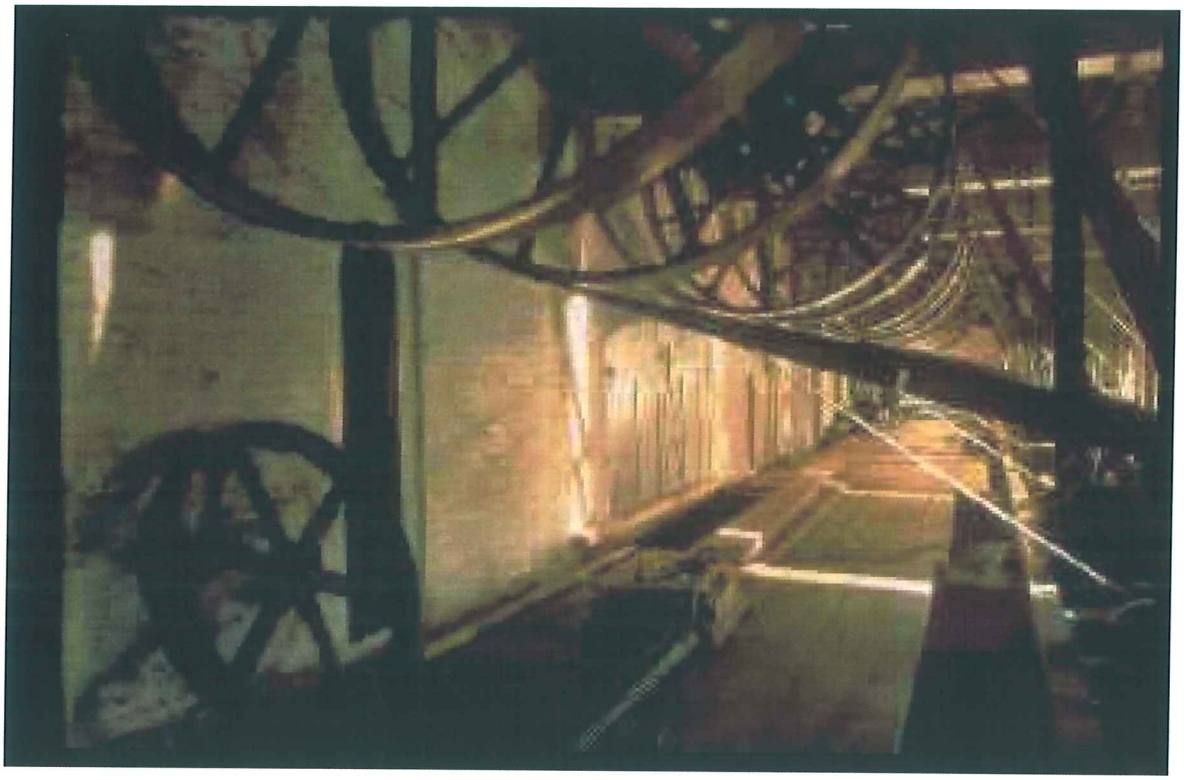

Figure 16: Inside Pawtucket Gatehouse are ten sluice gates to control water flow. The six-ton gates were operated by a hydraulic system powered by a James B. Francis turbine. The gates are still active, although computer controlled, and regulate water flow to the hydroelectric plant located on the Northern Canal. (6)

Visitors that come to Lowell today can see the dam and nearly six miles of canals that harnessed the energy of the Merrimack River; the mills where the

cloth was produced; a boarding house representing the dozens of like buildings that housed the workers; the churches where they practiced their faiths; the ethnic neighborhoods (6). Each year, thousands of people and students visit Lowell to get a sense of what it was like to have worked in a 19th century cotton mill. At Market Mills Visitor Center, tourists can start their trip to Lowell with a canal boat ride or hop on a trolley that brings them to the Boot Cotton Mills Museum, the park centerpiece (2) which illustrates the theme of industrial production, explaining the operation of the mill, the generation of water power, and the changing nature and meaning of work (3). The Patrick J. Morgan Cultural Center is an eye-catching building that was originally a corporation boardinghouse block for young women working in the mills. The Patrick J. Morgan Cultural Center houses exhibits designed to tell the human story of Lowell, forming a bridge between the city, its community groups, the University of Massachusetts Lowell, and LNHP (6).

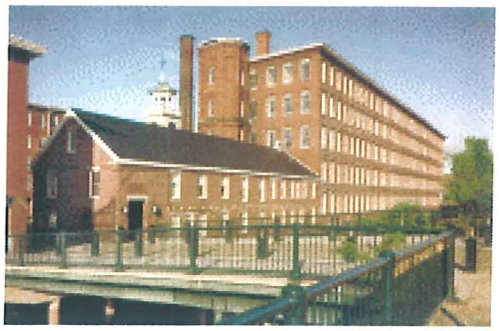

Figure 17: This restored 1830's Boott Mill boardinghouse was once the home to "mill girls", New England farm girls who came to Lowell to work in the factories. These young women lived in company owned boardinghouses like this one. Today, this building houses the UMASS Lowell Center for Lowell History, and Lowell National Historical Park's Working People Exhibit.

Boardinghouse Park, in the foreground, is home to outdoor concerts throughout the summer. (6)

i. Economic Significance on the Community

Lowell normally attracts between 600,000 and 700,000 visitors each year which undoubtedly has a significant impact on the local economy. According to the Michigan State University study, "National Park Visitor Spending and Payroll Impacts 2006," LNHP had a total of 632,234 recreation visits in 2006 which yielded an estimate of $40.8 million in total visitor spending. Of this total, $38.0 million in spending was attributed to non-local visitors, resulting in 714 jobs, $17.7 million in personal income, and $27.5 million in total value added. The payroll specifically related to LNHP also has a significant impact on the local economy; the 2006 estimates for the impacts of park payroll are as follows: 159 jobs, $8.2 million in personal income, and $9.3 million in total value added.

ii. Perseverance in Lowell

The state and local efforts in originally attracting the

National Park Service (NPS) to Lowell cannot be understated. Local groups had produced a set of objectives and projects aimed at revitalizing the city through a rediscovery of its heritage many years prior to the NPS's involvement. Prior to obtaining congressional designation, the City of Lowell had financed substantial community improvements, local educational and cultural institutions invested considerable effort in generating support for the park, and the State of Massachusetts committed $9 million to park development and $10 million in transportation improvements (3).

The support received from local politicians was also critical to Lowell's success. In 1974, a Massachusetts State Representative authored legislation to create the Lowell Historic Canal District Commission (Commission) which received an appropriation of $150,000 to develop the park plan that was ultimately presented to Congress. In response to an early concern expressed by the NPS related to the scattered nature of Lowell's resources, the plan submitted by the Commission divided the park into two zones and called for a new management entity with state, local, and federal representation, to coordinate efforts beyond the primary zone where the NPS would lead preservation efforts. This new entity, The Lowell Historic Preservation Commission (LHPC), would coordinate efforts of agencies working on the park, establish management standards, and administer a preservation program toward which it would have the power to provide financial grants. The LHPC remained active until the park was substantially complete. Despite the comprehensive plan developed by the Commission, the NPS still resisted but for the unrelenting efforts of Senator Paul Tsongas and other leading politicians. The legislation providing for LNHP finally cleared Congress in 1978 (2).

The establishment of LNHP was a result of perseverance at all levels of the community and the social and economic benefits that the LNHP and its tourism have brought to the proud City of Lowell are hardly measurable. The LNHP's Administrative History (2) recounts thoughts from some key figures in the planning and development of the LNHP during a 1988 celebration of the park's first

Figure 18: Incorporated in 1835, and named for Kirk Boott, the first mill agent, the Boott Manufacturing Company was one of many cotton textile mills established in the growing city of Lowell. Today, this restored mill houses The Boott Cotton Mills Museum, a part of Lowell National Historical Park. The highlight of this two floor museum is a re-created 1920's working weave room. (6)

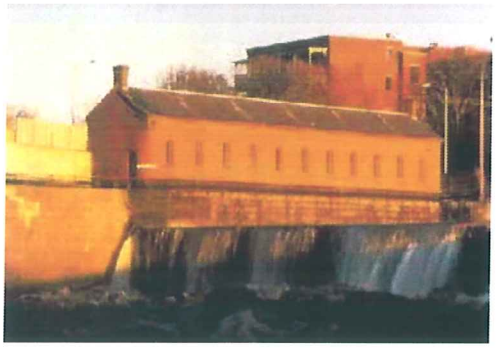

Figure 19: The Pawtucket Gatehouse, overlooking Pawtucket Dam, is the largest gatehouse on the canal system. Completed in 1848, the gatehouse controls the flow of water into the Northern Canal and the mills beyond. The Northern Canal completed the city's 5.6 mile canal system, which is still being used today. (6)

decade:

> "When we came into town 10 years ago, Lowell was physically and emotionally depressed. The National Park helped turn that completely around. It helped people realize how important this city is in the history of America." –Chrysandra Walter, Park Superintendent.
>
> "People are staying in Lowell because they see a future here for themselves and their families." –Fred Faust, former Director of Lowell Historic Preservation Commission
>
> Patrick J. Mogan, planner and public visionary, recalled that Lowell was an "industrial and ethnic city and people were ashamed of it." The success of the park changed all that. "It's like having a ten year old kid, you can't imagine what life was like before it," Senator Paul Tsongas said.

Figure 20: Carrie Furnace (1)

iii. Connections to Carrie Furnace

The urban setting, the strong ties between industry and workers and the community, the history of the city, and the connection between historic preservation and economic revitalization make LNHP a comparable site to the Carrie Furnaces. The Lowell story emphasizes the importance of strong local support and commitment of resources in order to mobilize partnerships at the federal level. The ultimate success of Lowell evidences the potential of the Carrie Furnaces as a national historic park to ignite the redevelopment and revitalization of the local community.

C. COMPARABLE SITE 2: SLOSS FURNACES

The Sloss Furnaces are located in the city of Birmingham, Alabama. They began producing iron on April 18, 1882. During peak production in the late 1920's they employed an estimated 500 workers and produced 400 tons of pig iron daily. According to the Sloss Foundation, "Sloss Furnaces gave rise to the city of Birmingham and served as a battleground for economic, employment and social reform." Of the 53 pig iron mills that once towered around the Birmingham area, Sloss is the only one remaining. It is a symbol of the post Civil War south efforts to industrialize.

Figure 21: Sloss Furnaces (20)

Like much of the rest of the steel industry during the 1960's and 1970's, stricter air pollution standards, competition from foreign imports, and mismanagement led to a downturn. The Jim Walter Corporation who owned the furnaces donated the property to the Alabama State Fair Authority in 1971 with the hopes of developing a museum of industry. After several years, it was determined that preservation of the plant was not feasible and plans to demolish it were announced. The Sloss Furnace Association was organized to support the preservation of the site due to its cultural and historical significance to the city. (12)

Figure 22: Sloss Furnaces (20)

In 1976, the preservation of the Sloss Furnaces drew national attention. The Historic American Engineering Record (HAER), the Department of the Interior, and the City of Birmingham funded a survey of Sloss that documented its historic significance. The State Fair Authority transferred control to the City of Birmingham and in 1977 voters passed a $3.3 million bond to begin the work of preservation. Two-thirds of the historic structures were stabilized using this money. In 1981, the Sloss Furnaces received designation as a National Historic Landmark. Its gates were officially opened in 1983 as a museum. (12)

Figure 23: View of the Sloss Furnace Site from Google Earth. (20)

The Sloss site is approximately 32 acres in size. Site accessibility is one of the largest problems of the site. Site accessibility is restricted due to 3 major rail lines surrounding the facility. At times, the entrance can be blocked for up to 2-3 hours until rail cars are moved. This is slated for correction later this year. The area around the site is a mix of businesses. There are large and small office buildings. Two blocks from the site is an area called Lake View that is mostly made up of restaurants and a few nightclubs. Sloss is a city-owned museum. It employs 10 city employees and 9 Sloss Furnace Foundation employees. In 2007, the Sloss Furnaces hosted about 173,000 visitors, many from out of state. According to Kellye Copas, Development Officer Sloss Foundation, many of the visitors continue their tour of Birmingham's cultural attractions after leaving Sloss. Within a few miles of the site, they can experience the Birmingham Civil Rights Institute, the Birmingham Museum of

Art, Vulcan Park and Museum, as well as the Sixteenth Street Baptist Church. (13)

i. Uses and Economic Significance

The furnaces currently provide educational tours and community outreach programs on science and cultural history as they relate to Birmingham's iron industry. Locally, the foundation is very active in the Teaching American History Project, which helps teachers from across the county visit historical sites to learn new and interesting ways to share the history in their classroom. Outreach programs bring the history of Sloss into area classrooms through a character named Lil' Red, mirrored after workers at Sloss. Lil' Red provides a first-person history lesson on what it was like to work and live at Sloss when it was producing most of the county's pig iron. Last year, 7000 students experienced Sloss through field trips. Most were able to experience an actual iron pour thanks to the internationally known Metal Arts Program.

Figure 24: Classroom outreach programs (20)

Sloss also hosts the bi-annual Southeast Conference on Cast Iron Art. On average 400 students, artists, and teachers from all over the world attend. In 2007, participants came from as far away as Korea, New Zealand, and Wales. The National Endowment for the Arts partially supports the Metal Arts Program. There are 5 artists assigned to the program. This support is specifically for the Summer Youth Apprenticeship Program, which provides high school students interested in art the opportunity to learn metalworking techniques, have their work displayed locally, and receive a wage.

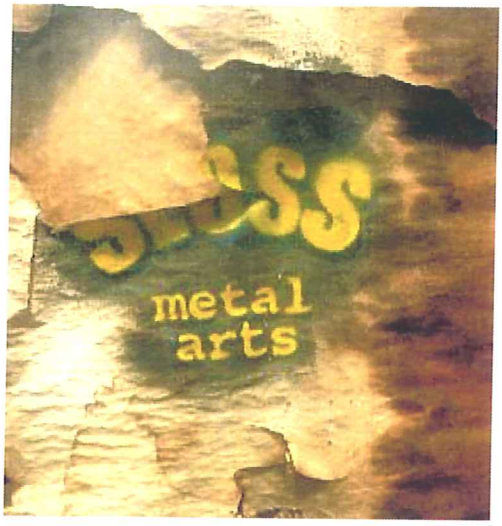

Figure 25: Sloss Furnaces Metal Arts Program Logo (20)

In addition it has become a great venue for concerts and performances. The cast shed serves as a covered concert hall, mostly for rock concerts. Currently, the revenue generated through this does not flow directly to the Sloss Foundation (Foundation). There is a contract in place between the city and a private venue management company. This is expected to change within the next year and the revenue should help offset some of the operating costs of the landmark. Net revenue from annual concerts is $150K - $200K

annually. There are approximately 6-8 major concerts per year (attendance of 2500 or more) as well as 12 minor concerts (attendance of about 1000). The site is also host to corporate parties.

Sloss recently adopted "Muse of Fire" as a project of the Sloss Performing Arts. This project brings classic Shakespeare into the modern age, using the furnaces as a backdrop for deconstructed plays. This program has been featured in the New York Times and began with a relocated New York City resident approaching the City of Birmingham with an idea. This year, Muse of Fire featured Macbeth. Tickets sold for $20 and the performance netted $6,000 for the Foundation.

The furnaces also host the annual Stokin' Barbecue Festival. What began with 7000 people and 25 teams has grown to 30,000 people and 57 teams from around the country. Most visitors stay onsite in RV's or tents, with a small portion staying at hotels. Last year, the Foundation raised $50,000 for support of the landmark through this festival. Judges were local county commissioners and city council members.

Sloss is also host to an annual haunted house. The event is sold out on a regular basis and grosses over $500,000 annually.

In speaking to Dr. Robert Rathburn, Director of the Sloss Foundation and President of the South East Cultural Trust, Sloss has been a success because they have been successful in finding the right people who understand development, marketing, entertainment, pricing structure, and have the knowledge to make the events held at Sloss fun and educational at the same time.

Currently the Foundation is working on a capital campaign to build a Visitor, Arts, and Heritage Center, complete with exhibits that would tell the Sloss story. The project is anticipated to provide a direct economic impact locally of $12.5 million during the initial construction and an annual impact of $3.5 million following the completion of the center. There are also plans for a new amphitheatre with improved parking and other amenities. Once the visitor center is complete, it is estimated that this would result in a net increase of 6 additional full-time staff positions. The completion

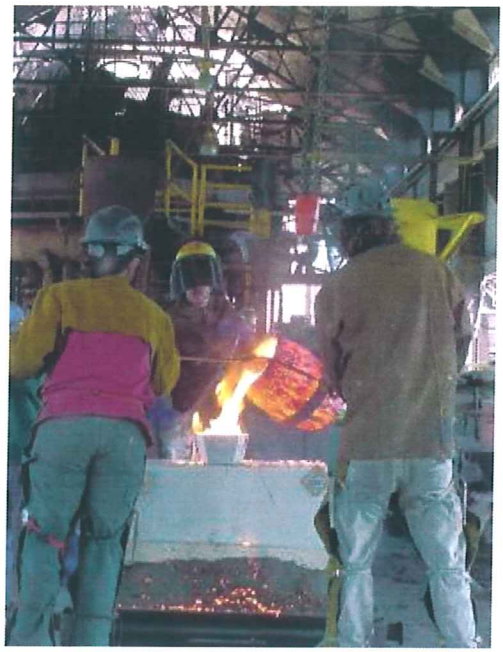

Figure 26: Iron Pour, Sloss Furnaces (20)

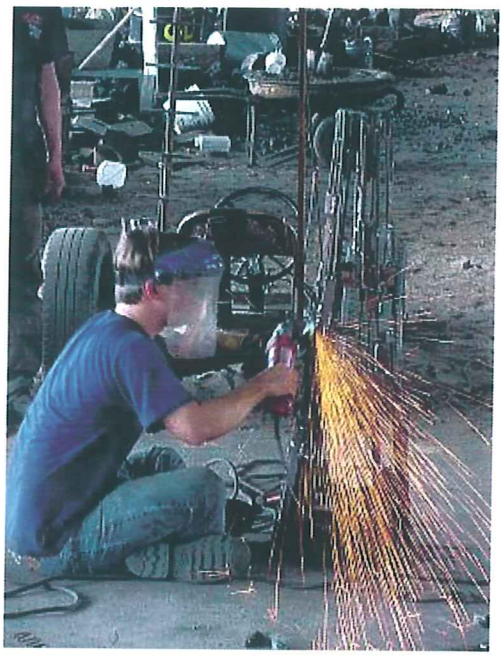

Figure 27: Metal arts in progress. (20)

of the visitor center will create indoor training space for the future vision of the site. According to Dr. Rathburn, the next phase of the Foundation is partnering with local schools and industry to target 8th and 9th graders who are not on a path for college. The plan is to coordinate field trips, internships, and training for these students to help meet the future needs of the community. Total estimate to complete the final plan for the site is a total of $53 million.

Figure 28: Sloss Furnaces (20)

According to 2007 census estimates, Birmingham is a city of 242,800. The Birmingham region population is 1,108,200. Birmingham was once known as the "Pittsburgh of the South." Like Pittsburgh, it has gone through an economic rebirth. Though manufacturing still maintains a strong presence, the new industries are banking, medicine, insurance, publishing, and biotechnology. One of the largest employers is the University of Alabama Birmingham. (14)

According to the Greater Birmingham Convention and Visitors Bureau 2006 Study, the total estimated number of tourists visiting the city for conventions, business, and pleasure was 4.2 million. More than

half of all visitors stayed in hotels or motels in the county. The estimated travel expenditures to the Birmingham area generated $1.5 billion. Of this, shopping expenditures (31%) accounted for the largest portion of tourism expenditures, with dining (28%) dropping to second place. Other top expenditures were lodging (17%), followed by recreation (12%), and transportation and other expenditures (12%). According to the Alabama Bureau of Tourism and Travel, Jefferson County recorded the largest amount of travel activity in the state.

In their current state, the furnaces have been reborn. Much as they contributed to the transformation of Birmingham, (post Civil War) into the industrial center of the South with production of iron, they are now contributing to the growth of Birmingham through education and as a center of cultural/community activities.

Figure 29: Master site plan (12)

ii. Connections to Carrie Furnace

The success of the Sloss Furnaces, in terms of cultural and economic impact, provides an important alternative option for the development of the Carrie Furnaces. The Sloss Furnaces have not attained status as a National Park site and remain a National Historic Landmark. As such, the local community in Birmingham could not rely on the National Park Service to establish or sustain the development of Sloss. Instead, the citizens together had to determine a different path to develop the culturally significant site, and utilized a creative model of (i) alternative public financing through a municipal bond offering, (ii) private capital campaign to fund the building of a heritage center, (iii) mixed-use real estate development including office buildings, retail, restaurants, and nightclubs, (iv) aggressive marketing to tourists and educators of the museums and conference opportunities, including inventing a family-friendly mascot, and (v) retaining the assistance of a private management company and consultants to manage the concert venue and pay management fees related thereto. With the collective cooperation of Allegheny County, Rivers of Steel, and the community stakeholders toward a similar

Figure 30: Metal art, Sloss Furnaces (20)

alternative vision as that at Sloss, the Carrie Furnaces could possibly be developed regardless of whether it achieves the National Park designation. The economic, social, and cultural opportunities contained within the site are too significant to allow them to depend entirely on the National Park designation.

Figure 31: Carrie Furnace Site (1)

D. ECONOMIC IMPACT OF NATIONAL PARK – LESSONS FROM MICHIGAN STATE

As the story of the development at Lowell portrays, the economic impact of the development of the Carrie Furnaces into the National Park Site has the potential to revitalize Swissvale, Rankin, and Braddock and be a source of civic engagement and pride for the region. Data was collected to further understand the potential economic impacts of the National Park on the community.

In November 2007, the Michigan State University Department of Community, Agriculture, Recreation and Resource Studies, issued a report that provides updated estimates of National Park Service ("NPS") visitor spending for 2006 and estimates the economic impacts[2] of visitor spending and the NPS payroll on the local economies. The estimates are based on calendar year 2006 park visits, spending averages from park visitor surveys, and local area economic multipliers. Impacts of the NPS payroll are estimated based on fiscal year 2006 payroll data for each park. The following data has been summarized from the Michigan State Study.

[2] Impacts measure the direct and secondary effects of visitor spending and park payrolls on local economies in terms of jobs, income, and value added. Jobs include full-time and part-time jobs; personal income covers wages and salaries including income of sole proprietors and payroll benefits; value added is the sum of personal income, profits and rent, and indirect business taxes (total sales net of the costs or all non-labor inputs). Impacts of construction activity and park purchases of goods and services from local firms are not included. Local regions are defined as a 50-mile radius around each park although the radius is closer to 30 miles for parks with urban settings.
Direct effects cover businesses selling goods and services directly to park visitors. Secondary effects include indirect and induced effects resulting from sales to backward-linked industries within the local region and household spending of income earned directly or indirectly from visitor spending.

i. Portrait of a Booming Industry

The National Park System is a booming industry in the U.S. The National Park System received 273 million recreation visits in 2006. In total, park visitors spent $10.73 billion in the local region surrounding the parks in 2006 which had a total economic significance of $13 billion in sales, $4.5 billion in personal income, and $7.0 billion in value added. Visitor spending supported about 213,000 jobs.

Of the 273 million national recreation visits, 28% represented day trips by local residents, 42% represented day trips from 50 miles or more, and 29% were overnight stays near the park.

The following statistical information summarizes the spending and economic impact estimates derived from the Michigan State Study.

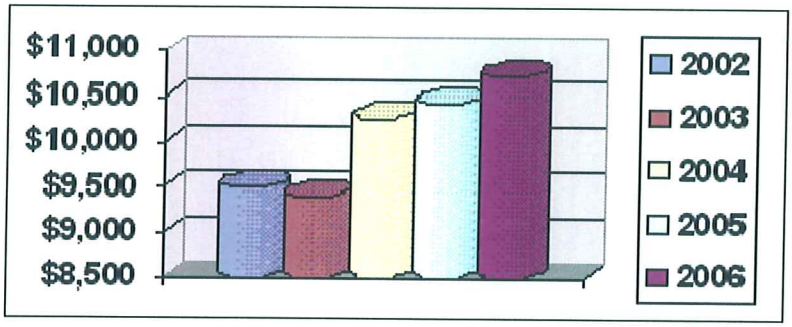

Figure 33: NPS System Total Spending 2002-2006 (000's)

Figure 33 shows that spending in the National Park System has been steadily increasing. Figure 34 provides a snapshot of how the various types of visitors contribute to the overall spending at National Parks.

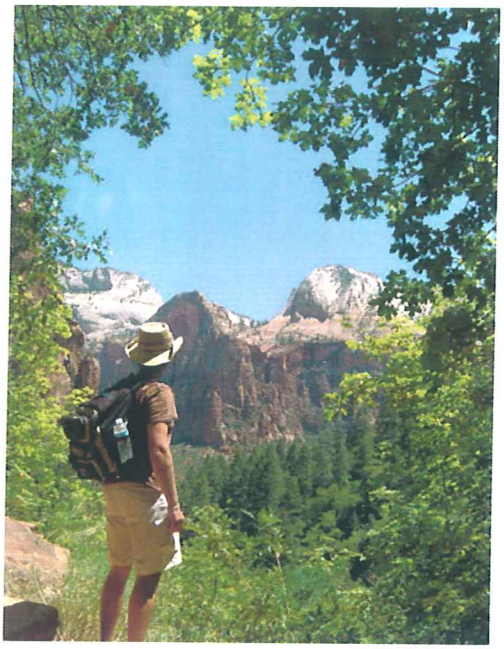

Figure 32: Person sightseeing at Zion National Park. (21)

Segment	Total Spending ($ millions)	Percent of Spending
Local day trip	$1,086	10%
Non-local day trip	2,554	24%
Lodge-in park	333	3%
Camp-in park	240	2%
Backcountry campers	38	0%
Motel-outside park	5,655	53%
Camp-outside park	755	7%
Other overnight visitors	68	1%
Total	$10,729	100%

Figure 34: National Park Visitor Spending by Segment, 2006

Of the money spent, Figure 36 shows the percentage breakdown of where visitors spend their money and Figures 37 and 39 show the economic significance and impact of that spending. This information can provide a general picture of how visitor tourism might impact the communities surrounding the Carrie Furnaces.

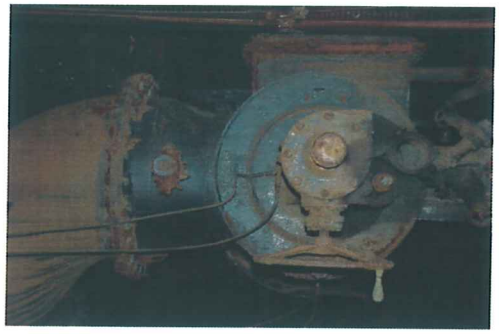

Figure 35: Carrie Furnace Site (1)

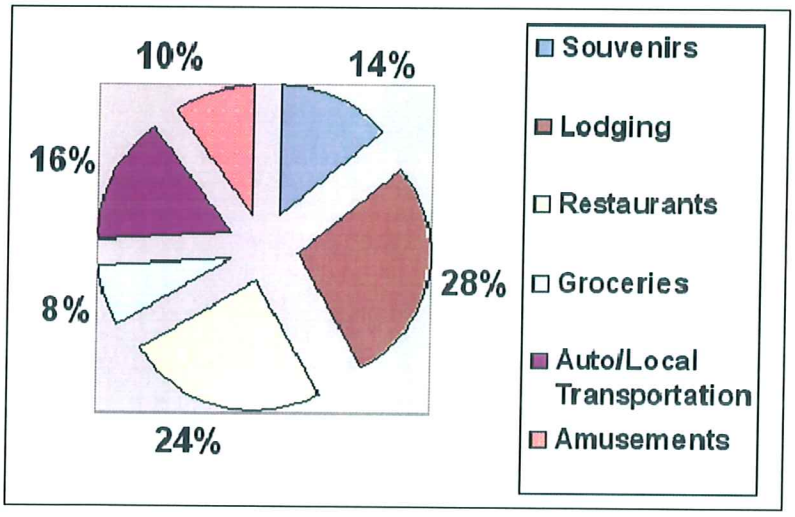

Figure 36: NPS System Distribution of Visitor Spending 2006

Sector/Spending category	Sales $ Millions	Jobs	Personal Income $ Millions	Value Added $ Millions
Motel, hotel cabin or B&B	$ 2,780	54,389	$ 1,221	$ 1,986
Camping fees	235	1,577	29	69
Restaurants & bars	2,572	63,552	1,019	1,152
Amusements	1,067	21,148	394	662
Other vehicle expenses	112	811	21	49
Local transportation	32	690	14	16
Retail trade	1,314	28,069	533	723
Wholesale trade	230	2,090	87	153
Local production of goods	336	965	30	45
Total Direct Effects	8,678	173,291	3,348	4,855
Secondary Effects	4,334	39,515	1,167	2,148
Total Effects	$ 13,012	212,806	$ 4,515	$ 7,003

Figure 37: Economic Significance of National Park Visitor Spending to Local Economies, 2006

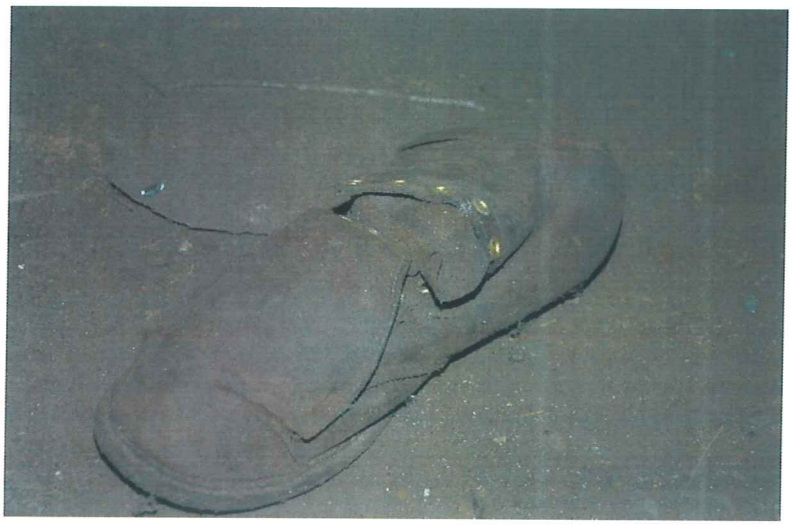

Figure 38: Shoe in the dust inside one of the buildings at Carrie Furnace site. (1)

Sector/Spending category	Sales $ Millions	Jobs	Personal Income $ Millions	Value Added $ Millions
Motel, hotel cabin or B&B	$ 2,724	53,510	$ 1,190	$ 1,921
Camping fees	231	1,552	28	67
Restaurants & bars	2,181	54,093	859	964
Amusements	925	18,397	339	566
Other vehicle expenses	95	695	18	42
Local transportation	31	679	14	15
Retail trade	1,092	23,418	440	593
Wholesale trade	191	1,745	72	126
Local production of goods	273	773	24	36
Total Direct Effects	7,743	154,862	2,984	4,330
Secondary Effects	3,842	35,068	1,033	1,904
Total Effects	$ 11,585	189,930	$ 4,017	$ 6,234

Figure 39: Economic Impacts of National Park Spending to Local Economies, 2006

NPS System-wide spending averages for 2006 are given below for local day trips, non-local day trips, motel (in park), and motel (out of park):

Spending category	Local Day Trip	Non-Local Day Trip	Motel (in)	Motel (out)	Camp (in)	Camp (out)
Motel, hotel cabin or B&B	-	-	154.43	100.95	-	-
Camping fees	-	-	-	-	18.79	22.58
Restaurants & bars	12.27	19.75	56.88	49.35	12.09	12.68
Amusements	4.37	9.23	19.67	16.66	7.75	14.68
Groceries	5.93	7.16	9.71	12.56	15.19	9.19
Gas & oil	7.40	17.88	21.81	16.93	19.26	16.83
Local transportation	0.51	1.23	3.33	2.58	1.20	1.05
Souvenirs	8.22	13.94	24.81	22.57	11.00	18.36
Total	38.70	69.19	290.64	221.60	85.28	95.37

Figure 40: National Park Visitor Spending in Local Area by Segment, 2006 ($ per party per day/night)

National park units also impact local economies through their own spending, especially NPS payrolls. Payroll impacts were estimated for fiscal year 2006. In fiscal year 2006, the National Park Service employed 24,284 people with a total payroll of $1.2 billion in wages and salaries and $302 million in payroll benefits. The local economic impacts of park payrolls are $1.8 billion in personal income, $2.0 billion in value added, and almost

36,000 jobs, including NPS jobs.

ii. Economic Impact Estimates: Potential Homestead Works National Park Site

The visitor spending and economic impact estimates in the previous section were developed using the Money Generation Model – version 2 (MGM2) (Stynes et al., 2000). Using the model and envisioning the National Park at the Carrie Furnace Site, the economic impacts of a potential Homestead Works National Park Site were developed.

Figure 41: Carrie Furnace Site (1)

Key assumptions used in these estimates include:

- 50% of recreation visits local, 25% non-local day trips, and 25% motel
- Historic Site – medium spending
- Small metro area (other option for the model is "Large metro area")
- Number of recreational visits: 250,000 to 450,000 (based on comparable site information)

Using the assumptions above, the following charts provide estimates of the impacts on the local economy from the Homestead Works National Park. As evident from the data below, the totals show that the Value Added to the local economies might range from $7 million to $12.6 million dollars annually and result in 240 - 433 new jobs.

250,000 Recreation Visits	Sales ($000s)	Jobs	Personal Income ($000s)	Value Added ($000s)
Direct Economic Effects				
Non-local day trip	$ 1,258	28	$ 446	$ 675
Motel	7,297	163	2,856	3,918
Total Direct Effects	$ 8,555	191	$ 3,302	$ 4,593
Total Economic Effects				
Non-local day trip	$ 1,824	35	$ 651	$ 1,030
Motel	10,580	205	3,776	5,976
Total Effects	$ 2,404	240	$ 4,427	$ 7,006

Figure 42: Economic Impacts of National Park Visitor Spending to Local Economy, Potential Homestead Works National Park Site

350,000 Recreation Visits	Sales ($000s)	Jobs	Personal Income ($000s)	Value Added ($000s)
Direct Economic Effects				
Non-local day trip	$ 1,761	39	$ 624	$ 945
Motel	10,215	228	3,620	5,485
Total Direct Effects	$ 1,976	267	$ 4,244	$ 6,430
Total Economic Effects				
Non-local day trip	$ 2,553	49	$ 911	$ 1,442
Motel	14,812	287	5,287	8,366
Total Effects	$ 17,365	336	$ 6,198	$ 9,808

Figure 43: Economic Impacts of National Park Visitor Spending to Local Economy, Potential Homestead Works National Park Site

450,000 Recreation Visits	Sales ($000s)	Jobs	Personal Income ($000s)	Value Added ($000s)
Direct Economic Effects				
Non-local day trip	$ 2264	51	$ 802	$ 1216
Motel	13,134	293	4,654	7,052
Total Direct Effects	$ 15,398	344	$ 5,456	$ 8,268
Total Economic Effects				
Non-local day trip	$ 23,283	64	$ 1,172	$ 1,854
Motel	19,044	369	6,797	10,756
Total Effects	$ 22,327	433	$ 7,969	$ 12,610

Figure 44: Economic Impacts of National Park Visitor Spending to Local Economy, Potential Homestead Works National Park Site

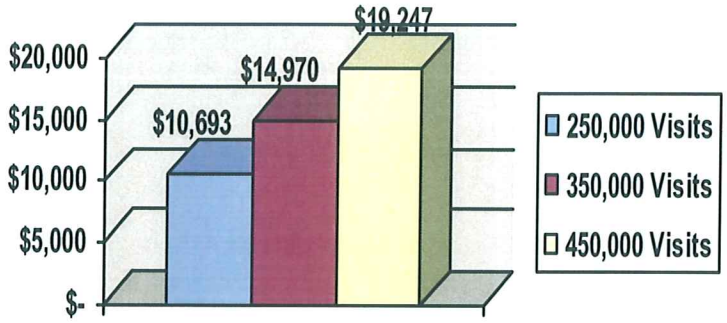

Figure 45: Homestead Works National Park Site – Estimates of Total Spending ($000's)

E. CARRIE FURNACES VISION - REVISITED

Figure 46: (1)

As evidenced by the Michigan State Model, tourism, especially that generated from a National Park, is a vital economic development strategy. The Carrie Furnace Site provides a unique opportunity to attract visitors of all ages – retiring baby boomers who remember the dominance of Pittsburgh and its role in the history of the steel industry; families traveling to Kennywood, Sandcastle, the Pittsburgh Zoo, or Carnegie Museums who seek a place of additional recreation and a chance for their children to learn about the region; and single tourists who may be attracted to a cultural event on the National Park grounds and find additional entertainment and dining experiences different from those options available downtown or in other parts of the region. Such visitors would serve as an economic and social stimulus to a region emerging from its reputation as a stagnant, smoky "Steel City" to a thriving green, technology, health care, business, and cultural beacon. In addition, the citizens of the immediate surrounding areas encompassed in the Carrie Furnace site plan would benefit from the economic opportunities that tourism and the Project would bring.

Figure 47: Looking up among the stacks at Carrie Furnace. (1)

III. Present Status - Community Interviews

In connection with the Project, Rivers of Steel invited the LDI team members to attend the standing monthly meetings of the Carrie Furnace Redevelopment Steering Committee ("Steering Committee"), a group comprised of representatives from the Boroughs of Rankin, Swissvale, Braddock, Woodland Hills School District, and the Redevelopment Authority of Allegheny County, in addition to Rivers of Steel. The voting members of the Steering Community include Allegheny County, Rankin, Swissvale, and Rivers of Steel, and to some extent Braddock depending on the proposal.

Figure 48: Carrie Furnace Site (1)

The group's composition includes the key regional stakeholders determining the future of the Carrie Furnace site development. The Steering Committee has been meeting for several years with the ultimate goal of developing the planning framework and setting the expectations for the development. The Steering Committee contributed to the Carrie Furnace Site Conceptual Plan, a prospectus which outlines shared goals of the Site

(i) generating economic growth within the communities and region, (ii) becoming a destination for visitors, immigrants, and entrepreneurs, (iii) being integrated within the neighboring communities, (iv) building upon the heritage of the past steel industry and visions of the regional strengths in technology and other areas for the future, and (v) establishing a new model for the successful integration of Brownfield sites with local communities and regional assets.

Through the interviews, it was clear that the stakeholders believe that the future of each Borough is dependent upon the successful development of the Site. None of the surrounding communities have existing hotels and have few businesses and industries that employ significant numbers of residents. Each are suffering under low housing values and the crisis of vacant or condemned homes, which is especially problematic when their principal source of revenue is derived from property tax. Since the decline of the steel industry and closing of the Homestead Iron Works and other steel mills, the populations of each municipality have shrunk year after year, leading to their existing financial woes, and question of ultimate survival.

Figure 49: LDI Team members entering the AC Power House (1)

A. SWISSVALE

Swissvale is a community of 9,653 people, with a land area of 1.2 square miles (11). For many years, Swissvale has suffered from many "drive by" tourists, who simply drive through the community en route to other destinations not within Swissvale. Specifically, Swissvale serves as a primary gateway to Kennywood Park, Sandcastle Water Park, and the Waterfront shopping complex. Too often, visitors do not stop and patronize any of the local businesses in Swissvale. Swissvale believes that the best concept for the Site would be to incorporate an incline which would take visitors into the National Park. The entrance to the incline would be located in Swissvale, and visitors would park in Swissvale and have an opportunity to explore the stores and restaurants in the commercial portion of the Borough. Such a plan would also eliminate many of the blighted or

Figure 50: Carrie Furnace Site (1)

abandoned homes on the top of the hill overlooking the Site. Swissvale also envisions a new housing complex abutting the entrance point, and the housing would include a mix of town homes and single family homes. (7)

Figure 51: Carrie Furnace Site (1)

B. RANKIN

Rankin is a proud community of 2,300 people, with a 0.5 square mile total land mass. It has been greatly impacted by the decline of industry along the Monongahela and has a strongly juxtaposed population – one comprised of families who are second and third generation residents with a strong commitment to community betterment, and the other comprised of residents within the three Section 8 housing developments located within this small Borough. The residents of the housing developments are not integrated into the larger community and appear ambivalent about the future of Rankin.

Rankin believes that the development of the Site will likely have little impact on the existing businesses within Rankin, but offers opportunity for new housing and more visitors to the community, all of which are positive possibilities. They believe the best surrounding development would include light industrial or Class A office space which would add to the property tax base. (8,9)

Figure 52: Carrie Furnace Site (1)

C. ALLEGHENY COUNTY

The development of the Carrie Furnace site is currently a priority of Allegheny County. It offers one of the largest brownfields left in the area. Accessibility to the site is limited; however the county is investigating plans to add an access ramp from Rankin Boulevard, as well as expanding the Hot Metal Bridge to vehicular traffic. The location is convenient to both Downtown and Oakland. The county is currently preparing the site for development. This includes permitting, utilities, breaking up of concrete pads, and raising of the site above the flood plan. Environmental studies show that the site is not contaminated. Allegheny County has hired a facilitator to assist the steering

committee with formulating a shared and mutually beneficial vision of the site. A successful development project, regardless of National Park designation would assist Rankin and Braddock in rescinding ACT 47 status, as well as assisting Swissvale to flourish once again. (15)

Figure 53: Carrie Furnace Site (1)

Figure 54: Graffiti on the side of one of the buildings on the Carrie Furnace Site. The Site has been a favorite spot for creative vandals since closing in 1984. (1)

IV. Opportunities and Takeaways

Resting silent on the shores of the Monongahela River is a rare economic, social, and cultural opportunity. Carrie Furnace encompasses the collective opportunities to create jobs, increase revenue from property taxes as a result of new housing stock, and potentially generate millions of dollars for the local and regional economies from tourism. Further, the successful development of this Site can restore a sense of purpose and community identity within the people of the proud but struggling neighborhoods of Rankin, Swissvale, and Braddock by allowing them to showcase their neighborhoods and highlight their contributions to the country. Finally, for a region which has for over a century been identified as a "Steel City," there is no devoted museum or educational tool whose principal purpose is to educate visitors and local residents about the history of steelmaking to tell its wonderfully rich and complex story; Carrie Furnace can be this place.

As set forth above, there are many compelling reasons to move forward with the Carrie Furnace Site development. A clear mandate from the communities and region exists for the development of the Carrie Furnace site. The course of that mandate is not one straight path, but instead offers two alternative routes, both of which reflect the common values required for the Carrie Furnace to be a successful economic development while also preserving its cultural heritage.

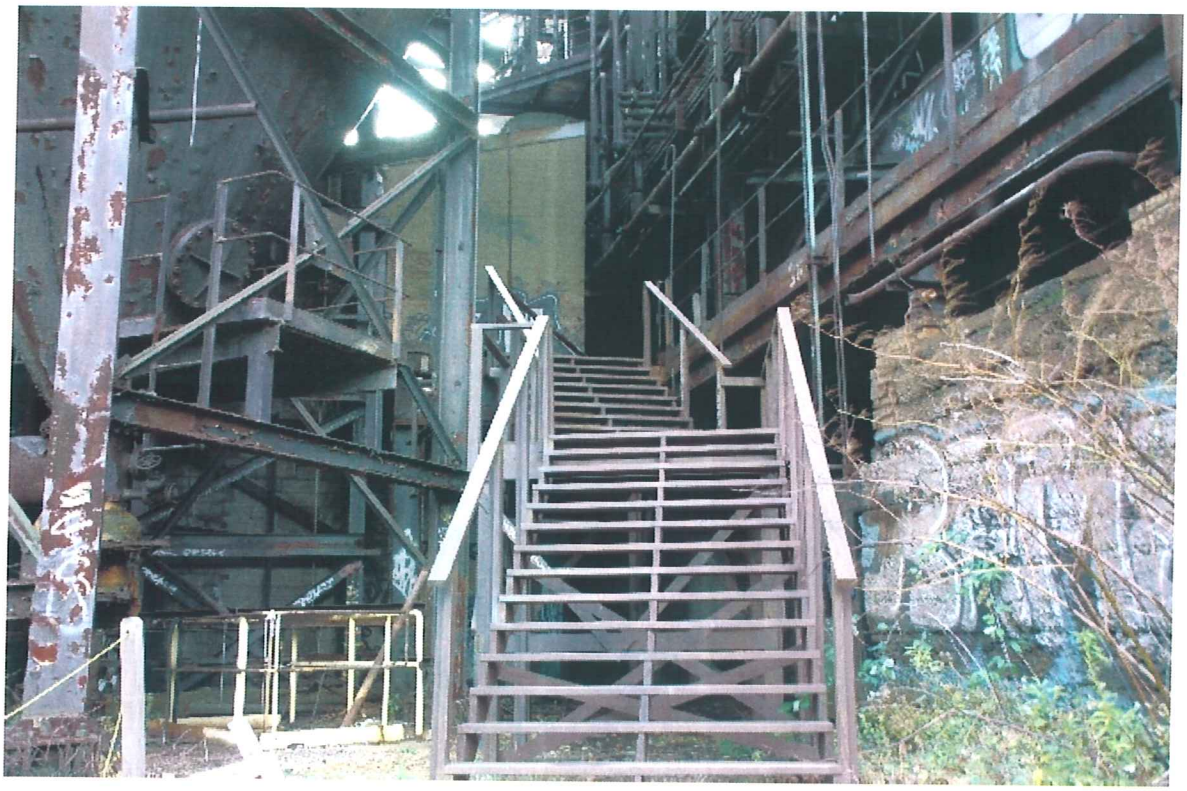

Figure 55: Hollywood comes to the Carrie Furnace Site. New stairs were built in the last few years in connection with a movie production. (1)

First, the development of the Carrie Furnace site is being pursued with the vision of its ultimate development as a National Park. As the Money Generation Model from Michigan State University reflects and as the Lowell Site success reveals, being designated as a National Park would provide immediate access to certain Congressional funding, marketing and infrastructure resources that the National Park Service can provide, and would help to establish this site as an important tourist attraction. There is much to be gained from such designation.

The second alternative would be to pursue the development of the Carrie Furnaces irrespective of whether it receives the National Park designation. The great example of the successful development of Sloss Furnace reflects an alternative path, one which emerges from the combined contributions of public funding, local leadership, grassroots fundraising, creative use of the site for arts, teaching and weekend events, and a will of the communities to ensure that an important historical and cultural site is not eliminated from the hearts and minds of the people.

Figure 56: Carrie Furnace Site (1)

Both paths require the cooperation of all the stakeholders to be unwaveringly invested in seeing the Carrie Furnace through to its ultimate development potential. Both the National Parks vision and the alternative vision depend upon the development of the site as a first-day tourist attraction to derive the greatest economic development opportunity. From the stakeholder interviews and participation in the Steering Committee meetings, it is clear that the parties involved believe it best for the site to include small businesses, immigrant education centers, performance space for the arts, steel industry museums, and new residential housing.

Figure 57: Ladle Car on the Carrie Furnace Site, previously used to carry molten iron across the Hot Metal Bridge to the open hearth furnaces at the Homestead Works. (1)

It is evident that the stakeholders are ready to move forward and see the concepts discussed for years at meetings come to fruition. There is interest, commitment and a core of dedicated community leaders who are devoted to this Project – such passions must be harnessed and focused. Our recommendation would be to expect that the site will be developed regardless of whether or not the National Park designation occurs. With that as the fundamental cornerstone, we believe the preferred action items are as follows:

- Continue the aggressive lobbying efforts lead by Rivers of Steel and local Congressman to obtain the National Park designation and funding that accompanies it. Securing public funding at the local level such as State Redevelopment Assistance Capital Grants could provide important leverage in obtaining support at the federal level;
- Begin the capital campaign to solicit private donations, including exploring levels of donations to be designated by various "steel industry" terms – for example, a donor providing a gift at the $25-$100 level would be classified as a "General Laborer Donor;"
- Encourage citizens from the communities of Rankin, Swissvale, and Braddock to serve as volunteers for the capital campaign so they are invested in the development of the Site, and will later be well positioned to serve as volunteers or employees on tours and at the Site;

Figure 58: Ladle Car on the Carrie Furnace Site (1)

- Consider creation of a partnership with Sloss to learn more about their challenges and successes without a National Park designation to implement similar results at the Carrie Furnace Site;
- Once the County has stabilized the Site, open the Site to the public by holding educational sessions, fundraising events, and artistic performances;
- Align with local organizations to share resources to educate citizens, potential investors, donors and tourists about the Site.[3]

Figure 59: Carrie Furnace Site (1)

Figure 60: Carrie Furnace Site (1)

As a concluding note, as a team we have been very impacted by our experience with Rivers of Steel and the Carrie Furnace planning community. We were humbled by the generosity that the Steering Committee showed us in welcoming us into their meetings and allowing us to participate. The community leaders inspired us in our interview sessions with their faith in their constituents and personal investment in assisting in the development of the Site. The merits of this Project, and its

[3] See the Additional Resources information available in Appendix A.

endless potential to stimulate the economy, the neighborhoods, and the minds of young and old, has awakened in each of us a renewed interest in learning about the history of the steel industry, and a pride in this region. We know that it can do the same for the thousands of other residents of Allegheny County, and the new visitors who have yet to realize what awaits them on their first trip into the former fiery soul of the Homestead Iron Works resting on the shore of the Monongahela River.

Figure 61: Carrie Furnace Site (1)

Figure 62: Carrie Furnace Site Carrie Furnace Site (1)

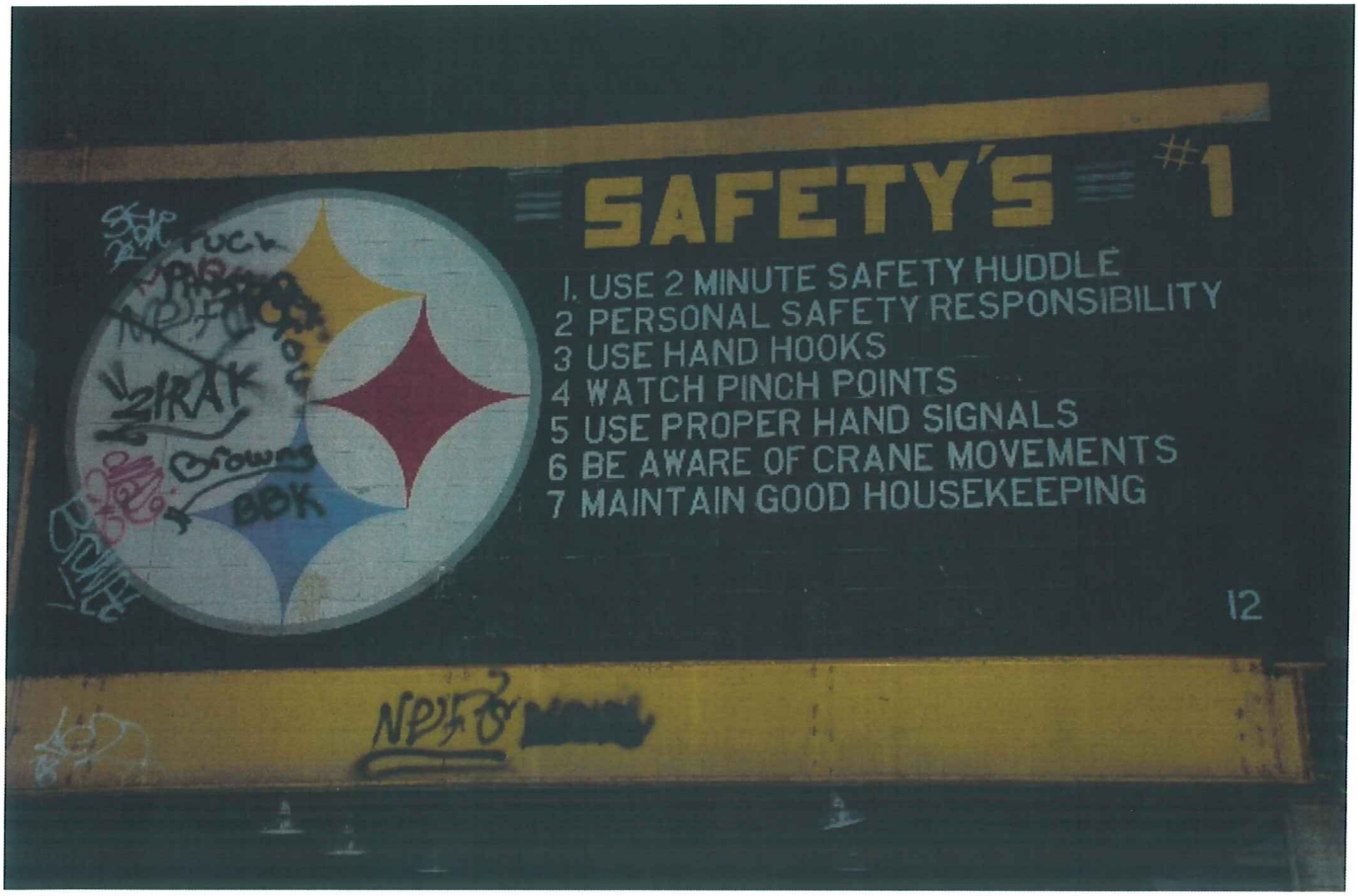

Figure 63: Inside the large AC Power House building, the remnants of the Steel Industry work practices remain. (1)

V. References

1. Photo of Carrie Furnace Site taken by Elizabeth Baran, LDI Team member, during tour on November 17, 2007.
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19. VisitPittsburgh Annual Report 2007.

20. 4larryogay.20megs-free.com/photo/html
21. www.tourismjunction.com/images/zion-national-park-utah.jpg

Figure 64: An iron ladle car, lined with fire brick, which used to carry the molten iron across the river via the Hot Metal Bridge remains on site on a section of railroad track in the middle of the lot. (1)

Appendix A Additional Resources

The following are additional resources collected during this study that readers may find helpful.

- **Western Pennsylvania Brownfields Center**

  The WPBC is a neutral platform that brings together a variety of resources including researches public officials, property owners, and developers to uncover opportunities and strategies for development of the region's brownfields. More information is available at: www.cmu.edu/steinbrenner/brownfields

  Deborah Lange, PhD was contacted as part of this study: 412-268-7121, dlange@cmu.edu

- **The Money Generation Model Version 2**

  Multi page excel workbook that estimates the direct and total and economic impacts of visitor spending. Inputs include number and types of visits, spending profile for each segment, and sector specific multipliers. More information is available at: web4.canr.msu.edu/mgm2/MGM2web.htm

- **Sloss Furnace Foundation**

  Additional information about the Sloss Furnaces is available at: www.slossfurnaces.com

  Robert Rathburn, PhD was contacted as part of this study: 205-324-1911, Robert.rathburn@ci.birmingham.al.us

- **VisitPittsburgh**

  VisitPittsburgh is a non-profit organization dedicated to generating convention, trade show, and leisure travel business for the Pittsburgh region. More information is available at: visitpittsburgh.com; Phone: 412-281-7711; General Email: info@visitpittsburgh.com

  Julia Clough, Corporate Marketing Director, was contacted as part of this study: Julia.clough@visitpittsburgh.com

Figure 65: LDI Project Team on tour of Carrie Furnaces lead by Rivers of Steel representative Jeff Leber (1)