South Works

A New Vision for South Chicago

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Abstract

The masterplan for South Works integrates multiple forms of transit converging to create a southern anchor for the city of Chicago. The extension of the greenline light rail, the establishment of a ferry system, and the integration of pedestrian connections reduces vehicular dependency, and creates a commercial hub for the city. The transit hub links several forms of transportation in one structure and connects South Works to the city of Chicago. Commercial uses and open space are integrated with the transit hub promoting activity and use. The program for South Works embraces the mariner as it calls for the creation of a large marina with the possibility of year round mooring. Docks along the canal for easy access to retail and transit, and the establishment of a ferry dock for commuters and tourists ensure lakeside activity. All four existing concrete ore wall remain on the site for a historical link to the site’s past. The smaller pair of walls near the canal slip are built upon with retail and office uses, creating a unique market experience along the canal side. The larger pair of walls are preserved as the main historical element to the site. Within these walls is a long pedestrian corridor and parking for almost 200 cars. A small garage with a turf green roof disguises the parking to look like a park. On the west side of these larger ore walls is a museum commemorating the steel industry and the rise of labor unions in Chicago. The museum directly relates to these walls and uses them as a historical and educational element. One large iron ore laker will be permanently docked in the canal slip to compliment the museum and further educate visitors on the steel manufacturing process that took place here for over 100 years. At the terminus of the canal is a large civic space that acts as the gateway into the new neighborhood. Within this civic space is a large monument that rises above all surrounding buildings. This monument is a symbol of the steel industry and relates to the museum and ore laker. Around the monument base are small vendors and retail kiosks to promote activity in this space.

To the north of the canal slip is a long linear park that connects the civic space and transit hub to the lakefront park system. Just to the north of this park is a mixed use district that transitions into medium density housing. The north side of the canal, near the mouth, is built up as a large mixed use complex that integrates housing, retail, and parking. Just east of this is the beginning of the breaker wall walkway; a mile long walk that integrates wind and solar power to light the walkway and the lakefront park.
The redevelopment of this site creates density, jobs, and revenue for the city. The preservation of the existing concrete walls gives people a glimpse to the past and allow for great pedestrian movement out to the lake. The transit system provides residents and visitors several options of navigating the city via rail, bus, bike, or boat. The retail integrates with the existing walls along the south edge of the canal provides a unique shopping experience not found anywhere else in Chicago. With the Museum of Science and Industry only a few miles north of here, the integration of the Museum of Steel Heritage would expand on Chicago’s great museum campus. The redevelopment of this site creates a retail and entertainment hub for the south side and increases the overall density of the city.

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Introduction

South Works Chicago, once a sprawling metropolis of smokestacks and blast furnaces is now a post-industrial landscape. Sprawling almost 600 acres along the South Chicago lakefront, this place at one time employed nearly 20,000 workers of all nationalities. After its closing in 1992, the 576 acres has been left un-used, separating South Chicago from the lakefront. The South Works brownfield is located approximately 10 miles south of the Loop in downtown Chicago between 79th and 90th streets. Less than 2 miles from I-90, the Chicago Skyway, and only a few miles from I-94, this site is easily accessible by car. Public transportation in the vicinity includes a Metra-Rail stop 4 blocks from the site, the South Shore station about 3 miles away, and the Green Line which ends nearly 4 miles north of the site. The Indiana border is only 3 miles east and the breaker wall for the South Works harbor is situated with the majority in Indiana. The site is larger than the Chicago loop in area and provides a great opportunity to add an entire new neighborhood to Chicago’s south site. The existing street grid abruptly cuts off at the border of the site and could easily be extended through the site to the lake. South Chicago could, for the first time in 150 years, be re-united with the lakefront.

The site has been cleared of all buildings, except for a series of fortress-like concrete walls spanning a half mile along a canal slip. Two of these massive walls stand 30' tall and 15' wide spanning the width of the site like ruins of an ancient fortress (Fig. 1). Another smaller set of two walls are located adjacent the canal on the south edge reaching only 15’ in height. These series of concrete walls along with the canal are the only physical link to the past and provide an opportunity to tell the story of steel heritage and the rise of labor unions. The canal slip slices into the site 200’ wide and about ¾ of a mile long. This slip was used by giant barges called lakers, to deliver raw iron to the steel mill. The scale of these features is gargantuan, dwarfing any human nearby. Jutting out from the mouth of the canal is a breaker wall...
nearly a mile long. This breaker wall creates a large, calm harbor and shelters the canal from the violent storms of Lake Michigan.

South Works provides a great opportunity to expand Chicago's neighborhoods and lakefront parks system. The site stretches over a mile and a half along the lakefront and as of now, completely separates the existing neighborhoods from the lake. A large slip used by lakers to transport raw iron ore cuts the site in half and provides a great opportunity for civic and retail along the canal. The only problem with the canal is the size of it. Since it was used to dock massive iron-hauling lakers (Fig. 2), the slip is nearly 200' wide, dwarfing any pedestrian walking along it. The large iron ore storage walls look like ruins of an old fortress and add great character to the site.

This massive landscape is of huge value to the city of Chicago as it is the largest unused parcel of land remaining on the lakefront. Once the economic backbone of South Chicago, this steel mill once employed 20,000 residents of the south side. With the closing of the steel mill, the south side lost its major employer and economy. Now all that remains is the sprawling stretch of land that divides the existing residential from the lakeshore. This may seem like a problem, but in actuality it is a major asset to the city. At almost 600 acres, it is larger than the loop in size and located directly on the lakefront, making it prime real estate. With much of the remediation already done, all that remains is the proper planning and development of Chicago's new lakefront neighborhood.

The challenge of developing this site is the delicate balance of mixed uses, transportation, economic classes, and diversity. With lower class housing located directly adjacent the site, the risk of gentrification is apparent. Planning the development of South Works with the existing residents in mind is a necessity. Parking is another issue that must be dealt with in all urban projects. This site is unique in that it is composed on steel slag, which is nearly impossible to cut through. This eliminates all underground parking options, forcing parking to be in the form of surface lots or garages.
Background

After the great Chicago Fire in 1871, industry migrated south to what is now South Chicago (Fig. 3). This place flourished with trade utilizing the Calumet River and existing railroads for growth. In 1875, the Brown Iron and Steel Company opened on the Calumet River, followed by South Works in 1880. After the opening of the South Works steel mill, thousands of jobs were provided to South Chicago residents. Commercial Avenue and 92nd street became a main commercial hub. Since the mill operated 24 hours a day, this place became a bustling commercial center serving workers from every shift.

At the time South Chicago was annexed in 1889, half its residents were born outside the country. The neighborhoods closest to the mill, like the Bush, were home to terrible living conditions, constantly covered in soot from the blast furnaces. Wealthier workers located in the southeast portion of South Chicago, known as ‘millgate.’ In 1919, a major, unsuccessful strike led to the hiring of immigrant labor, boosting the Mexican population here. In 1992, South Works closed to concentrate production at the larger Gary Works plant. In the 2000 census, 70% of the population here was black, 27% Mexican, and 13% white. The closing of this major industrial behemoth resulted in the largest brownfield on the Chicago coast.

Brownfields are located in nearly every city in the United States. Sites such as abandoned gas stations, salvage yards, warehouses, factories, rail yards, and many more plaque communities across the entire globe. It is estimated that nearly 500,000 of these sites exist within the U.S. alone. These eyesores are essentially diamonds in the rough, if developed properly. These brownfields are often located in highly desirable areas such as waterfronts or downtown areas. With careful planning and development these sites
can be the catalyst for economic and ecological revitalization across the urban environment.

Developing brownfields makes complete sense environmentally, but does it make sense financially? This is one of the main issues when confronting brownfield development. Banks will not loan money to developers if they have good reason to believe they will not get it back. Developers will not invest the time or money into brownfield developments if there is nothing to gain besides a pretty place to take a walk. Not only is it an issue of planning the site out so it will work, but also an issue of cleaning up the waste that is there. This is no cheap and easy task. After years of industrial use, which could include chemical and biological wastes, these sites are more than just garbage on the surface. These waste products are often exposed directly to the soils which contaminate the land beyond development. The clean up for these types of contaminations can be very expensive and time consuming.

Once brownfield sites are cleaned up, how can they be made into a profitable investment for a city? Depending on the amount of cleanup involved, these brownfield can prove to be quite profitable. Usually located in areas that have been extensively developed, these sites seem to be missing links in the urban fabric. Developing these areas has potential to not only link neighborhoods back together, but also create an immense amount of revenue for the city through commercial taxing and market rate housing. Many brownfields also house old factory and machine buildings that add unique character to the area that naturally attract visitors. Incorporating old building such as these into a contemporary development allows ties back into the history of the site along with great aesthetic qualities.

When developing brownfield site into mixed use communities, several factors must be taken into consideration such as the local demographics. Since most brownfields are old industrial sites surrounded by residents that used to work in these places, the local residents must be taken into consideration first. Gentrification is a major issue in mixed use brownfield developments, since new developments that are desirable to live in are typically expensive. When the cost of housing is too high for middle/lower class residents, the economic diversity is gone. How can a desirable place be created adjacent a lower class neighborhood without driving out the local residents? Since most residents have lived in these areas for years, it is very important not to drive them out with high cost developments that cater only to the upper classes. Reserve a certain amount of affordable housing units within the development that allow low income people to reside.
Diversity in every aspect is crucial to a successful and desirable place. A wide variety of people, income, housing, commercial, and recreation must be implemented together to create a desirable and unique place.

Redeveloping this site into a new neighborhood knits back together the south side and reinforces the sense of community here. The canal is a great asset to the site along with the ore walls. These features are unique to this site and provide great opportunities to create a story about the old South Works Steel Mill and the employment and revenue it generated for the south side. The existing breaker walls create a harbor ideal for a marina that connects up to other harbors along the waterfront and Navy Pier. Although the Metra-Rail is only a few blocks from the site, and the South Shore and Green Line just a bit further out, the transit options are still very limited. The site itself is over a half mile wide by almost 2 miles long; much further than anyone cares to walk. The site needs better transit access if it is going to be developed around the transit systems.

This land once provided 20,000 jobs for south siders, with the size of this site, it is reasonable to fit at least 10,000 new homes for south siders. According to The New Transit Town a minimum of 15 dwelling units per acre (du/ac) average is required for any urban Transit Oriented Development (TOD). With a 576 acre site, 10,000 units would result in a 17 du/ac average and a whole new neighborhood for Chicago’s south side. Planning these new communities is a very delicate process however, since gentrification is a major issue facing urban redevelopment. In order to prevent gentrification, this site must include a sufficient number of affordable units. These units must have prime access to the transit system; therefore this site needs better transit options and access. The green line is only 4 miles north and can be extended down into the site, providing prime access to the rail line and downtown Chicago.

Transit connections are crucial to a walkable and sustainable community. Less vehicles on the road makes a more pedestrian oriented streetscape. Given the high costs of gas, decreasing farmlands, and increasing commute distances, transit oriented development is becoming more and more popular. Throughout the nation the average household spends 19 cents of every after-tax dollar on transportation. Commutes from suburbs into the metropolitan core may exceed triple the time in the automobile than it would by rail. Creating places integrated with transit reduces the time and cost of getting to work. Transit hubs are perfect places to develop retail and commercial with. Integrating retail and commercial with transit stimulates the area economically and
socially. Linking South Works to the CTA network not only by bus, but also by rail truly allows this new neighborhood to be an integral part of the city of Chicago.

Three emerging trends are associated with Transit Oriented Development (TOD) and bring new light to urban and suburban revitalization. The first is the resurgence of investment in downtown. This urban renaissance can be associated with demographic changes, immigration, the aging of baby boomers, and the increase of non-family homes. These changes create an increased market for smaller homes and urban cores are once again being seen as attractive and lively places to live and work. The second trend is the maturation of American suburbs. With the increase of size and diversity of income and ethnicity, suburbs are struggling to become cities of their own. These suburbs are being challenged to create more than just ‘bedroom communities,’ they need to address residents’ desires for urban amenities. The third trend is the renewed interest of the rail travel and investment. Nearly every major city in America is planning some form of urban rail or bus system. At the convergence of these trends is an emerging market for mixed use, walkable ‘transit villages.’ These types of developments could greatly reduce transportation costs and revitalize the urban economy with a diverse mix of residents and housing costs.

This project demonstrates how many cities across the globe have highly desired land, it simply needs to be cleaned and developed properly. Brownfields possess great potential for injecting density into an abandoned industrial wasteland. Implementing transit and walkability establishes connections to nearby neighborhoods and cities. Since many brownfields sit amongst some of the highest valued and most desired land, clean up and development seems to be written all over these sites. A successful project that incorporates site context with history and culture of the place, while including mixed use structures and all ranges of housing demonstrates that brownfields are a crucial point in urban renewal. A project that links communities through transit while providing services for people in all walks of life boosts the economy and creates desirable places. Places like...
these will increase diversity, reduce housing and transportation costs, and may be the answer to urban renewal.

Moving back into the city is a growing trend as major cities across the U.S. are finding. Embracing the urban lifestyle is becoming popular once again. Rising gas prices and longer commutes are spurring relocation back to downtown. Careful planning for these trends can produce great places to live with no need for automobiles. Planning transit hubs in neighborhoods that connect to downtown and other amenities such as airports and regional transit can reduce infrastructure costs of new roads and the dependence on the automobile. The New Transit Town with foreword by Peter Calthorpe explains why developing transit hubs in communities can greatly revitalize these places. These hubs are natural cores of activity and if developed in conjunction with retail and commercial, can create great places that allow residents to do anything they need to do without ever using an automobile.

Walkability is a one of the key components in Transit Oriented Development. Creating Walkable Places demonstrates techniques on how to minimize the automobile presence and maximize pedestrian activity (Fig. 5.) Practices shown in this book such as placing parking in the rear of buildings minimizes automobile presence and conflict with pedestrians. These types of practices will help me in the design process when thinking about storefronts, parking, and circulation.

Building to the sidewalk to establish a streetscape and slow traffic can create places that are much more walkable and pleasant to be in as opposed to the sub-urban mega retail centers that sprawl across our ever diminishing agricultural lands. Places like these are only accessible by vehicle and nearly impossible to walk. For those without vehicles, public transportation is the only option for getting to these places and if the transit system doesn’t connect these areas, then walking is the only option. Places like these are the result of poor planning and the dominance of the automobile on our society. City Comforts gets down to the details of what makes a place. Details such as sidewalk widths, police posts, bulletin boards, corner grocery stores, bus shelters, and sun orientation make urban places unique and desirable.
Problem Statement

The battered south side has been slowly crumbling since the decline and closing of the massive South Works steel mill. Thousands of residents depended on this steel mill for their livelihood and with its closing came a great struggle for the south sider. Such a massive corporation closing and putting this many people out of jobs created a huge dent in the south side economy. Today, driving down US 41 near the South Works brownfield, the majority of housing is crumbling, vacant lots dot the roadside, and a rusted chain link fence blocks all access to the lake (Fig. 6.) Just out of reach of the CTA’s green line, this neighborhood must rely on the metra rail, or the bus to navigate the city. The nearest lakefront park is located at Rainbow Park, just north of the site but still a few miles away for those living south of 87th street. For those entering Chicago via US 41, South Works is essentially the gateway into the city. At its current condition, it provides a bad first impression of the city.

Figure 6
Project Significance

This project plays a huge role in the future of not only the South Chicago neighborhoods, but the city as a whole. This project impacts the entire 'region' being the area between Chicago and Michigan City, IN. With so many transit options being integrated, the local resident is not the only one affected by this development. Tourists and out of state commuters are also positively affected by this new development with more options of getting downtown and a new center of activity in the Chicago metropolis.

To the local residents, this new neighborhood brings jobs, tourist revenue, housing, and entertainment to their front door. This is essentially the southern anchor point for the city of Chicago with entertainment, retail, commerce, transit, recreation, and housing. The local residents no longer have to travel north to find a decent parcel of land on the lakeshore; it is be easily accessible and linked directly into a network of parks that extends to the loop and beyond. Residents can get on their bikes and ride all the way to the loop with virtually no vehicular conflict. They can walk down to the canal for a nice meal or do some shopping at one of the many various retail or department stores in the newly founded commercial hub. All the amenities of the city are brought to the south side in the form of transit, along with a new hub of activity for the city at South Works.

This project helps revitalize the battered and seemingly forgotten south side. As the steel mill provided jobs for 20,000 residents, the development of this site will reasonably surpass that number. Integrated with housing for the bare minimum of 10,000 residents, this place is one of the premier places to live in the city of Chicago. Whether residents are commuting to the loop, or working within South Works, this new neighborhood marks the beginning of a new era for the south side; an era of health, an era of activity, an era of commerce. This new vision for South Chicago is one of great hope and achievement. Once, one of the largest steel manufacturers in the country this development is now one of the largest and most desirable neighborhoods in the city of Chicago.

For the tourists, many new amenities await including entertainment, recreation, nautical activities, retail, and a new museum commemorating the rise of labor unions and the affect of steel on the growth of America. The proposed ferry system gives Hoosiers a new option of getting to the loop with great views of the skyline not seen from the
conventional route of trains and highways. This also works for Chicago residents trying to get out of the city and experience Indiana’s breathtaking sand dunes. By establishing a ferry system that links the loop, major marinas, South Works, and the Indiana Dunes (Fig. 7,) the urban dweller can easily escape the hustle and bustle of the city for a relaxing day at one of the many remote beaches on the Indiana lakeshore.

This new hub provides an additional destination point for the region with deep history and culture along with art, entertainment, and commerce. The commuter is served in several ways with this development. Additional modes of transportation are introduced including boat, rail, and bike. By introducing many modes of transportation converging at South Works (Fig. 8,) this place is a unique meeting place and anchor that promotes alternative modes of transportation throughout the entire southern lakeshore.
Project Requirements

This brownfield site posed several constraints to development, many of which have already been dealt with. This land, upon the establishment of the steel mill over 100 years ago, was composed of steel slag and virtually impenetrable. Because of this, below grade parking was out of the question. All parking will need to be in surface lots or preferably garages.

Main goals for this site included the following:

Integration of multiple modes of both local and regional transit with the site
Linking of this site to the existing community and its rich heritage
Expansion of the multiple modes of transit into this site, creating an urban TOD
Creation of a pedestrian oriented community/neighborhood
Creation of revenue through tourism/commercial
Creation of a south anchor point/gateway community to Chicago
Establishment of a neighborhood with an average density of 20 du/ac
Configuration of open spaces as shared semi private and public spaces

Program

General Program for Entire Site
Parking for 15,000 Cars
   No subgrade parking since this site is composed of steel ‘slag’
   Parking structures created within retail and residential structures
   Parallel parking on all roads, preferably on both sides of street
Narrow Streets
Housing for 10,000 Residents
   Stacked Townhomes
   High rise apartments/condominiums
   Multi-family housing
   10% affordable housing integrated within, not segregated
100 acres of open space
   Recreational spaces with ball fields, ect.
   Re-use of old ore wall(s) to create link to the past
   Dog park(s)
   Green Network within site connecting all open spaces to lakefront parks
   Civic spaces created around retail and transit hub
Transit Hub
Trolley within site
Bus routes around/through site
Light rail ‘L’ extension into site (from green line: 63rd/Cottage Grove)
Hub created in conjunction with open space, retail, at highest density area
Connect local transit routes to regional transit stations (south shore, metra rail)

Bike lanes created on all streets except minor residential streets
Create marina within harbor and canal
  Possible lakefront boat tours up to Navy Pier
  Canal docks to scale down the size of the slip
  Canal docks will encourage activity along docks via water

Police precincts
Institutional
  Extend Museum Campus further south along the lakefront
  Create community college/branch of another university
  Create new high school
  Expand/create new elementary school

Power generation in form of wind turbines along the breaker wall

**Program Specific to Canal Area**

- Establish Transit hub to link bus, boat, car, and rail
- Major mixed use/retail corridor along canal
- Create docks for boaters to utilize canal
- Establish at least 2 Pedestrian links across canal
- Create buffer along 87th st. from the Solo Cup Property
- Retain Ore Walls as Historical Element integrating a Museum, markets, and recreational uses
- Connect existing neighborhoods to Lakefront through parks and boulevards
- Utilize breaker wall as pedestrian walk, wind and solar power
- Create a Marina to serve South Chicago
  - Establish a dock to house a commuter ferry
  - Establish a permanent boat mooring facility
- Create a landmark civic space that can be seen from a distance
Design Process

Location

The site is located approximately 10 miles south of the Chicago Loop (Fig. 9) between 79th and 90th streets. It is 576 acres located on the lakefront only 3 miles from the Indiana border. The site is larger than the loop in size and the largest post industrial landscape in Chicago.

![Figure 9](image)

Inventory/Analysis

All buildings have been removed from the site, save for a series of concrete walls which were used to store iron ore. These massive walls stand 30’ tall and 15’ wide spanning the width of the site like ruins of an ancient fortress. These walls along with the canal are the only physical link to the past and provide an opportunity to tell the story of steel heritage and the rise of labor unions.
The canal slip slices into the site 200’ wide and about ¾ of a mile long. This slip was used by giant lakers to deliver raw iron to the steel mill. The scale of these features is gargantuan, dwarfing any human nearby. Jutting out from the mouth of the canal is a breaker wall nearly a mile long. This breaker wall creates a large, calm harbor and shelters the canal from the violent storms of Lake Michigan.

Of the constraints, there are several large concrete walls that have not yet been removed (Fig. 10.) Since they have removed every building of this behemoth steel mill, including a power plant, the concrete walls remain for a reason. Whether it is because they are virtually unmovable, or remain for historical purposes, these massive walls prevent development on the south end of the canal. The series of concrete walls are located only 35 feet from the canal and are juxtaposed 15, 100, and 200 feet apart.
This provides both opportunities and constraints. Any development in this area will be separated by 30' tall fortress like walls (Fig. 11.) Prime canal front real estate is sacrificed by the preservation of the 2 walls bordering the canal. On the other hand, these walls create very exciting and unique opportunities for pedestrian corridors linking the west end of the site directly to the lake. Within these walls many activities can take place such as a skate park corridor, recreational fields, art exhibits, and general park space.

Figure 11

The obvious opportunities include the reclamation of land for the city, prime real estate of the lakefront and an enormous harbor. Great views to the skyline can be captured along the shoreline and the breaker wall present several opportunities ranging from simple pedestrian walkways, to solar and wind power. The preservation of these concrete walls creates a unique aesthetic that shows what originally occupied the site.
Case Studies

Case studies in *Urban Land Magazine* such as the transit village for Hyattsville, Maryland spurred the thoughts of parking as a tool to encourage transit use. In Hyattsville, the parking is minimized to reduce vehicle use and increase transit use. The metro transit station is part of a village green to which the buses are organized around. The integration of the transit hub with a park further promotes use of transit as it allows users to relax in the park while waiting on a bus instead of a dirty, concrete covered bus station. The use of LEED technologies is also integrated in this plan with green roofs, biofiltration, and stormwater management. While this plan is still in the works, it demonstrates how the use of transit as a core can greatly increase revenue from housing, provide jobs through commercial use, and maintain the floodplain and stormwater runoff.

The Market Commons at Clarendon is a great example of a redeveloped site in an urban area (Fig 12.) This project, once a surface parking lot, demonstrated how mixed use pedestrian oriented developments can be extremely successful. Placing parking in garages in the rear of buildings allows for the urban storefront feel. Minimal use of road in this project (Fig. 13) allows pedestrians to dominate the 14 acre site. 387 residential units along with 303,000 square feet of retail space make this mixed use development a dense urban infill. Taking advantage of the pedestrian appeal, the design draws people into this site with the density of residential and amount of retail storefront blocks.

![Figure 12](image1.jpg)

![Figure 13](image2.jpg)
The Crossings in Mountain View California is a former shopping mall, an 18 acre infill site that has been redeveloped into a new neighborhood in San Mateo. The place is oriented around the San Antonio Caltrane commuter station (Fig. 14.) Walkable and bikeable streets make this transit oriented development successful. San Mateo city buses connect at the rail station to connect adjacent neighborhoods (Fig. 15.) Houses are located less than a 5 minute walk to stores and the transit hub. All homes are located less than a 2 minute walk from any park. This high density TOD achieves 30 units per acre average.
Design Concepts

Concept 1:

The first concept deals mainly with circulation across the canal slip and around the site. This concept incorporates a network of pedestrian bridges that span the canal slip. These bridges add both functional and aesthetic qualities to the canal as they would be elegantly designed with viewing platforms directly over the slip. The main vehicular circulation around the site would be in the form of a ring road that follows the lakefront and crosses the slip at the mouth.

Figure 16: Conceptual Plan 1

The development would be expanded out towards the lakefront with large open space pockets at key vista points. With a narrower lakefront park, much of the open space would be incorporated internally, to serve residents towards the west side of the site. These open spaces would be in the form of pocket parks, civic plazas, and larger neighborhood parks. The terminus of the canal would be dedicated to community events with a performance venue overlooking the canal slip. This flexible community green would be used for any type of gathering including concerts, festivals, markets, and everyday recreation.

The transit hub for the Green Line light rail would be offset from the canal slip located adjacent south of the green space. Locating the hub just south of the canal axis
provides more open space for the residents and community at the terminus of the slip. This location also provides for a sightline down the space between the ore walls. Commercial and retail will be located adjacent south of the hub to serve commuters and residents with amenities such as daycare, laundry, restaurants, and grocery stores. The northern edge of the canal will be preserved as a linear parkspace that connects the large green at the end of the canal to the lakefront park system. Mixed use development will continue to the mouth of the canal with higher densities overlooking the lake. The south end of the canal will be a canal walk with retail shopping, dining, and lofts that extends out to the loop road and lakefront park.

Concept 2:

Figure 13: Conceptual Plan 2
The transit hub would be located at the terminus of the canal and the sightline would carry through down the canal and out to Lake Michigan.

The southern side of the canal would be reserved for the pedestrian with the first 2 concrete walls removed to make way for a formal canal walk with retail setback 60 feet from the canal edge. The remaining two ‘ore walls’ will be preserved as a pedestrian corridor with recreational and institutional uses. High density housing will be located to the north of the canal with the main retail and commercial hub. Low to medium density housing will be located to the south in the form of row housing and stacked townhomes.

Several pedestrian bridges would span the canal to ease crossing and movement throughout the site. One vehicular bridge would cross in the middle of the slip and connect the commercial district to the north of the slip to the ore walls and housing to the south. Higher density housing will be located along the lakefront and a marina will extend into the harbor to serve south side mariners.
The masterplan calls for the extension of the CTA greenline into the site with the hub located along the axis of the canal. Integrated with the transit hub will be a large open green with commercial amenities to serve commuters using the greenline. This large civic space and landmark will act as the neighborhood center and will overlook the canal slip that opens out to Lake Michigan. The north edge of the slip will be preserved as a linear park space that will act as a pedestrian corridor, connecting the transit stop and existing residential to the lakefront. The north side of the canal mouth will be built up as a major commercial hub with apartments and condominiums over parking and retail. The lakefront park will border this complex and access to the breaker wall will be located here. The breaker wall will incorporate wind and solar power to for lighting along the breaker wall and lakefront park.
Site Details

The breaker wall (Image 1) utilizes wind and solar power to light the walkways and the lakefront park. One vehicular bridge crosses the canal to connect the north and south portions of the site. The bridge is located in the middle of the canal to preserve views out to the lake while maintaining vehicular circulation throughout the site. This bridge spans from ground level on the south side, to the top of the retaining wall on the north side (Image 2). This bridge is constructed as a swing bridge to allow sailing ships access to the end of the canal. The north edge of the canal consists of a linear park with vehicular access and parallel parking. Mixed use structures are located adjacent north of this park. These structures include retail, office, and residential apartments. Parking for these structures can be accessed by the road that runs along the bottom of the retaining wall. A roundabout marks the higher density commercial and mixed use area with parking garages on both sides of large commercial and office buildings. This point acts as a civic anchor point for the north side of the canal. A small formal park steps down from roundabout area down to the linear park in the form of large green terraces. At the canal edge, small piers are constructed for the temporary docking of boats. These docks serve as parking spaces for boaters to access the parks and amenities of the site.
**Retail Walk**

The south edge of the slip is preserved as a formal canal walk. This walkway includes seating, paving patterns, and docks for boats to park and utilize the retail. The entrance to the canal walk includes a large fountain (Image 3) that acts as the gathering and anchor point for this walkway. The fountain consists of terraced pools that spill into each other and with planters throughout for plant life and shade.

All four concrete walls remain in place on the site as a physical link to the site’s original use (Image 4.) The canal walk has access to ‘Iron Ore Markets,’ a series of mixed use structures built directly on the existing two walls closest to the canal. Behind these shops, plazas and café spaces provide for outdoor use. These structures are be serviced from a road running between these two walls and the two walls just south of here. Parallel parking is integrated on both sides of the street for easy access to these shops. Parking is also be integrated inside the larger concrete walls with passive open space connecting out to the lakefront. Residential to the south of the walls is in the form of stacked townhomes with views over the walls to the canal and skyline beyond. Parking is located on grade in a garage below the residential units. Green roofs are implemented wherever possible to reduce the heat island effect of this site.

Inside the larger concrete walls, a parking garage is disguised under a large grass greenroof. From the museum, it seems as though the grass lawn has a small hill. In actuality, the grade would raise 10’ and parking would be implemented beneath the grass roof of the garage. A large walkway runs through the garage to provide easy
circulation in and through the garage. Tree planters would be located along this walkway so the trees could grow up outside the top of the garage (Image 5.) Several large windows would help ventilation and allow the trees to grow up and out of the garage (Image 6.) Existing openings in the walls would remain for pedestrian movement in and out of the walls.

The parking structure inside the ore walls will serve parking needs for the museum and for the retail structures adjacent the canal. This structure provides parking while maintaining stormwater runoff and preserving a pedestrian right of way to the lakefront. The existing passages through the walls will remain to ease pedestrian flow in and out of the garage. The garage capacity is 192 cars divided into two 96-stall sections with a walkway through the middle.
**Streetscape**

The mixed use strip south of the ore walls is a boulevard with parallel parking on both sides of the street. This street is the main north-south connector; a four lane road with a 6’ median containing planters and canopy trees. The plan below shows the use of surface parking and on street parking (Image 7.) The mixed use buildings consist of retail and offices below residential lofts. All roads here have at least one lane of parallel parking to help accommodate parking needs. All surface lots are placed in the rears of buildings, and in higher density areas, garages are built into mixed use structures. All buildings have a minimum setback of 10’ from the curb and tree grates are flush with the ground to ease pedestrian flow.

**Image 7**

Alleys are utilized as pedestrian streets to increase walkability and decrease vehicular conflict. Services are placed in the rear of the buildings to maintain traffic flow on the street.
Image 8 shows the use of paving change and planters to calm traffic. Urban amenities such as bus shelters, kiosks, and seating are incorporated in the streetscape. Wide sidewalks and parallel parking increase the walkability of the streets. Tree grates are flush with the sidewalk to maximize sidewalk space.
Transit Hub and Monument

This area is the main civic space for the neighborhood. It includes a light rail hub for the CTA Green Line, 165,000 square feet of commercial, parking structures, and a large open green (Image 9.) The green line station is located directly on axis with the canal slip to provide views down the canal and to the lake. This is essentially the gateway to this new neighborhood with a large green space for community events and festivals. The large commercial structures provide space for department stores and offices and large curb bump outs decrease the length of street crossings, increasing pedestrian safety. A large monument is the centerpiece of this space with vendors and retail kiosks in the plaza space. The monument is located directly on axis with the canal slip and transit hub. It is part of a 3 piece museum commemorating steel heritage and the American work force.
The museum, located at the west end of the larger set of ore walls, is architecturally similar to that of a steel mill structure. This museum tells the story of the rise of steel in the U.S. and its effect on our cities today. Other elements incorporated in the museum include steel art installations, the rise of the American labor union, and the uses of steel today. The existing ore walls help give visitors a feel of what used to be here, and how it all worked. Just to the north of the museum, permanently docked in the slip, is an iron ore laker; a large barge that was used to haul raw material from all over the world to this very site. The laker is used as part of the museum and as a historical element.

Adjacent the ore laker is a dock for the commuter ferry that runs from Indiana to the Chicago Loop. This ferry caters to those commuting to Chicago for work, and visitors who like a different view of the city as they travel downtown. A small kiss n ride drop off area is be located adjacent the ferry dock for easy access to the ferry.

The monument is designed to be a symbol of the steel industry in South Chicago. The 300' tall 'I-beam' symbolizes the rise of steel and how it shaped the cities we know today. Rising from a base of raw iron, the steel monument includes four observation balconies and one enclosed observation deck on top. These decks are reached via stairs or elevator on the sides of the monument. The plaza space around the monument has vendors for food and large canopy trees to create a pleasant microclimate. (Image 10)
The bird’s eye view of the canal shows the various uses implemented throughout the design. The large civic space with the monument anchors the mixed use developments along the canal. This large civic space is the first impression one gets by entering this site via light rail. The relationship between the museum, monument, and iron ore laker can be seen more clearly as 3 related parts.
Conclusion

The redevelopment of this site not only accommodates more housing and jobs, but it also embraces the site’s rich heritage. Since its original development in the late 1800’s, the site has been extremely productive, providing thousands of south siders jobs. Redeveloping the site to accommodate these jobs and provide thousands of new homes for the city increases the overall density of the city and provides more money for the neighborhood and city as a whole. The reclaiming of the lakefront allows residents to utilize one of their best amenities, Lake Michigan.

The extension of the CTA green line allows those without a car easy access to downtown and the city as a whole. Implementing transit into this site increases the use of the site, and reduces vehicular use, cutting back on CO2 emissions. The lakefront bike trail that connects to the Loop allows residents access to a trail with virtually no vehicular conflict. Preserving all existing concrete walls embraces the historical elements of the site and educates people on how the steel mill operated.

Streets with parallel parking cuts down on the amount of garages needed throughout the site. With surface lots located in the rear of commercial buildings, the streetscape is be pedestrian friendly and conserves surface space. One shared-use bridge, and one pedestrian bridge cross the canal slip and increase north-south circulation through the site without sacrificing views down the canal to the lake. The vehicular bridge is the north-south axis connecting the mixed use strip on the south to the larger commercial hub just north of the canal.

A large marina inside the harbor caters to south side mariners and a large permanent boat mooring garage is used to store boats during the winter. The breaker wall takes advantage of wind and solar power to help light the parks. This site is a unique place unlike any other. The massive ore walls and canal integrated with parks and open spaces create a new neighborhood that acts as a model for new brownfield redevelopment.
Sources (Needs to be updated)


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