

US PIPE/WHELAND FOUNDRY MASTER PLAN:

Chattanooga, Tennessee URBAN DESIGN ASSOCIATES

FEBRUARY 2008



US Pipe/Wheland Foundry Master Plan

PREPARED FOR

Pipe Properties
Perimeter Properties
The Lyndhurst Foundation

FUNDED BY

The Lyndhurst Foundation

MANAGED BY

RiverCity Company

CONSULTANT TEAM

Urban Design Associates
LaQuatra Bonci and Associates
Walter Kulash, P.E.
Zimmerman / Volk Associates, Inc.
ZHA, Inc.

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Preface

THE US/PIPE WHELAND FOUNDRY MASTER PLAN is a vision plan for the reuse of a 141-acre industrial site in Chattanooga based on sustainable development principles. The plan outlines a mixed-use development based on current commercial and residential market studies, and establishes an urban design framework of development blocks, streets, parking, and open space. The mix of uses is flexible within that framework to respond to future market conditions and demand.

Located midway along the Tennessee River between the two most visited attractions in Chattanooga, the Downtown Aquarium and Lookout Mountain, the development will become an anchor for the revitalization of south Chattanooga and a new gateway to the city. In February, 2008, cleanup of the US Pipe site is well underway, and environmental clearances have already been secured for the Wheland site. A significant investment in on-site storm water infrastructure is already in place. The next step will be to attract private developers and to secure public investment that will affirm and implement the bold vision for the US Pipe/Wheland site described in these pages.



PORTRAIT OF EXISTING CONDITIONS An illustrative drawing showing the existing conditions of the site and the surrounding area



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Introduction

VISION STATEMENT

“There was a clear consensus that this site represents a unique opportunity in the history of Chattanooga - one which allows us to celebrate our industrial heritage while making a bold step forward to create a distinctive 21st century place.”

The project should embody principles of environmental responsibility including the adaptive reuse of distinctive historic buildings

The project should include diverse housing types, support innovative businesses, and be an economic generator for the region.

This new neighborhood should have an attractive and engaging mix of uses in a town-center type setting that will attract young people, inspire creativity and includes spaces for art and the performance arts.

This new neighborhood should create a visually distinctive gateway entrance to the city with strong connections to the CBD for all modes of transportation and transit.

The open space plan should include passive and active public space that create a new address on the Tennessee River that fully takes advantage of connections to Ross’s landing, the Riverwalk, and nearby National Park lands.

THIS MASTER PLAN for the redevelopment of a brownfield site in Chattanooga is the result of an eight month planning process. The 141-acre river front industrial property, formerly the location of two Chattanooga based companies, US Pipe and Wheland Foundry, is a strategic gateway to the city from interstate I-24 and from communities to the south, west and east.

The goal of the owners is to create a high quality mixed-use development containing residential, retail, office, technology, and recreational uses. The built project must be sustainable, including environmental cleanup, ecological balance, energy efficiency, and green building technology, and should address the social, financial, and entrepreneurial aspects of responsible redevelopment.

The pre-development process was managed by the RiverCity Company on behalf of the two local property owners, Perimeter Properties and the Lyndhurst Foundation, who funded the master plan study. RiverCity engaged a consultant team to prepare a master plan for the site:

- » Urban Design Associates – Lead firm, urban design, planning
- » LaQuatra Bonci Associates – Landscape design
- » Walter Kulash, P.E. – Transportation
- » Zimmerman Volk Associates – Residential Market Study
- » ZHA, Inc. – Commercial Market Study

The planning process for the US Pipe/Wheland Foundry site was highly collaborative between the owners, RiverCity, and the consultant team and was completed in three phases, including outreach to over 100 key community stakeholders:

PHASE I Data Base and Analysis: Understanding

PHASE II Design Charrette: Discovering

PHASE III Final Plan: Deciding

The vision for this document is built on a history of public planning processes including the adopted downtown and South Broad plans, and the publicly-generated principles contained therein. The successful outcome of the master planning process is best summarized by the vision statement adopted by the ownership group, illustrated in the box to the left.

The report that follows includes: overall urban design plan, including a Phase I plan and development program; sustainable development plan; detailed description of the key initiative areas; and master planning background. The residential and commercial market studies are separate documents.



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Urban Design Plan

THE DESIGN AND DEVELOPMENT PRINCIPLES are the result of a collaborative process between the ownership group, stakeholder citizens, and the consulting team. These principles were developed at an August 2007 working meeting, and summarize the main themes that emerged from the May 2007 focus group meetings which included strengths, weaknesses, and visions for the project. These draft principles were further edited and refined to their present form at the August 2007 design charette, and are the foundation with which decisions will be guided.

- 1 Creation of a 21st Century gateway image for Chattanooga and for the South Broad neighborhood
- 2 Creation of a place of commerce and art that inspires creativity, nurtures innovative businesses, and becomes an economic generator for the region
- 3 Mix of employment opportunities, including high technology, retail, service, light industrial, and other
- 4 Affordable housing in an urban street grid for a range of age groups, life styles, and incomes
- 5 Vibrant pedestrian friendly village center with retail, housing, offices, and public spaces
- 6 Connections to the Tennessee River and the open space and trail networks of Chattanooga and region
- 7 Connections to the employment, service, educational, recreational, and cultural assets of Downtown Chattanooga by bikeways and public transit (shuttle bus, streetcar, water taxi)
- 8 Large and small parks and recreational amenities for residents, workers, and visitors
- 9 Highest standards of environmental responsibility and state-of-the-art sustainable design and practices
- 10 Preservation and celebration of the industrial heritage of Chattanooga



ILLUSTRATIVE MASTER PLAN The former US Pipe/Wheland Foundry site will be transformed into a new, mixed-use district within the City of Chattanooga.



New development on Chattanooga's Tennessee riverfront



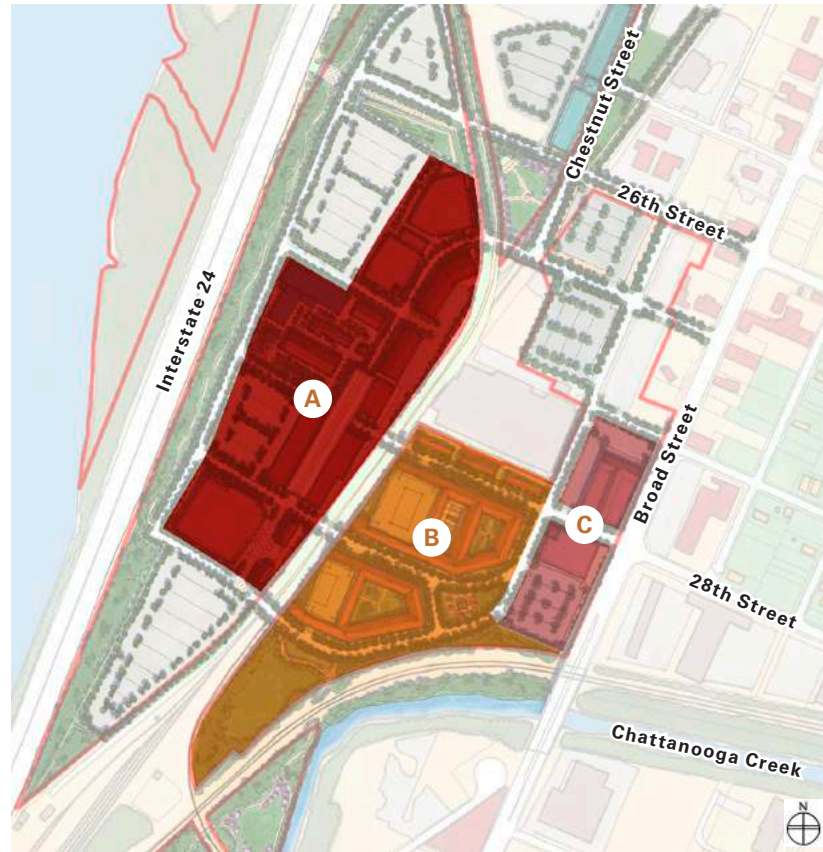
Chattanooga Riverfront and Riverwalk



Keystone Commons, East Pittsburgh, Pennsylvania

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Phase I Plan



A) FOUNDRY ROW **B) PHASE I RESIDENTIAL AND PARKS** **C) BROAD STREET RETAIL**

PHASE I DEVELOPMENT DIAGRAM

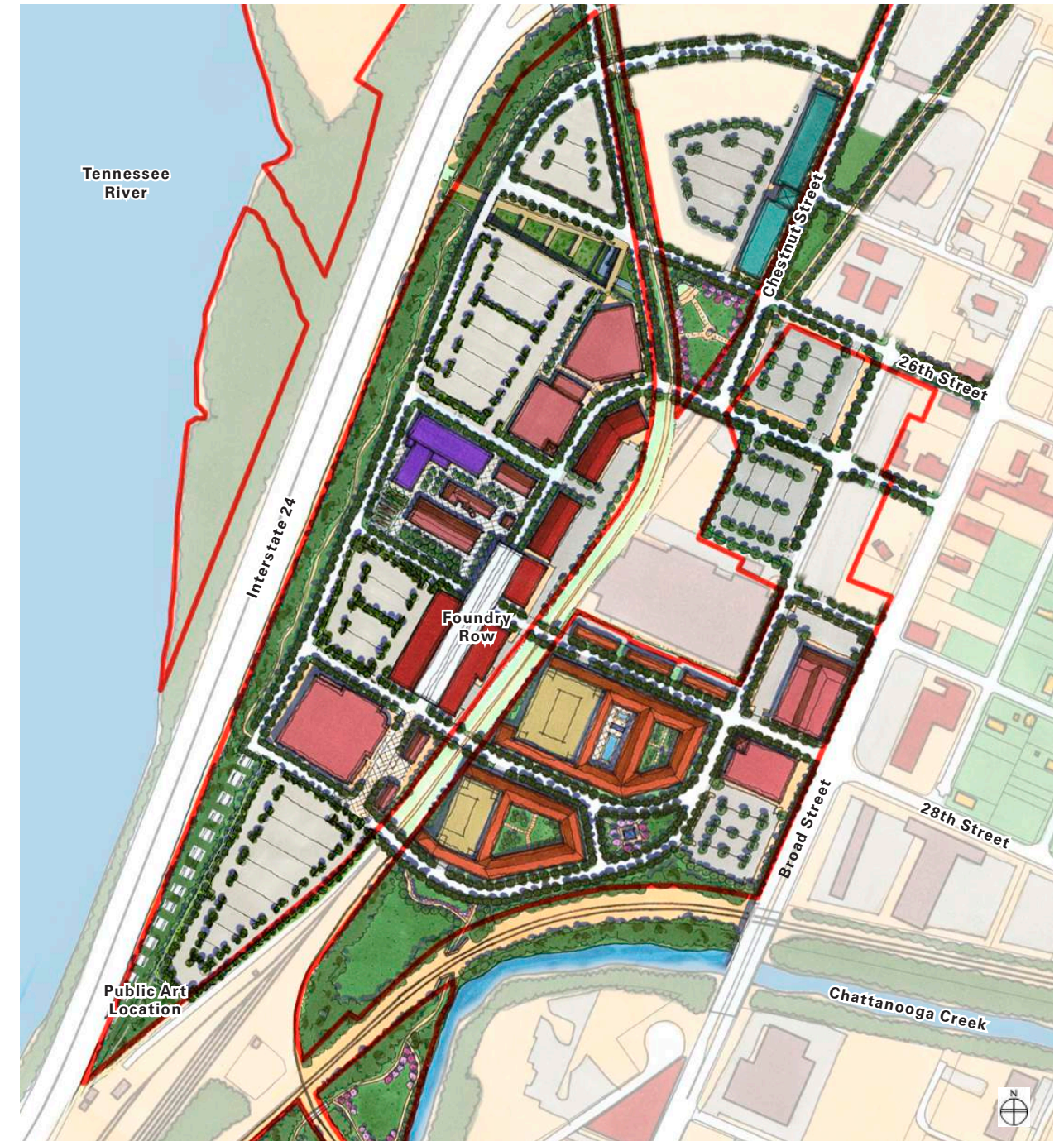
Note: Areas A & B will require 2-3 feet of fill and grade transitions to heritage buildings will be needed

Chattanooga has a tradition of principle-based planning, leading to new development throughout the city. Growth is inspired by the values and aspirations of its citizenry. Following suit, the quality and character of development on the US Pipe/Wheland Foundry site will reflect the principles set forth in this document. They will guide the implementation of this vibrant, mixed-use district.

The first phase of redevelopment will feature a retail and entertainment development, called Foundry Row, of approximately 525,000 square feet (A), situated along the western edge of the site, highly visible from I-24. Residential development will occur central to the site along 28th Street (B), and additional retail development along Broad Street, will flank 28th Street creating a gateway entrance to the development (C). This first phase will have a mix of uses, some within historic industrial structures, which will distinguish this development from other retail and mixed-use developments in the region.

Foundry Row will consist of the primary retail and entertainment uses forming the core of the master plan. This first phase will create a regional destination, near Downtown Chattanooga and easily accessible from the regional highway system. Because this development will blend retail with entertainment, office, and residential uses, it will be attractive to those seeking a unique, urban environment.

Foundry Row is envisioned as a distinct development initiative. Its main feature will be the re-use of the historic US Pipe foundry shed as a covered main street shopping experience. New buildings will also be located along this shopping street, anchored on both ends with major retail uses. Large retail buildings will require special design features, including sustainable, green design details. These structures will form the image of the property and must make a gateway statement along Foundry Row and I-24.



MIXED-USE (RETAIL/OFFICE/RESIDENTIAL) **MULTI-FAMILY RESIDENTIAL** **OFFICE** **FLEX USE**
RETAIL **HOTEL** **PARKING STRUCTURE**

PHASE I ILLUSTRATIVE MASTER PLAN Near-term development will focus at the core of the site between 26th and 28th Streets, extending towards Broad Street.

The in-line retail buildings will have upper floor residential units and/or office space. The mix of uses at construction will be determined by market demand and the densities planned are nominal for the creation of a mixed-use district. Density of subsequent phases may increase, but shall not be decreased. It is important to create multi-story buildings at Foundry Row to initiate a mix of compatible uses early in the redevelopment of the site. In addition, designing buildings for adaptive reuse and conversion of uses must be considered to create a truly sustainable district, flexible over time.

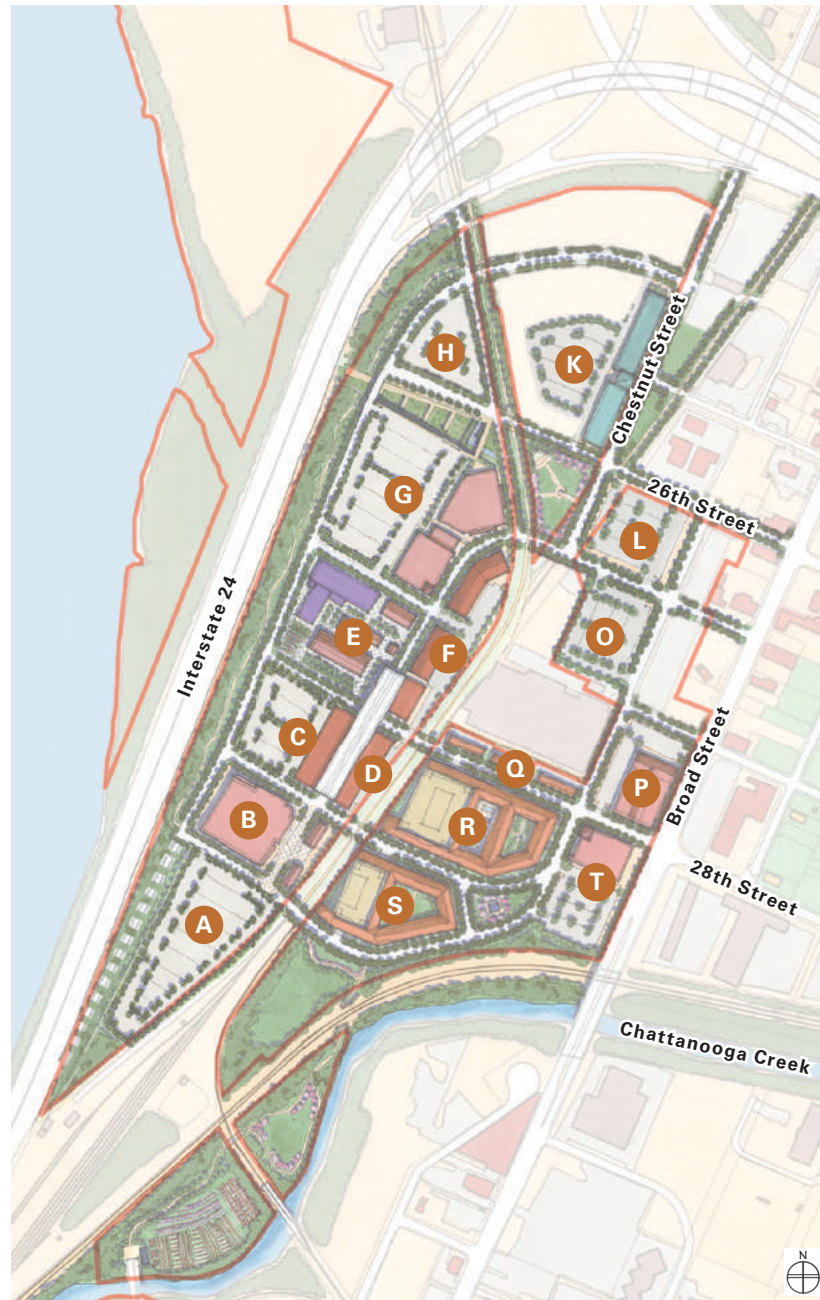
An urban hotel, located adjacent to restaurants and shopping will be included in the mix of uses in this first phase. The hotel will be highly visible from I-24, and will have views of the Tennessee River, Moccasin Bend, and Lookout Mountain.

Phase I will include the construction of streets, sidewalks, the park space, and trails adjacent to Chattanooga Creek, and surface parking areas as land banks for future buildings. The framework of streets and sidewalks will establish the vehicular and pedestrian access patterns to parking areas and new buildings. The street framework will also set up a block structure for future infill development. Green spaces will set up a framework for storm water management.

One of the strongest links to Foundry Row from Broad Street, in Phase 1, will be 28th Street. New streets will be constructed south of 28th to form the block structure for the first phase residential development, including about 435 apartment/condominium units. The proposed 28,000 square foot grocery store and the reuse of the Combustion Engineering building for retail will form a gateway and whole new experience from Broad Street as a gateway to Foundry Row. 28th Street also links new development to the heritage buildings, which will be renovated and adaptively reused in Phase I, establishing the authentic core of the mixed-use district.



An aerial view of the first phase of development



| PHASE I DEVELOPMENT CAPACITY | | | | | | | | | | | | |
|------------------------------|-----------------------|-----------------------|--------------|------------------------|---------------------------|-------------------|------------------|---------------------------------|---------------|-----------------|----------------|-------------------------|
| Block | Flex / Office Sq. Ft. | Retail Sq. Ft. | Hotel Rooms | Townhouse Residential* | Condo / Apt. Residential* | Total Residential | Required Parking | Structured Parking / Pvt Garage | Garage Levels | Surface Parking | Street Parking | Total Parking per Block |
| Parking Calculation | 2 cars / 1000 Sq. Ft. | 4 cars / 1000 Sq. Ft. | 1 car / room | | | | 1.25 cars / unit | | | | | |
| A | | | | | | | | | | 345 | 12 | 357 |
| B | | 105,000 | | | | | 420 | | | | 25 | 25 |
| C | 22,000 | 22,000 | | | | | 132 | | | 150 | 35 | 185 |
| D | | 20,000 | | | 15 | 15 | 99 | | | | 20 | 20 |
| E | 15,000 | 26,500 | 150 | | | | 288 | | | | 55 | 55 |
| F | 44,000 | 44,000 | | | | | 264 | | | 70 | 45 | 115 |
| G | | 115,000 | | | | | 460 | | | 350 | 50 | 400 |
| H | | | | | | | | | | 115 | | 115 |
| I | | | | | | | | | | | | |
| J | | | | | | | | | | | | |
| K | 45,000 | | | | | | 90 | | | 140 | 60 | 200 |
| L | | | | | | | | | | 190 | | 190 |
| M | | | | | | | | | | | | |
| N | | | | | | | | | | | | |
| O | | | | | | | | | | 195 | | 195 |
| P | | 35,000 | | | | | 140 | | | 100 | 15 | 115 |
| Q | | | | | 20 | 20 | 25 | | | | 40 | 40 |
| R | | | | | 245 | 245 | 306 | 310 | 3 | | 50 | 360 |
| S | | | | | 175 | 175 | 219 | 225 | 3 | | 35 | 260 |
| T | | 28,000 | | | | | 112 | | | 110 | 10 | 120 |
| U | | | | | | | | | | | | |
| V | | | | | | | | | | | | |
| Totals | 126,000 | 395,500 | 150 | 0 | 455 | 455 | 2,555 | 535 | 6 | 1,765 | 452 | 2,752 |

*NOTE A desired mix of rental and ownership units is important to the sustainability of the development over time. This mix is outlined in the Residential Market Study prepared by Zimmerman/Volk, Inc. (under separate cover)

PHASE I KEY PLAN Block uses and development capacities are noted in the table on the right.

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Build Out Plan

With the creation of the shopping and entertainment center at Foundry Row, and a mix of office space and residential development in Phase I, the district will expand its diversity of uses to create a transformational, mixed-use, and sustainable development emerging from the former industrial site. The redevelopment of the remainder of the site can occur according to market demand and evolve over a number of years. Its density will be designed to increase over time if the market can bear it. The creation of a significant resident population and a concentration of research and high-tech jobs at this gateway location will anchor the southern end of Downtown Chattanooga as an attractive place to live, work, and play. It is important for the continued success of the Phase I Foundry Row to capitalize on the opportunity for high-quality jobs and residential neighborhoods in the full build-out of the site.

The district will transform the current perception of this area of the city, and will act as a gateway from both the river and the interstate highway, as well as South Broad Street. Visible from Lookout Mountain, buildings and public spaces must be designed to make a bold statement within the city and beyond. The district is also meant to serve as a catalyst for the South Broad Area, including single family housing east of Broad Street and the new land created through redevelopment of the I-24 interchange.

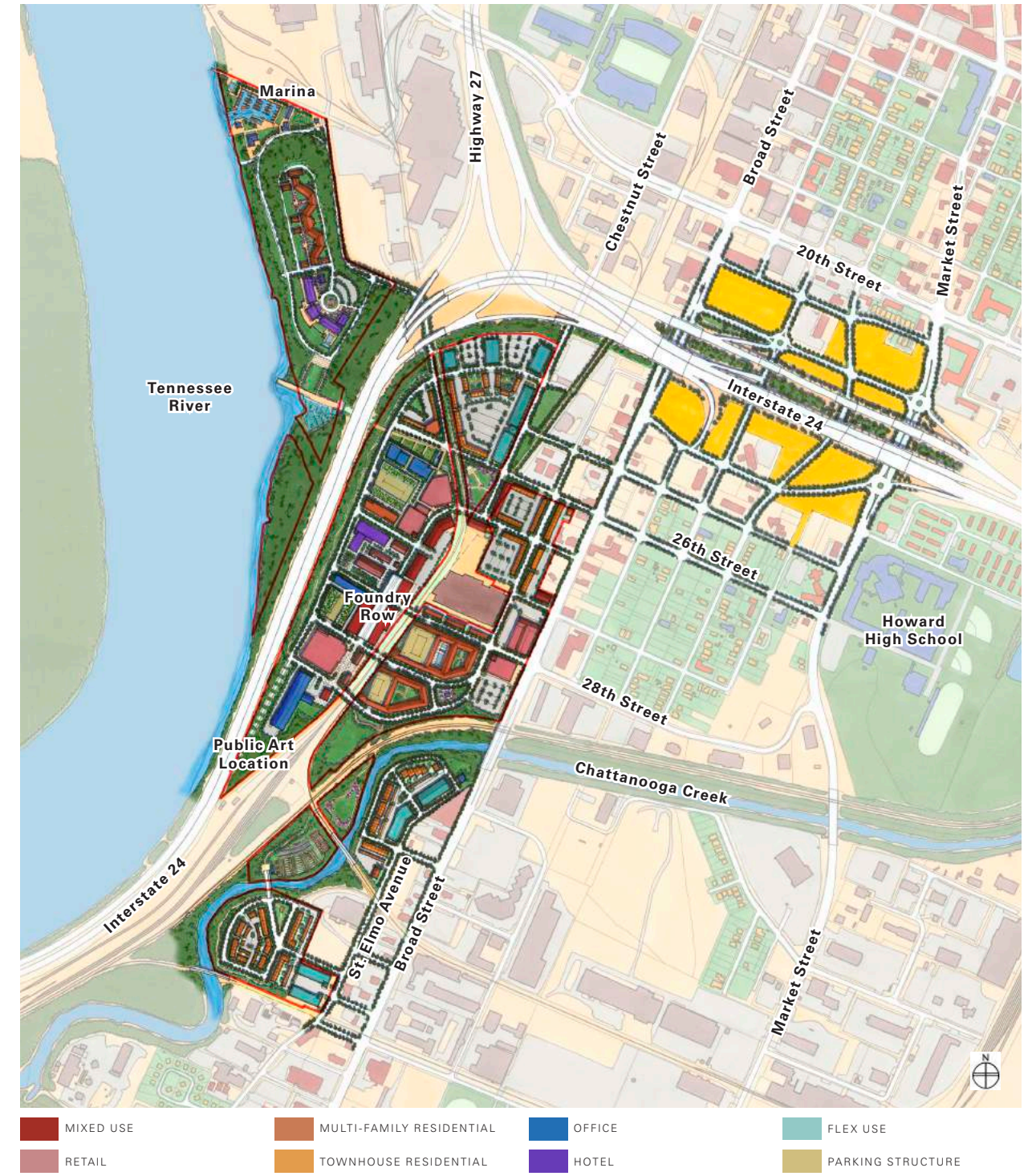
Several residential neighborhoods are proposed for the district offering a range of units from townhouses to condominiums/apartments, both ownership and rental. Neighborhoods have a pedestrian-friendly network of streets and trails, making it possible to live, work, and, recreate without having to use an automobile.



A typical residential courtyard



A gateway to the district will be created at 28th Street



BUILD OUT PLAN Over the longer term, a district containing a variety of uses will be built to reconnect Chattanooga to the Tennessee River.

Several high-quality office and research sites are proposed, most adjacent to Foundry Row. The development of some of these buildings may occur in a subsequent phases, located on the site of the original surface parking lots. Parking for the existing Foundry Row uses and the new office uses will ultimately be located in adjacent parking garages as surface parking lots are developed over time.

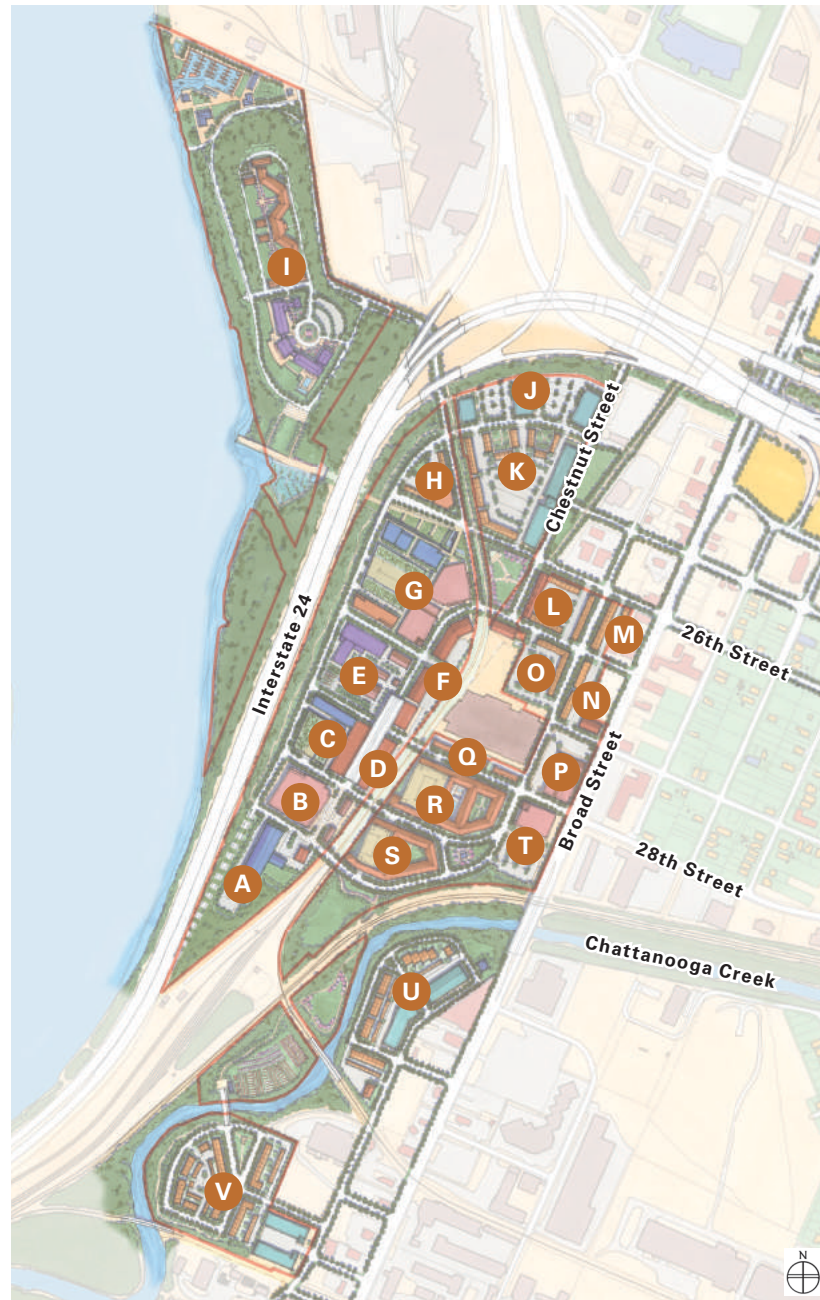
The top of the former landfill site is a prime site for a destination hotel and condominium resort. Buildings will be situated to capture views of Downtown Chattanooga, the Tennessee River, and Lookout Mountain to the southwest. With close proximity to retail and entertainment of the city, this site provides an urban oasis. Additionally, a marina will be created along the Tennessee River. This marina will provide water-borne access to the district, and will connect to the proposed Riverwalk extension into the core of the site.

Development will also occur between Chattanooga Creek and St. Elmo Avenue to revitalize and establish a new development address on South Broad Street. A flexible mix of residential and flex uses are appropriate for this area.

The parks and trails framework will establish a high quality of life for the residents and workers of the district. A system of parks and trails will link the district to the Tennessee River and to the City's trail system, and eventually to the extended Riverwalk. The Chestnut Street corridor and parallel rail-trail corridor will be extended into the development, giving cyclists and hikers the option of walking along Foundry Row or a parallel natural corridor off-street. The trails will also be extended south along Chattanooga Creek to St. Elmo Avenue connecting an important gap in the current trail system. A linear park space along 26th Street will tie Foundry Row to the banks of the Tennessee River with access underneath I-24 to the water.



An aerial view of the district at build out



| BUILD OUT DEVELOPMENT CAPACITY | | | | | | | | | | | | |
|--------------------------------|--------------------------|--------------------------|-----------------|---------------------------|------------------------------|----------------------|---------------------|---------------------------------------|------------------|--------------------|-------------------|----------------------------|
| Block | Flex / Office Sq. Ft. | Retail Sq. Ft. | Hotel Rooms | Townhouse Residential* | Condo / Apt. Residential* | Total Residential | Required Parking | Structured Parking / Pvt Garage | Garage Levels | Surface Parking | Street Parking | Total Parking per Block |
| Parking Calculation | 2 cars / 1000 Sq. Ft. | 4 cars / 1000 Sq. Ft. | 1 car / room | | | 1.25 cars / unit | | | | | | |
| A | 120,000 | | | | | | 240 | 240 | 2 | | 12 | 252 |
| B | | 105,000 | | | | | 420 | | | | 25 | 25 |
| C | 46,000 | 22,000 | | | | | 180 | 600 | 5 | | 35 | 635 |
| D | | 20,000 | | | 15 | 15 | 99 | | | | 20 | 20 |
| E | 15,000 | 26,500 | 150 | | | | 288 | | | | 55 | 55 |
| F | 44,000 | 44,000 | | | | | 264 | | | 70 | 45 | 115 |
| G | 81,000 | 115,000 | | | 45 | 45 | 679 | 740 | 4 | | 50 | 790 |
| H | | | | 12 | 20 | 32 | 40 | 12 | | | 30 | 42 |
| I | | | 175 | | 70 | 70 | 263 | 175 | 1 | 20 | | 195 |
| J | 84,000 | | | | | | 168 | | | 170 | 35 | 205 |
| K | 45,000 | | | 45 | | 45 | 147 | 45 | | 140 | 60 | 245 |
| L | | 12,500 | | 24 | | 24 | 80 | 24 | | 70 | 30 | 124 |
| M | | | | 12 | | 12 | 15 | 12 | | | 10 | 22 |
| N | 5,000 | 5,000 | | 10 | | 10 | 43 | 10 | | 30 | 15 | 55 |
| O | | 12,500 | | 10 | 6 | 16 | 70 | 10 | | 100 | 40 | 150 |
| P | | 35,000 | | | | | 140 | | | 100 | 15 | 115 |
| Q | | | | | 20 | 20 | 25 | 20 | | | 40 | 60 |
| R | | | | | 245 | 245 | 306 | 310 | 3 | | 50 | 360 |
| S | | | | | 175 | 175 | 219 | 225 | 3 | | 35 | 260 |
| T | | 28,000 | | | | | 112 | | | 115 | 10 | 125 |
| U | 35,000 | | | 33 | | 33 | 112 | 33 | | 20 | 60 | 113 |
| V | 31,000 | | | 45 | | 45 | 119 | 45 | | 20 | 72 | 137 |
| Totals | 506,000 | 425,500 | 325 | 191 | 596 | 787 | 4,029 | 2,501 | 18 | 855 | 744 | 4,100 |

NOTE A desired mix of rental and ownership units is important to the sustainability of the development over time. This mix is outlined in the Residential Market Study prepared by Zimmerman/Volk, Inc. (under separate cover).

BUILD OUT KEY PLAN Block uses and development capacities are noted in the table on the right.

Development Program

Market studies for the US Pipe/Wheland Foundry Site were conducted in Summer 2007. These studies provide a basis for design decision-making and positioning of the site by the owners, clients, design team, and future developers. The entirety of the studies is found under separate cover, however, the key program elements are summarized below.

ZHA, Inc. conducted a commercial market study for the site on the basis that it is developed in an urban fashion. A summary of the commercial, retail, and hotel uses to be targeted is noted in the table at the left. The following are brief definitions for some of the specific terminology used:

- » Signature Tenant: A tenant that anchors a building/space of a considerable size in relation to the total square footage
- » Business Development Center: A cluster of business incubator spaces
- » Resort Hotel: A signature or marquee hotel that may or may not have high-end ownership units related to its campus

Zimmerman/Volk, Inc. conducted the residential market study. Using the target market methodology, unique to their practice, they have determined the optimum market position for the site, based on a variety of factors relating to the way the site is planned and marketed, such as the characteristics of the target households, the residential context, and development of the property in an urban manner. The Optimum Market Position differs from the development program in that it relates the possible program for the site, while the development program/capacity is a measure of what comfortably fits on the

site, given site constraints, public streets and lands, and other design complexities. A summary of the Optimum Market Position is noted at the table on page 11. The following are brief definitions for the terminology used (more detailed definitions may be found in the core study itself:

- » Mid-rise Apartments : An urban, pedestrian-oriented equivalent to conventional garden apartments, typically three or more stories, often combined with non-residential uses on the ground floor
- » Mansion Apartment Building : A two- to three-story flexible-use structure with a street façade resembling a large detached house (hence, “mansion”), primarily residential in use, though it can accommodate other uses
- » Hard Loft: The adaptive re-use or raw space version of the mansion apartment residence, adaptable for a wide range of non-residential uses
- » Soft Loft: The raw space version of the mansion apartment residence, adaptable for a wide range of non-residential uses, similar to existing factory or industrial building forms
- » Artists Loft: A hard or soft loft created for dual residential and studio space
- » Townhouse: Similar in form to a conventional suburban townhouse except that the garages—either attached or detached—are located to the rear of the units and accessed from an alley or auto court, and the development pattern defers to the urban network of streets

| COMMERCIAL PROGRAM FOR URBAN VILLAGE CONCEPT (ZHA, INC.) | |
|----------------------------------------------------------------------|------------------------|
| LAND USE TYPE | SQUARE FEET |
| OFFICE/RESEARCH | |
| Signature Tenant | 120,000 |
| Business Development Center | 125,000 |
| High-Tech Space Following Signature Tenant (Flex and General Office) | 70,000-100,000 |
| General Office | 120,000-250,000 |
| Total Office/Flex | 435,000-595,000 |
| RETAIL | |
| Green Grocer/Drug Store | 40,000-60,000 |
| Department Store (Two-story) | 125,000 |
| Office Depot/Staples, Kohls, Borders, etc. | 100,000-150,000 |
| Lifestyle/Convenience Shoppers Goods Tenants | 30,000-60,000 |
| Eating/Drinking | 30,000-40,000 |
| Total Retail | 325,000-435,000 |
| HOTEL | |
| Resort Hotel (Overlooking River) | 175 rooms |
| Westin/Aloft-type Hotel (in Foundry Row) | 150 rooms |

- » Live-Work: a unit or building type that accommodates non-residential uses in addition to, or combined with living quarters
- » Cottage: A one-and-a-half-story single-family detached house on a small lot with alley-loaded parking (not in project)
- » Bungalow: A one-and-a-half - to two-story single-family detached house, with the garage located to the rear of the house and accessed from an alley or auto court (not in project)

In general, effort was made to incorporate all programmatic elements into the core design plan. Site constraints and design considerations limited the amount of each use. Urban single-family detached housing types, such as the cottage and bungalow, were not planned on-site, but provide residential opportunities within the neighborhood east of Broad Street to spur the collective revitalization of the area.

| THE U.S. PIPE/WHELAND FOUNDRY REDEVELOPMENT SITE OPTIMUM RESIDENTIAL DEVELOPMENT MARKET POSITION (ZVA, INC.) | | | | | | |
|-----------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------|-----------------------------------|----------------------------------|--------------------------|------------------------------|
| NUMBER OF UNITS | AVERAGE NET DENSITY/ ACRE | HOUSING TYPE | UNIT TYPE | BASE RENT/ PRICE RANGE | UNIT SIZE RANGE | BASE RENT/ PRICE PER SQ. FT. |
| MULTI-FAMILY FOR-RENT 30.2% OF ALL UNITS | | | | | | |
| 50 | n/a | Artists' Lofts (Chestnut St. bldgs.) | Open lofts 1 to 1.5 ba | \$500 to \$750 | 560 to 960 | \$0.78 to \$0.89 |
| 100 | n/a | Hard Lofts (over retail; adaptive re-use) | Open lofts 1 to 1.5 ba | \$575 to \$1,150 | 500 to 1,200 | \$0.96 to \$1.15 |
| 175 | 35 du | Soft Lofts (New Construction) | Studio to 2br/2ba | \$650 to \$1,100 | 550 to 1,000 | \$1.10 to \$1.18 |
| 128 | 30 du | Mansion Apts. (New Construction) | 1br/1.5ba to 2br/2.5ba/ den | \$975 to \$1,700 | 800 to 1,450 | \$1.17 to \$1.22 |
| MULTI-FAMILY FOR-SALE: 29.2% OF ALL UNITS | | | | | | |
| 200 | 30 du | Soft Lofts (New Construction) | Studio to 2br/2ba | \$115,000 to \$150,000 | 700 to 1,000 | \$150 to \$164 |
| 150 | 25 du | Mansion Apts. (New Construction) | 1br/1.5ba to 3br/2ba | \$175,000 to \$325,000 | 850 to 1,900 | \$171 to \$206 |
| 88 | 50 du | Mid-Rise Apts. (New Construction) | 1br/1.5ba to 3br/2ba | \$350,000 to \$525,000 | 1,400 to 2,400 | \$219 to \$250 |
| SINGLE-FAMILY ATTACHED FOR-SALE: 24.7% OF ALL UNITS | | | | | | |
| 211 | 1,600 sf (20x80) | Two-Story Townhouses | 2br/1.5ba to 2br/2.5ba | \$165,000 to \$185,000 | 1,100 to 1,250 | \$150 to \$164 |
| 140 | 2,250 sf (25x90) | Two-Story Townhouses | 2br/2.5ba to 3br/2.5ba | \$225,000 to \$285,000 | 1,350 to 1,850 | \$154 to \$167 |
| 20 | 2,700 sf (30x90) | Live-Work 500-750 sf "work" space | 2br/2.5ba | \$315,000 to \$345,000 | 1,800 to 2,000 | \$173 to \$175 |
| URBAN SINGLE-FAMILY DETACHED FOR-SALE: 15.9% OF ALL UNITS | | | | | | |
| 138 | 3,150 sf (35x90) | Cottages | 2br/1.5ba to 2br/2.5ba | \$165,000 to \$250,000 | 950 to 1,600 | \$156 to \$174 |
| 1100 | 3,600 sf (40x90) | Bungalows | 2br/2.ba to 3br/2.5ba | \$225,000 to \$335,000 and up | 1,450 to 2,100 and up | \$160 to \$176 and up |
| 1,500 Dwelling Units Total | | | | | | |

Connectivity Framework

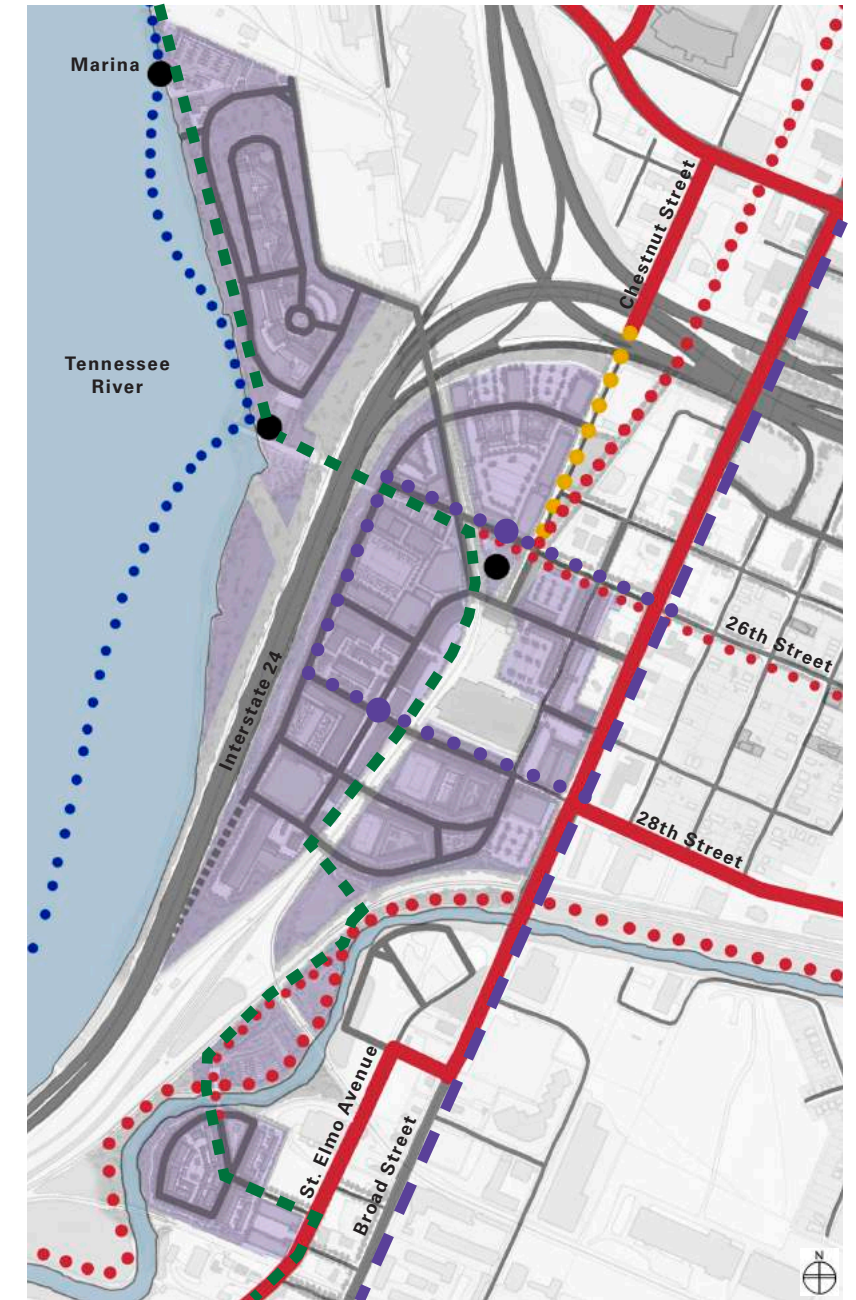
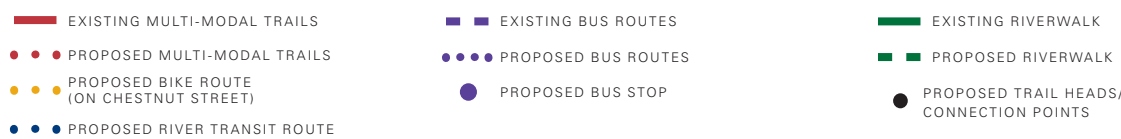
While the street network of Chattanooga provides form and structure to the district, various other important transportation systems helped shape the design of the district as well. Utilizing and providing for a variety of transportation options is crucial to creating a vibrant, mixed-use district and is in keeping with the City of Chattanooga's overall goal of being a pioneer in creating sustainable and unique places.

Developed during the Design Charrette, the diagrams at right illustrate:

- » Existing and abandoned railroad lines to be utilized or proposed as bicycle trails and open recreational space
- » On-street bicycle routes and off-street multi-modal greenways that connect with the City of Chattanooga's existing bicycle system
- » Extending the Riverwalk through the site, connecting existing facilities to the north to the extensive trail system on Lookout Mountain
- » A prominent greenway along 26th Street that will lead from the banks of the Tennessee River to Howard High School
- » A potential river transit route that would be an extension of the popular Downtown to North Shore River Taxi
- » Preserved land along Chattanooga Creek to aid in the cleanup and restoration efforts currently in progress



CONNECTIVITY FRAMEWORK In addition to the street network, a system of greenways, blueways, trails, paths and public transit provide a variety of meaningful transportation linkages throughout the City.



SITE CONNECTIVITY The proposed design accommodates various transportation modes to create connections within the site and to the surrounding community. Furthermore, the design of all streets within the district will encourage and provide for safe use by pedestrians

Street Framework

The existing street network of Chattanooga is a mixture of the traditional American street grid, apparent on the east side of Broad Street, and a more loose arrangement that accommodates large-scale industrial use. However, the construction of Interstate 24 and U.S. Highway 27 removed many historic local connections, forcing most traffic onto a few high-capacity streets.

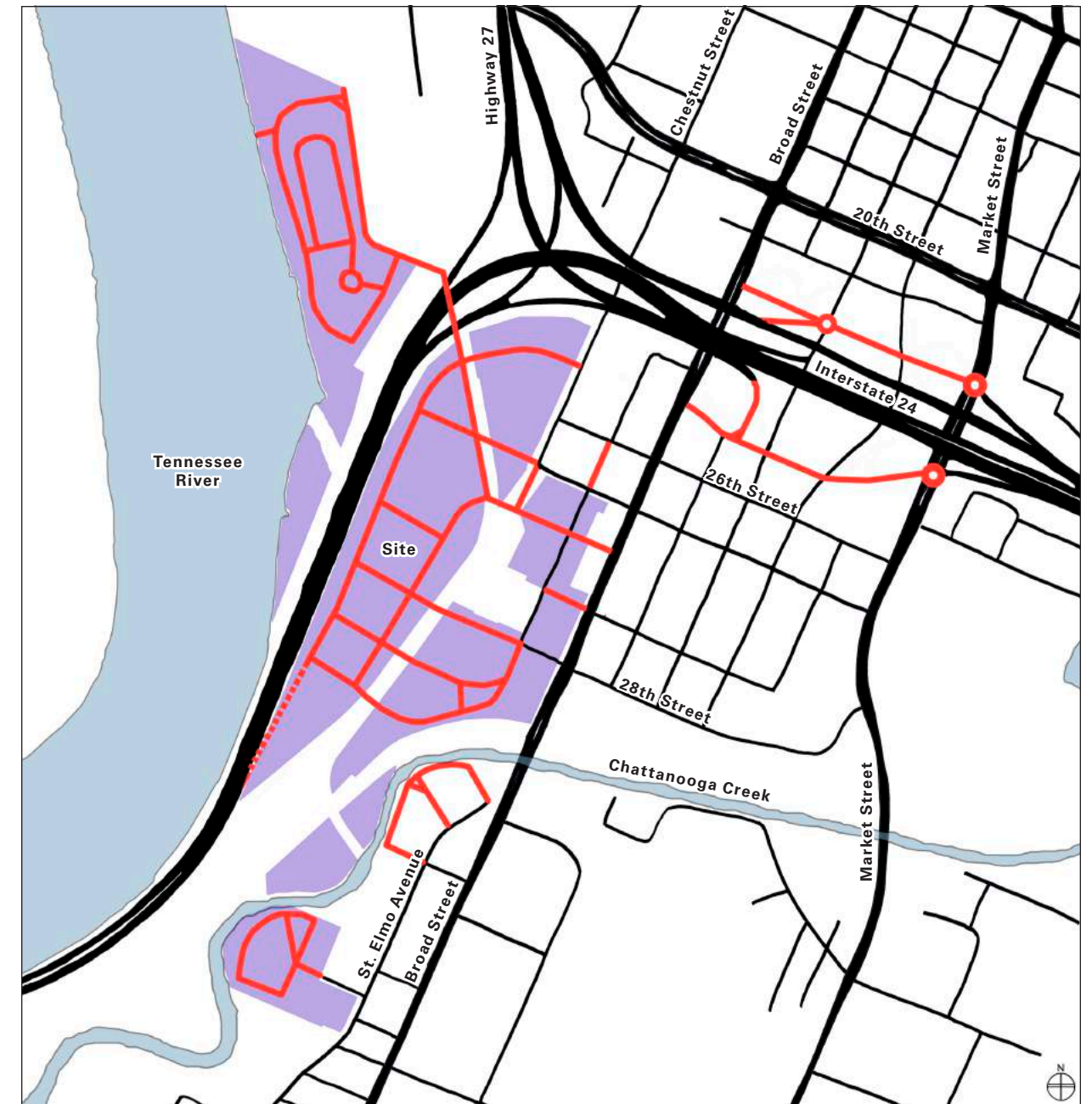
A number of different options were explored to improve and respect the local street network. The proposed street framework plan on this page illustrates the recommendations, including:

- » Reconfiguring the I-24 Broad/Market interchange (see following page for further detail)
- » Extending the residential-scale street grid of the South Broad neighborhood west into the new district
- » Extending Chestnut Street into the site and routing it past some of the most prominent site features, thereby creating a core development address (Foundry Row)
- » Creating a well-connected network of streets on-site to allow for a number of access options within the district
- » Placing a street alongside I-24 that creates an address for adjacent buildings and a route for vehicles that may be accessing the district via a possible future exit from the I-24



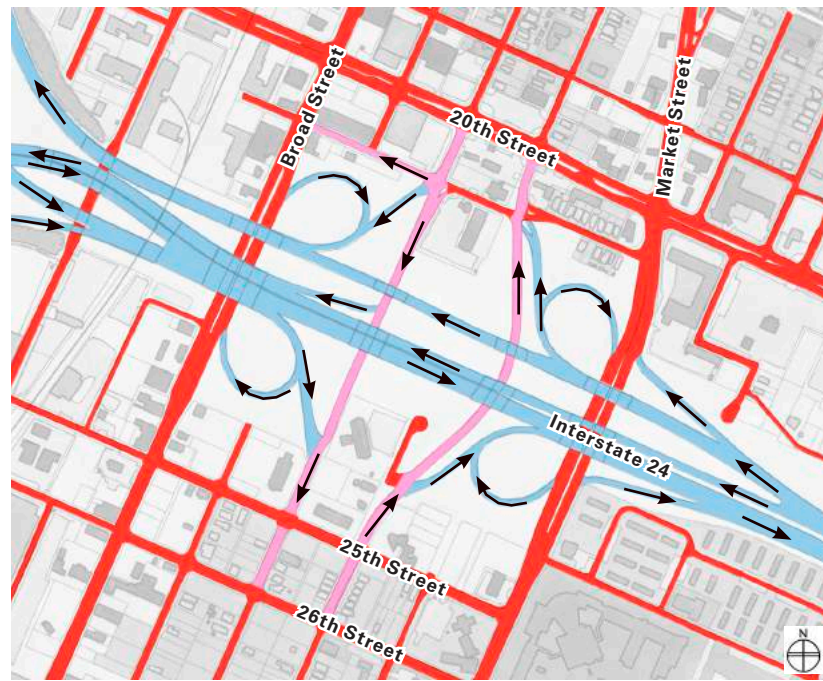
(ABOVE) EXISTING STREET FRAMEWORK The City street grid extends toward the former US Pipe/Wheland Foundry site but never entered the site due to its historic industrial use. Interstate 24 orients itself to the local street grid but still separates the site from the Tennessee River.

(RIGHT) PROPOSED STREET FRAMEWORK The proposed street network weaves the site into the overall City street grid. East/west streets largely run toward the river, while the north/south network connects the various development parcels. Most notably, a strong linkage is created by continuing Chestnut Street through the core of the new district, and encouraging cross access to Broad Street, assisting in revitalization of the neighborhoods east of it.



EXISTING STREETS PROPOSED STREETS

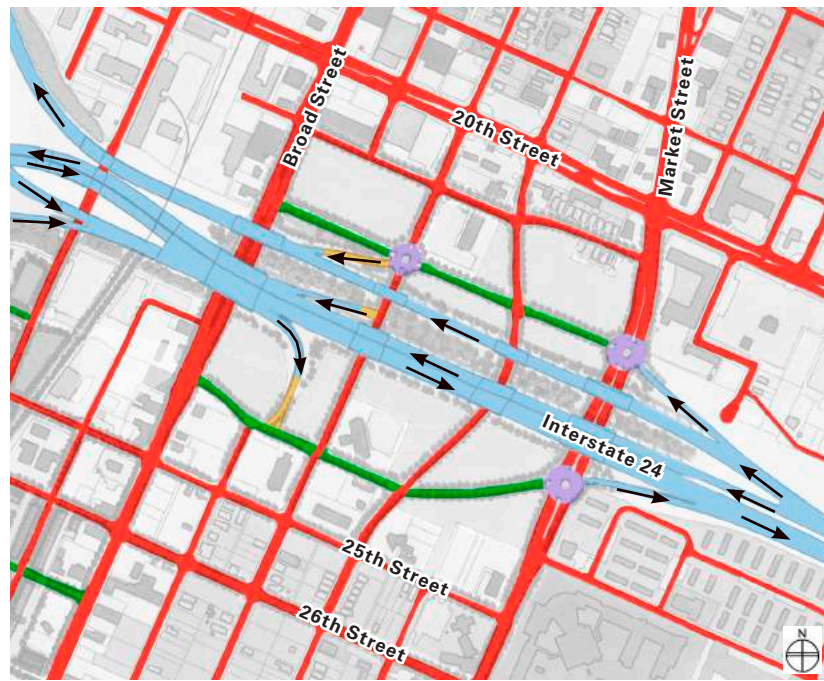
I-24 Ramp and Interchange Proposals



EXISTING TWO-WAY SURFACE STREETS
EXISTING ONE-WAY SURFACE STREETS
EXISTING INTERSTATE AND ACCESS RAMPS
TRAFFIC DIRECTION

EXISTING CONDITIONS

In its current configuration, the interchange of Interstate 24 and Broad/Market Streets occupies approximately fifteen city blocks. The system of loops, ramps, and one-way surface streets is designed to accommodate large volumes of vehicles, facilitates high-speed travel, and is out of context within the surrounding neighborhoods. The interchange is one of the primary access points to Downtown Chattanooga, but does very little to create a sense of arrival into the City. The interchange also creates a significant perceptual and physical barrier within the City.



EXISTING TWO-WAY SURFACE STREETS
EXISTING INTERSTATE AND ACCESS RAMPS
PROPOSED TWO-WAY STREETS
PROPOSED INTERSTATE AND ACCESS RAMPS
PROPOSED TRAFFIC CIRCLES
TRAFFIC DIRECTION

DESIGN PROPOSAL

The redesign of the interchange drastically simplifies traffic movements, clarifies access, and improves safety for drivers and pedestrians alike. The design consolidates the interstate exit and entry points and restores the local street grid. In turn, the design unlocks much land for development opportunities. All but one of the loop ramps are removed in favor of a frontage road design. High-capacity traffic circles or signaled intersections handle the transfer of vehicles from the interstate to surface streets. Furthermore, the remaining one-way streets are converted to two-way traffic flow to restore the character of the surrounding neighborhood and increase local access. In an effort to minimize costs, very little new interstate infrastructure is required. Lastly, the traffic circles and simplified street network provides a much more attractive and less confusing entrance to the City.



RECLAIMED LAND/DEVELOPMENT PARCELS
RECLAIMED STREET FRONTAGE

DEVELOPABLE LAND

With the removal of the interstate access ramps and loops, approximately 19.7 acres of land would be available for development. Development in this area would serve to unify the City fabric that was separated with the construction of the interstate. Also, new development would serve as an attractive gateway into the City. New and improved streets would provide better access to the area on the west side of Broad Street, ultimately aiding the redevelopment of the study site and other adjacent lands. Proceeds from the sale of the development parcels can help finance street improvements.

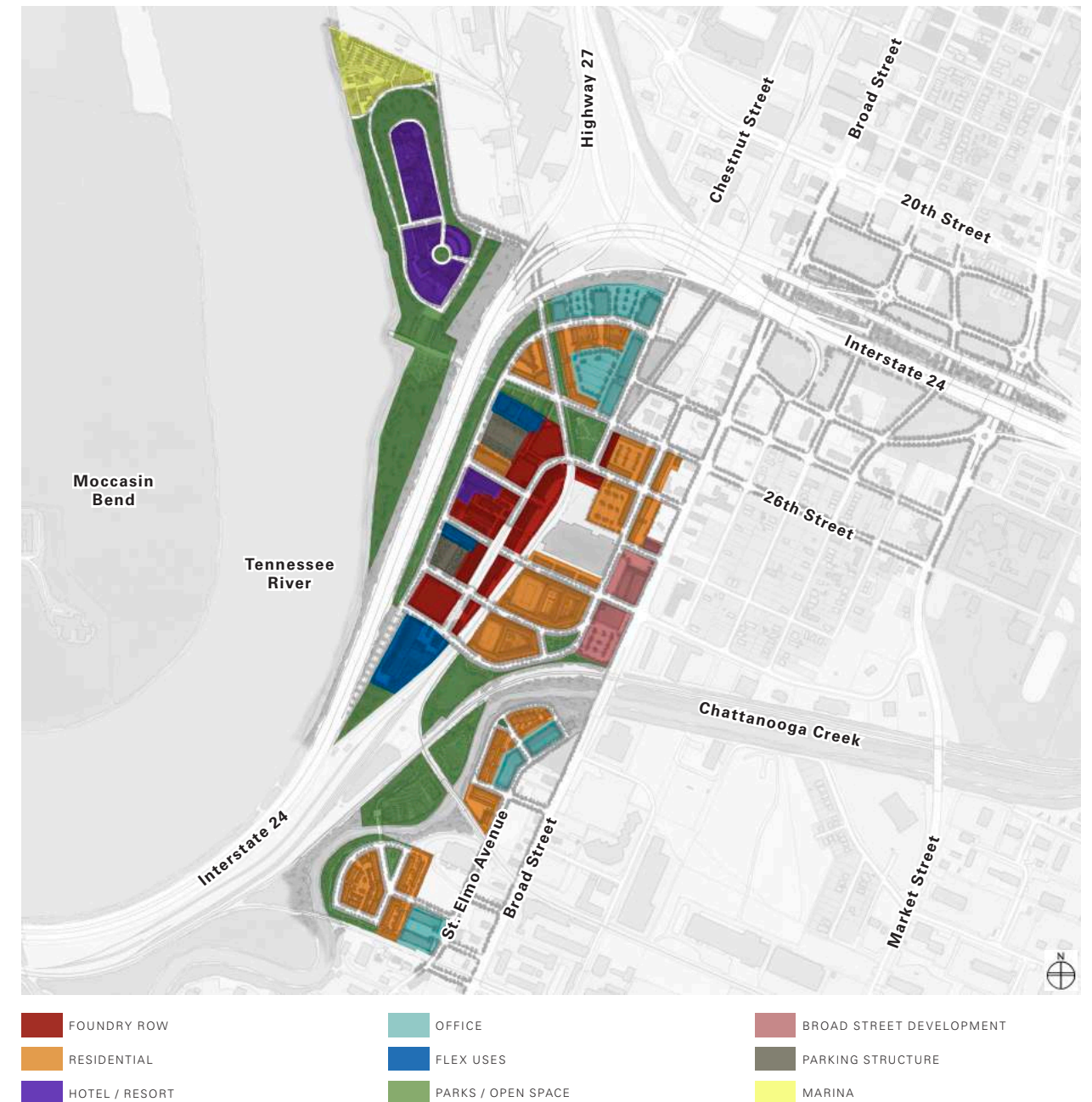
| DEVELOPMENT PARCELS | |
|---------------------|-------------------|
| 1 | 3.6 Acres |
| 2 | 0.8 Acres |
| 3 | 0.7 Acres |
| 4 | 3.4 Acres |
| 5 | 0.9 Acres |
| 6 | 2.4 Acres |
| 7 | 2.0 Acres |
| 8 | 2.3 Acres |
| 9 | 1.3 Acres |
| 10 | 2.3 Acres |
| Total: | 19.7 Acres |

Development Areas

A MIXED-USE COMMUNITY such as this new district has a wide variety of land uses. Although many of the buildings will be capable of accommodating a vertical mix of uses, distinct development areas have been designated:

- » Foundry Row
- » Residential Development
- » Office Development
- » Hotel and Resort
- » Broad Street Development
- » Parking
- » Parks/Open space/Marina (described in Landscape Character and Sustainability sections)

As can be seen on the plan to the right and as described in detail on the following pages, these development areas can be seen as opportunities for individual investors or developers according to market demand.



DEVELOPMENT AREAS Diagram illustrating land uses throughout the development

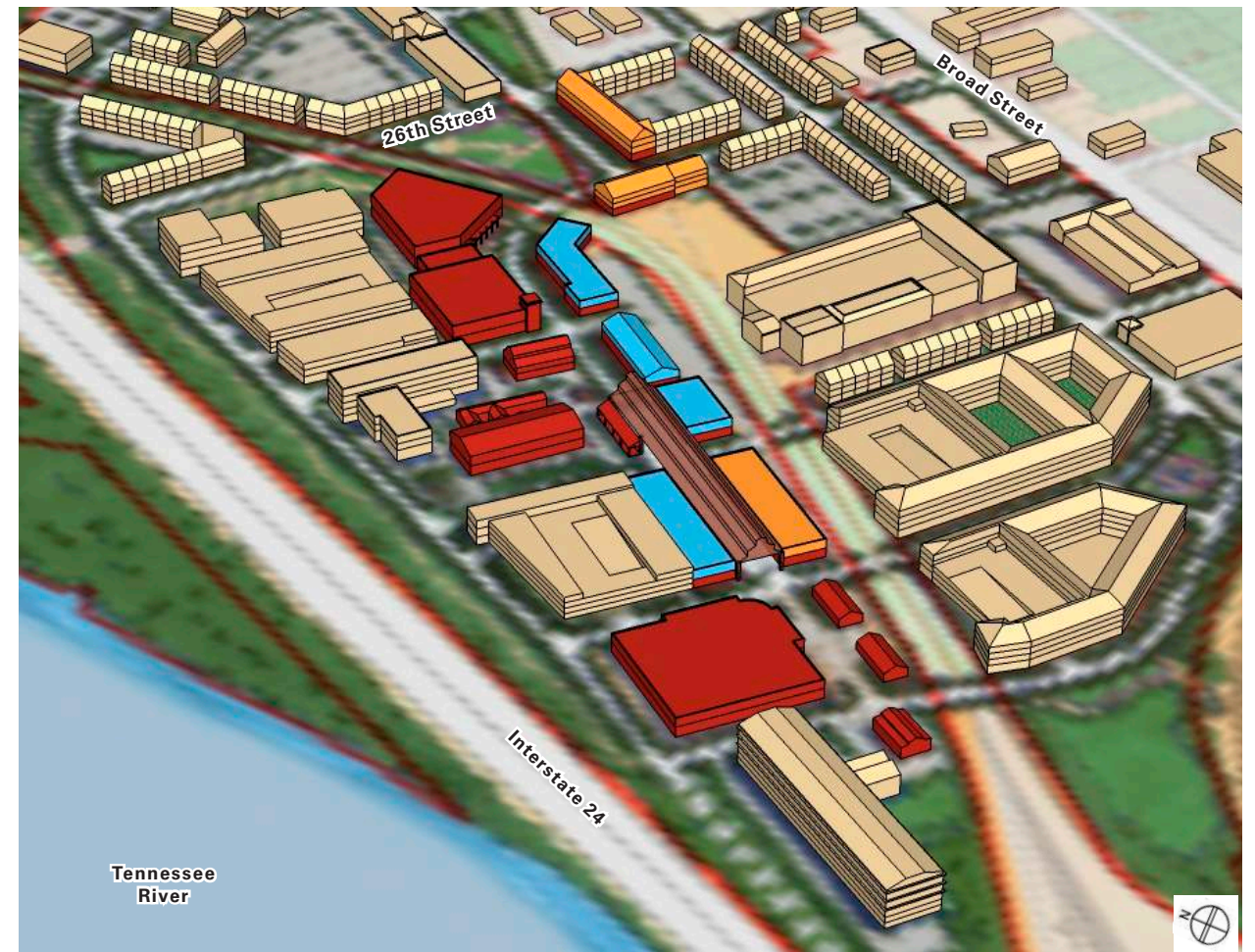
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Foundry Row



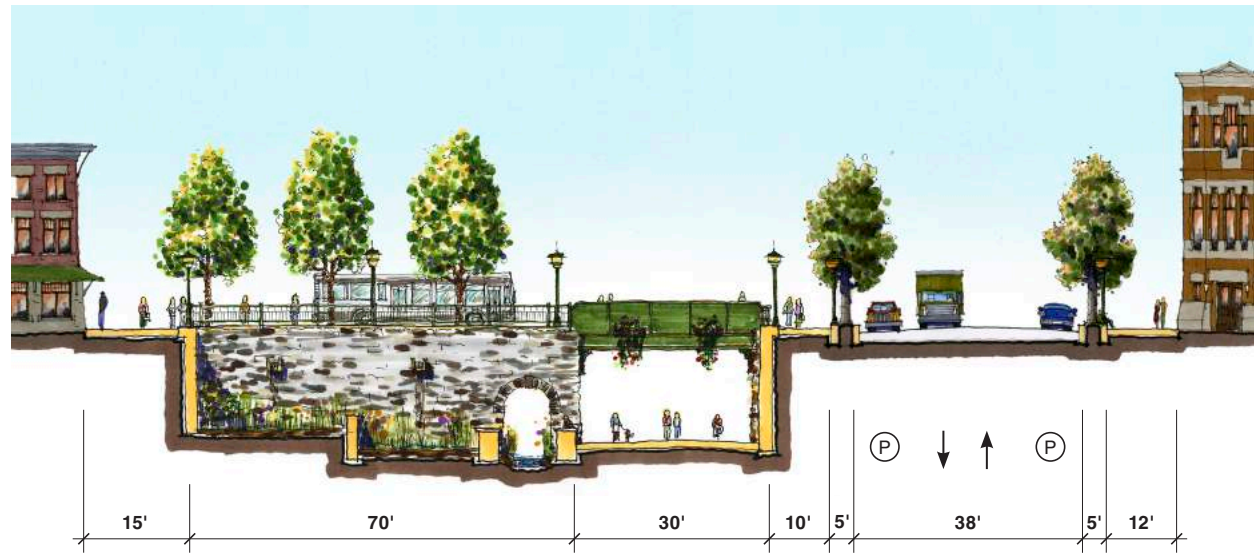
Foundry Row is a retail and entertainment development organized along the re-aligned extension of Chestnut Street running inside the main foundry shed north to Central Park. The street is lined with multi-story buildings that have ground floor specialty shops with upper floor uses that may include office space and/or residential units. Several historic industrial buildings clustered northwest of the foundry shed along the new retail street will be re-used for commercial uses including retail, restaurants, and offices. The preservation, rehabilitation, and reuse of several of the original foundry buildings will give this area a character unique in the country and will connect back to the site's heritage.

The north/south street of specialty shops and restaurants will be anchored on both ends by department stores. The southern anchor will be highly visible from Interstate 24 as one approaches the downtown area. The prominent location of this anchor use necessitates special design treatment, as it serves as Chattanooga's front door when approaching from the south. Quality of architecture treatment, such as massing, materials, and integration of sustainable building practices should be used. The other anchor is highly visible fronting Central Park at a major entrance to the district along 26th Street from Broad Street. The walking distance from one anchor to the other is 1,200 feet. About half of the street experience is inside the restored foundry shed, which will become an industrial version of a European galleria. The shed will be lined with shops and upper floor office uses. Parking for this first phase initiative can be achieved with surface lots. Foundry Row will have 220,000 square feet of anchor stores and 112,500 square feet of specialty retail and entertainment uses.



(ABOVE) PROPOSED FOUNDRY ROW Aerial view focusing on the proposed Foundry Row development
 (LEFT) FOUNDRY ROW PLAN Illustrative plan showing the proposed Foundry Row development

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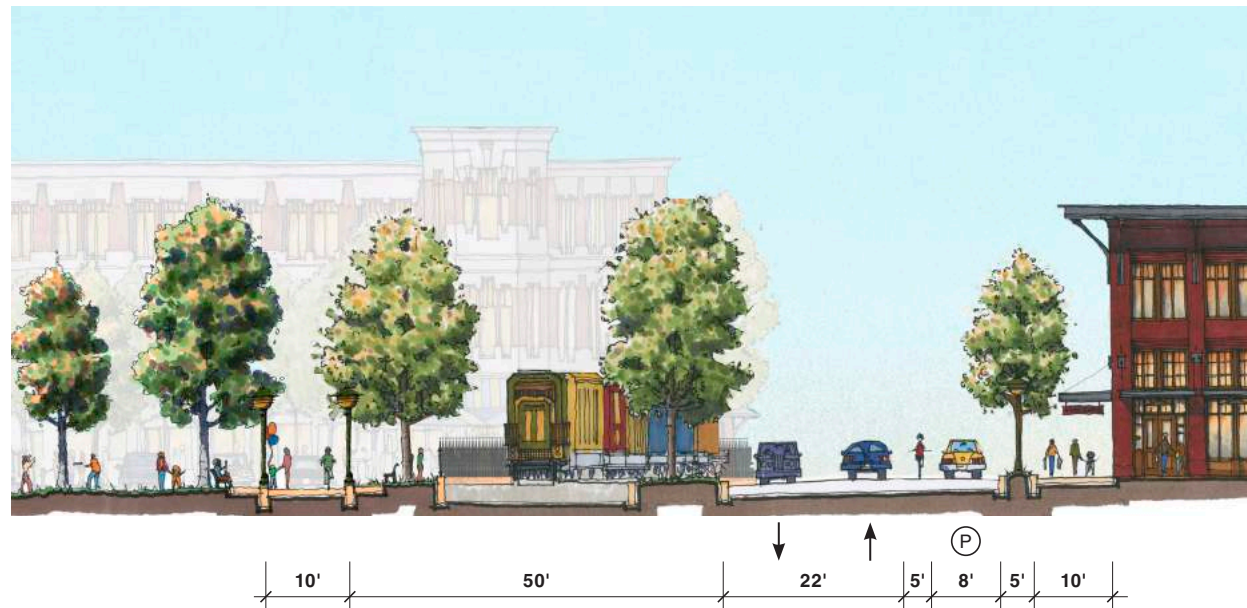
26TH STREET PARK SECTION This public space will connect the district to the Tennessee River, incorporating stormwater management features



FOUNDRY SHED SECTION A mixed-use street runs through the Foundry Shed celebrating the city's industrial heritage



HISTORIC CORE SECTIONS The area around the restored heritage buildings will be a node of activity within the district



CENTRAL PARK SECTION The existing railroad right-of-way will run through the large gathering space at the center of the district



Downtown Chattanooga



South Market Street, Downtown Chattanooga



Keystone Commons, East Pittsburgh, Pennsylvania

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Residential Development

The master plan proposes a mix of uses to create a 24-hour environment. Key to the transformation of this property into a mixed-use district is the inclusion of residential units. The residential market study recommends a mix of attached single-family, condominium/apartment-style, and loft units, both home-ownership and rental tenure. Several residential neighborhoods are proposed throughout the district.

Chestnut Street Lofts

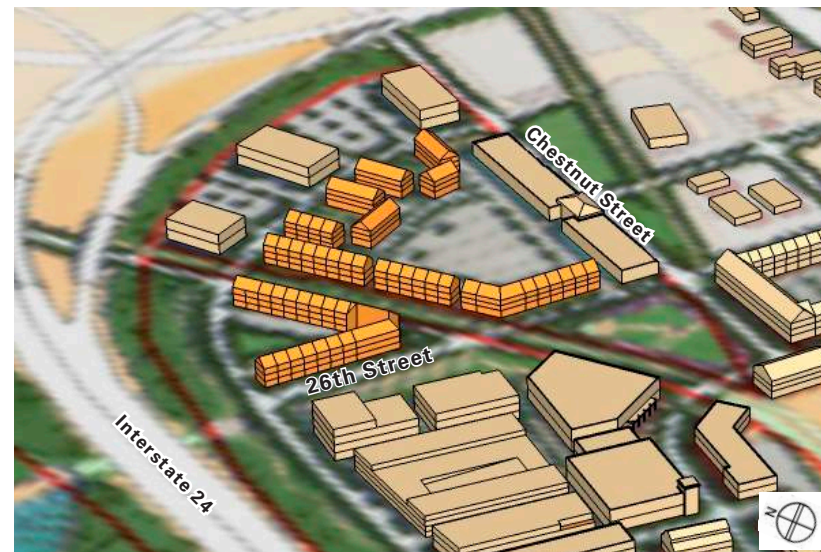
These units are gathered adjacent to Central Park, along the Chestnut Street corridor, the rail corridor, and 26th Street. These units will be townhouses and loft style units, potentially including live/work, with surface parking or garages integral to the units.

North Creek Residences

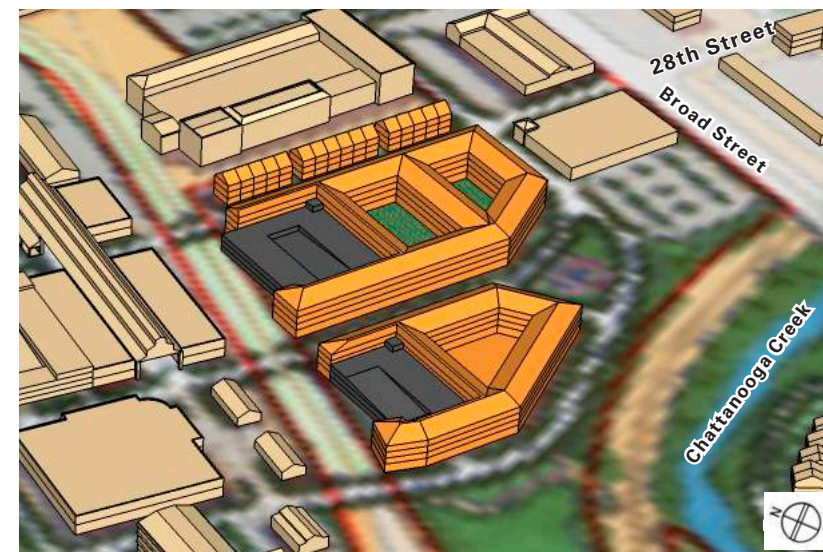
These units are condominium/apartment-style units in double-loaded corridor configurations of three or four stories in height with integral precast above-grade parking structures. These units will be oriented along the public streets and into courtyards, immediately adjacent to Foundry Row. This neighborhood is the highest density of residential units planned, and will be made possible by structured parking.



CHESTNUT STREET LOFTS
 (ABOVE) Illustrative plan of proposed housing to be developed near the Chestnut Street heritage building
 (BELOW) Illustrative view highlighting the proposed Chestnut Street Lofts



NORTH CREEK RESIDENCES
 (ABOVE) The proposed North Creek Residences are large apartment or condominium buildings served by structured parking
 (BELOW) Illustrative view highlighting the proposed buildings known as the North Creek residences



North Shore, Chattanooga



Charlotte, North Carolina



Charlotte, North Carolina

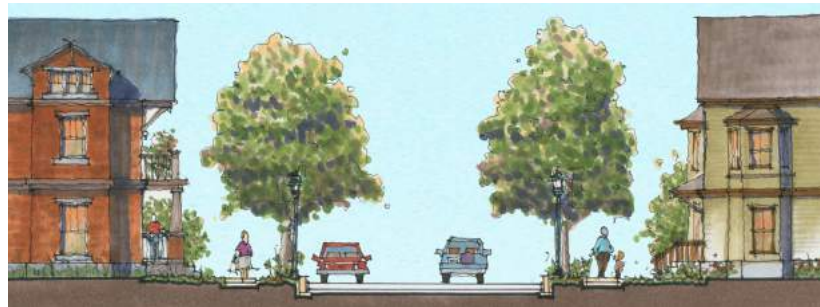
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Sidney Street Homes

These units are located at a major entrance to Foundry Row from Broad Street and will be a mix of townhouses and loft-style units with surface parking or parking integral to the units. These units will extend the residential land use pattern of the South Broad neighborhood across Broad Street and connect that land use into Foundry Row at Central Park.

South Creek Homes

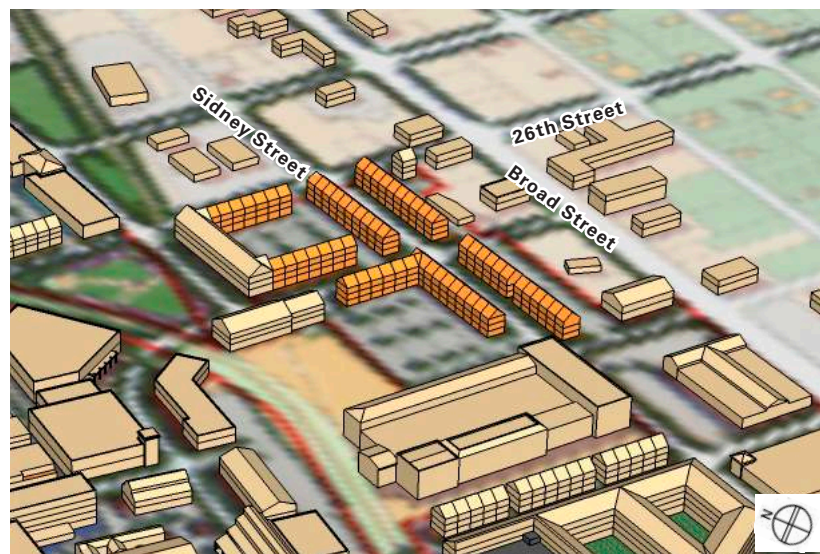
With the reclamation of Chattanooga Creek, and the transition of this area to mixed-use, the creek will become a highly-desirable natural amenity for residential development. These units will be a mix of townhouses and lofts, and will have mostly attached or detached garage parking. The creek helps organize development, and view corridors are created to perceptually connect these buildings to development north of the creek. Community gardens are proposed along the west side of the creek to provide localized food production opportunities proximate to the new urban district.



TYPICAL STREET SECTION New residential streets within the district will be designed to accommodate pedestrians and bicyclists, as well as automobiles, creating safe and engaging environments.



SIDNEY STREET HOMES (ABOVE) Illustrative plan of the proposed townhouses and lofts centered around Sidney Street
(BELOW) Illustrative view highlighting the proposed Sidney Street Homes



SOUTH CREEK HOMES (ABOVE) Proposed design for two residential neighborhoods south of Chattanooga Creek
(BELOW) Proposed view highlighting the South Creek Homes



Cherry Street, Chattanooga



West 19th Street, Chattanooga



Cowart Street, Chattanooga

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Office and Flex Buildings

Places for employment will be critical to the success of this mixed-use environment and help drive the retail, entertainment, and housing development. Both office and flex buildings are proposed that include space for both large and small tenants in new and restored buildings that can be customized to tenant needs.

Chestnut Street Flex Buildings

These sites include new and re-used buildings. The existing building situated on Chestnut Street proper can be re-used as a unique loft-style environment that can accommodate a range of specialty functions including lab space, light manufacturing, office, or studios. The structure of this heritage building lends itself to any number of uses that may be determined as the district develops.

Flex building sites are also proposed along the curve of Interstate 24. These buildings define the northern edge of the core district. Parking may be handled in surface parking lots or parking structures depending on the exact uses determined over time. Buildings should be oriented in an urban manner that complements the character of the new district.

26th Street Offices

Multi-story office space is proposed along the 26th Street corridor and park leading to the Tennessee riverfront. This location is adjacent to Foundry Row with adjacent garage parking. These buildings will have views of the Tennessee River and will be highly visible from Interstate 24.

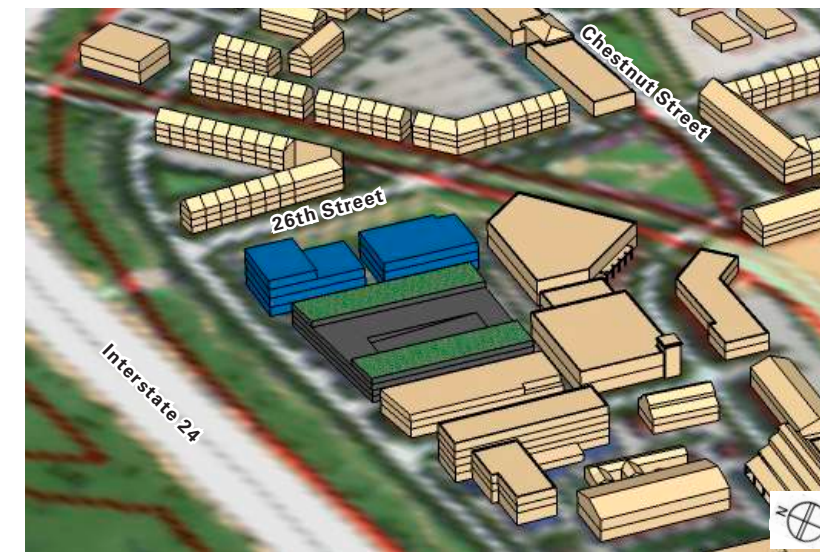
Though the buildings will be primarily office in use, retail, commercial, or public uses are encouraged on the ground floors to engage the public park with activity. In addition, parking garages



CHESTNUT STREET FLEX BUILDINGS (ABOVE) Illustrative plan of the restored building on Chestnut Street and new buildings adjacent to Interstate 24
(BELOW) Illustrative view highlighting the proposed Chestnut Street flex buildings



26TH STREET OFFICES (ABOVE) Illustrative plan of the proposed 26th Street Office development and the adjacent park space
(BELOW) Illustrative view highlighting the proposed 26th Street Offices



throughout the district should be conceived and designed as convertible over time. Garages are designed so that the outermost bays can house other uses in the future, creating a fully flexible and sustainable framework.

Foundry Row Offices

Office space will be created above ground floor retail uses and along 28th Street, adjacent to structured parking. This building will be attractive to smaller tenants seeking proximity to the dynamic mixed-use environment of Foundry Row.

Gateway Technology Site

This building will be a signature office/research building custom designed for a major tenant seeking a prominent gateway location. This site is highly visible from I-24, the Tennessee River, and Lookout Mountain, and the upper floors of this building will have unique views back to these Chattanooga landmarks. This building can become a symbol for the future of Chattanooga's redevelopment along the Tennessee River. Parking for this site should be below grade. This iconic building will demonstrate the highest form of sustainability principles and will be a symbol for the rest of the site. The front lawn of this site will contain an important placement of public art.

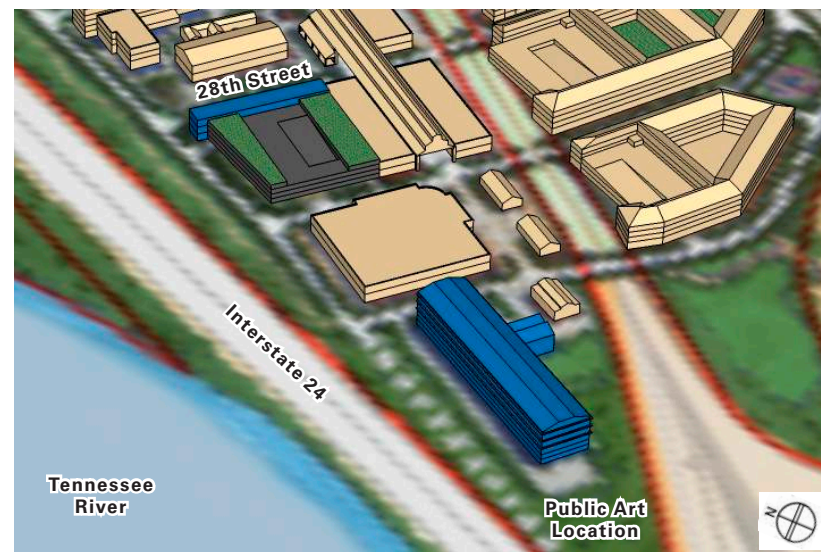
South Creek Flex Buildings

Flex space is proposed for this formerly industrial area. With a mix of uses developing in this area, such as that already associated with the Saddlery Building, a continuation of this development into a district makes sense.

Flex buildings, which could house various uses, such as light industrial, office, or studio space, will be developed along St. Elmo Avenue to take advantage of proximity to Broad Street.



FOUNDRY ROW OFFICES AND GATEWAY TECHNOLOGY SITE
 (ABOVE) Illustrative plan of the proposed Foundry Row offices, located on 28th Street adjacent to the Foundry Shed, and The Gateway Technology site, south of Foundry Row
 (BELOW) Illustrative view highlighting the proposed Gateway Technology site and the Foundry Row offices



SOUTH CREEK FLEX BUILDINGS
 (ABOVE) Illustrative plan of the proposed flex buildings
 (BELOW) Illustrative view highlighting the proposed South Creek flex buildings



Signature office building
 Greenville, South Carolina



Heritage building on Chestnut Street,
 Chattanooga

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Hotels and the Marina

Hotels in the new district vary in type and arrangement. One is an urban hotel adjacent to Foundry Row, and the other is a hotel/condominium in the resort tradition on a hilltop overlooking the Tennessee River.

Hotel at Foundry Row

The Hotel at Foundry Row is adjacent to a cluster of heritage structures that will be re-used as retail, restaurants, and office space. The hotel will be highly visible from I-24, and will be designed to compliment the heritage buildings that define the character of this area. Guests will enjoy great views toward the river and Lookout Mountain in the distance, but will also have immediate access to the retail core of the district. The proposed hotel of 150 guest rooms includes meeting space and conference areas.

The Resort Hotel Development and Marina

Foundry sand was deposited over many years at a property along the river. Views from the top of this site to the city, the river, and Lookout Mountain, are spectacular. The master plan sites a hotel/condominium resort destination in this location, accessible by a road that winds up to an entry court at the main resort hotel building, containing 175 rooms. Condominiums will extend to the north. This development can be operated as a single resort complex with the possibility of time share sales, central services, and a luxury spa. In the north, a marina is proposed to connect this upland resort to the Tennessee River itself via trails as an extension of the City's Riverwalk south into the new district.



HOTEL AT FOUNDRY ROW (ABOVE) The proposed Foundry Row hotel is located adjacent to the restored historic buildings
(BELOW) Illustrative view highlighting the proposed Foundry Row hotel in the heart of the district



RESORT HOTEL DEVELOPMENT AND MARINA (ABOVE) Illustrative plan of the proposed Mesa development, showing both the resort hotel and condominiums
(BELOW) Illustrative view highlighting the proposed resort hotel development and marina at the far northern end of the site



Mt. Washington Hotel,
Bretton Woods, New Hampshire



Newport, Rhode Island

Broad Street Development

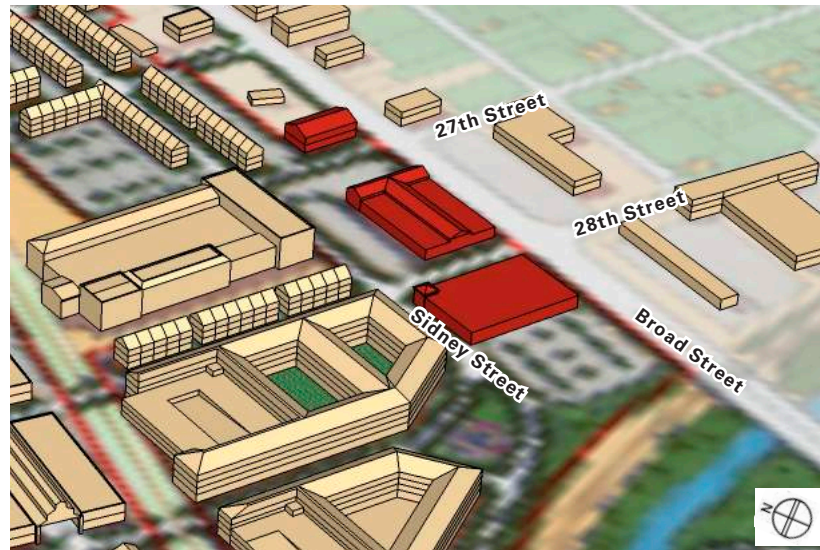
Broad Street is a major arterial connecting southern Chattanooga to Downtown. This street is a heavily traveled route within the city. Broad Street connects to I-24 between 20th Street and 25th Street and is developed as a series of disparate uses in this area.

Broad Street is an important commercial corridor within the City of Chattanooga. Commercial and retail uses align themselves along this spine from the district to Downtown. Retail uses along Broad Street between 24th Street and Chattanooga Creek are not coordinated as with the fabric of Broad Street in Downtown. As such, this district has the opportunity to spur urban revitalization and create a gateway with the character of new Broad Street development.

Land controlled by the development team is situated at 28th Street. Given the volumes of traffic along Broad Street, the plan situates retail to flank 28th Street. This retail will include the re-use of the Combustion Engineering building as a proposed 35,000 square foot grocery store with adjacent surface parking, as well as another medium-sized retail establishment. Surface parking will accommodate the given uses. The stores will be central to both the district and neighborhoods east of Broad Street. By claiming Broad Street for development, the district creates another meaningful link to the

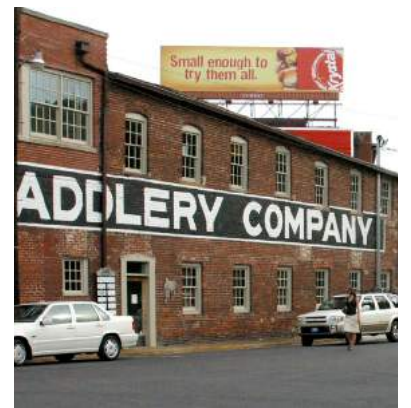


(ABOVE) Illustrative plan of proposed new construction and adaptive re-use proposed for the property along Broad Street
(BELOW) Illustrative view highlighting proposed development along Broad Street



— AREA OF TARGETED IMPROVEMENT AND REDEVELOPMENT — LAND NEEDED FOR NEW STREET R.O.W.

(ABOVE) INFILL AND LAND ACQUISITION OPPORTUNITIES
Additional land should be acquired to redevelop underutilized property along Broad Street between 25th Street and 28th Street to increase the presence of the district on this major artery. Additional land will be required to make street connections shown in the plan, as well. Several historic buildings located on Broad Street are currently being used for retail and office uses. These buildings create a very attractive presence on Broad Street, and any new development should respect their locations and architectural character. The development team should collaborate with existing land owners to devise mutually beneficial solutions and increased development opportunities.



Buildings Along South Broad Street, Chattanooga

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Sustainability

THE GOAL OF THE DEVELOPMENT, as envisioned by the community and the owners, is to create the most sustainable district in the city. The new district will be a national model for responsible brownfield development and will continue to enhance Chattanooga's reputation as the South's most sustainable city. The master plan acknowledges that the development not only needs to be designed and constructed sustainably, but must provide users with opportunities to live, work, and recreate in truly sustainable ways in order to meet its full promise over time. The master plan meets these goals through a variety of strategies: such as an integrated approach to building and site design; a range of transportation options; open space and recreation choices; the creation of productive landscapes; and providing building and site designs that can accommodate a range of uses.

The vital components of sustainability should not be limited to only green solutions for buildings and site work. The goal of sustainability is three fold – to eliminate waste and pollution, conserve energy and resources, and to enhance natural systems. In the book Ten Shades of Green – Architecture and the Natural World, ten strategies are laid out:

- » Low Energy Performance – Achieved by making maximum use of natural light and ventilation
- » Replenishable Sources – Harvest non-depletable ambient energies of the sun, wind, waves, gravity, and geothermal power
- » Recycling: Eliminating Waste and Pollution – Re-use building materials, design buildings that are flexible and easily re-used; recycle water and heat

- » Embodied Energy – Look at energy efficiency in material selections in terms of life-time energy use
- » Long Life, Loose Fit – Build with materials that endure and improve with age; green buildings not only accommodate change easily but are timeless and pleasant in character so that people prefer to conserve them
- » Total Life Cycle Costing – Balance capital cost with long-term maintenance costs
- » Embedded in Place – Green buildings fit seamlessly into, help reintegrate and minimize negative impacts on their surroundings
- » Access and urban context – to be green, integrate multi-modal transportation alternatives
- » Health and Happiness – Natural light, fresh air, and contact with nature and community provide a healthy life
- » Community and Connection – Achieve a sustainable culture by regenerating a sense of community and connections with the natural world

The strategies apply to community, architecture, and landscape, both new and restored. In this section, green topics focus on capturing and treating stormwater, providing for a green infrastructure and buildings, as well as habitat restoration and urban planting strategies.



Green Buildings



Trails



Permeable Paving



Water harvesting along streets

Addressing Sustainability with Landscape, Architecture, and Infrastructure

The current industrialized landscape of the US Pipe site is unique and offers enormous possibilities for revitalization. A new landscape – green, productive and welcoming can be achieved by applying innovative sustainable solutions to transform various aspects of the site.

These should address the following:

- » Creation of a system of native plant communities and habitats to connect this site to Chattanooga’s current greenways, parks, and natural systems
- » Integration of sound stormwater management practices to capture, cleanse, and reuse run-off
- » Creation of a functional park system and series of streets that are ecologically based as well as place makers
- » Developing design standards for making existing buildings, as well as new buildings, ‘green’
- » Marrying new development blocks and existing development blocks to remain in a sensitive, accessible manner that incorporates green strategies
- » Design buildings to be adaptable over time and make maximum use of natural light and ventilation, harvest the non-dependable ambient energies of the sun; wind and geo-thermal power; build with constantly replenished materials and ones that endure and improve with age; integrate water harvesting techniques; recycle grey water; reduce the urban heat island by using green roof technology.



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Normally with former industrial sites, there are environmental challenges. To our advantage, these sites will have been given a positive report by TDEC by the time development commences. What may have been challenges on a typical brownfield site have been turned into opportunities.

The sustainable strategies that can be applied to this site are divided into four categories that are derived from the application of new design standards that attempt to integrate the above sustainable practices:

- » Urban Streets
- » Green Streets
- » Park and Park Connections
- » Private Development Blocks

The potential sustainable strategies have been divided into four classifications: Urban street, Green street, Park Land, and Private Development. Each of these classifications has great potential for a variety of sustainable strategies, and each will have a different visual character.

Any development promoted as green or sustainable should not only seek to restore lost natural processes but should also celebrate natural systems as an integral component of a healthy community. The following pages provide inspiration for strategies that might be employed on the US Pipe site and reinforce the unique landscape character of Chattanooga.



URBAN STREETS Urbanized streets shown here with infiltration planters



PARK LAND Public park lands where pavement and infrastructure is limited may be locations to display a wide range of sustainable design features



GREEN STREETS Less developed streets, shown here with a bio-swale

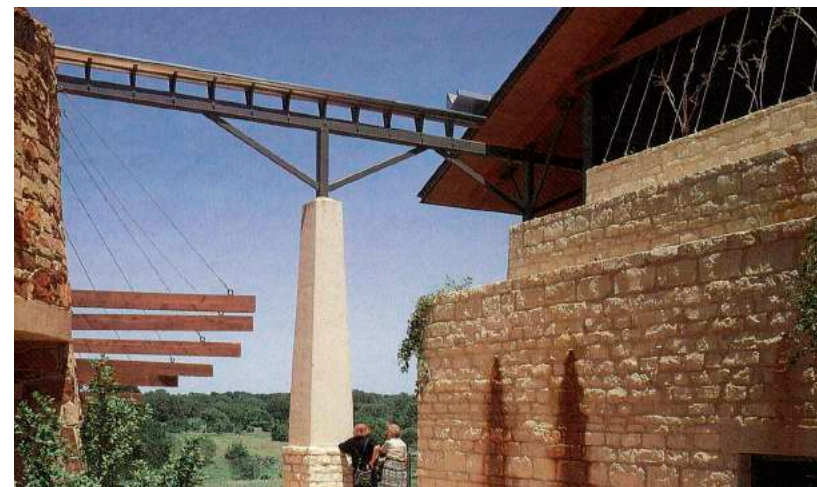


PRIVATE DEVELOPMENT BLOCKS Private development with public frontage that enhances the public realm

Strategies for Existing Buildings

Some existing heritage buildings on the site exhibit significant architectural character and sufficient structural integrity to be rehabilitated and adapted for new uses. To preserve these buildings, floor slabs remain intact, working within the shell of the existing structure. Since subsurface soils are potentially affected, and former foundations will remain, excavation for sustainable strategies will be limited. Therefore, controls will be above grade or exposed. These elements can provide wonderful inspiration for the redesign of the buildings. Aqueducts, exposed cisterns, and above-grade planters can be designed to mimic the industrial character of the existing buildings.

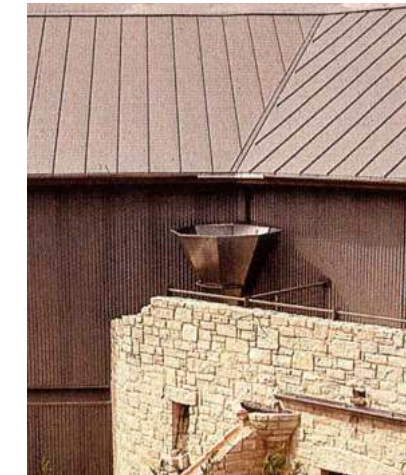
Although there is less opportunity for large-scale strategies surrounding existing buildings, that does not mean that small-scale strategies are not beneficial. The cumulative effect of many small-scale, independent strategies will be critical to the overall health of the district, and will reinforce an ethic of sustainability that is well-known and practiced in Chattanooga.



An aqueduct that conveys water is an architectural feature



Adaptive reuse of an industrial site



Roof water collection



Runoff conveyed into planter



Aqueducts celebrate rain water collection



Roof water conveyance



Above-grade cistern

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Strategies for New Buildings

To maintain consistent sustainable building standards throughout the development, the LEED (Leadership in Energy and Environmental Design) Green Building Rating System™ standards will be used. New buildings are to meet LEED certification standards, with LEED-Silver being the minimum targeted standard for new development. Where practical and applicable, Gold or Platinum designations will be sought, particularly on parcels that are highly visible or symbolic of the development. Strategies for new building design include durable buildings with flexible floor plates that can accommodate a variety of uses over time; sophisticated building envelope systems, including green roofs, that reduce heating, cooling, and lighting requirements; and water and waste management strategies that reduce water usage and maximize recycling waste.

Many new buildings may need to be sited upon two to three feet of fill. Therefore, controls and sustainable features can be sunken below grade. Less of the exposed ground surface needs to be devoted to sustainable features, so larger plazas and pedestrian spaces can be developed. Inspiration for the detailing of these spaces can be drawn from the historic urban development patterns of Chattanooga.



Green roof with usable pathways and seating



Green roof and large atrium that provides natural lighting



Sculptural green roof



Green roof that is used as a courtyard



Water collected from canopy is conveyed into planter

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Strategies for Transitional Development Blocks

One challenge for sustainable strategies is that portions of the site may be capped or covered with up to 2 to 3 feet of clean soil. While this will eliminate the need to remove some of the existing foundations, it also means that new buildings may be sited 2 to 3 feet higher than existing buildings. Furthermore, in an effort to control demolition costs, existing foundations may remain in place and covered by soil. The following relationships may be designed in relating existing, heritage buildings to new development.



Elevated buildings connect to courtyard via steps



A green roof in Paris, France



Terraced seating wall



Raised planters transition grade



Architectural connections between old and new buildings



Roof garden transitions between old and new construction

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The Green Network

Beyond a framework of parks and community connections, applying specific green strategies related to stormwater capture and treatment, low-impact site improvements, such as porous paving, and the use of local, natural and recycled materials, will form the basis of a sustainable neighborhood. These strategies would include the re-establishment of natural wildlife habitats, urban forests, and the restoration of urban watersheds into a new, green network that reinforces man's connection with nature in context with the urban development.

The best example of such integration is Central Park in New York City, where in the mid-19th Century, Frederick Law Olmsted and Calvert Vaux proposed a new urban park on derelict land to balance the ever-growing congestion of the city. In their vision, a democratic, public open space, filled with promenades, parade grounds, greenswards, and civic spaces would provide social interaction and foster community. In contrast, much of the site was to be restored as an urban forest with natural waterways, woodlands, rock outcroppings, and wildlife. This environment was to reconnect man and nature.

On this site, there is an opportunity to establish meadows, woodlands, watercourses, and habitats to bring man and nature together in an urban context. Various landscape types, including densely planted tree stands, meadows, and woodland edge plantings will bring re-introduce plant types lost over time. There are also possibilities to integrate urban agriculture into the landscape by providing orchards, crop squares, and hedgerows to create community gardens as the focus of a locally-based food source.



Central Park, New York City



Meadow



Mature woodlands



Wetlands



Stream corridor

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Open Space Network: Framework for Sustainability

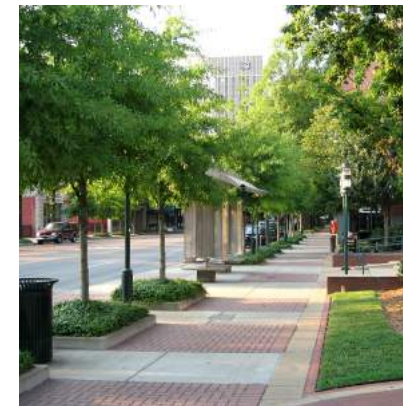
The US Pipe/Wheland Foundry Master plan includes recreational amenities and open spaces that will contribute to both the desirability and the livability of the newly revitalized district. The intent of the open space network is to provide a variety of spaces for family and community-oriented recreation in an urban setting. The plan equitably distributes park land and urban plazas throughout the community so that each user is within a short walking distance of public open space.

The open space network addresses sustainability by improving air quality through the capture and minimization of urban air pollution, allowing buildings within the district to more fully utilize natural cross ventilation. Furthermore, the open spaces will be planted with indigenous plant species that will be able to naturally cope with the local climate, reduce the urban heat-island effect, and facilitate stormwater management without extensive maintenance. The open space network will therefore be able to make visible the sustainable strategies employed in the district.

Parks will vary in size to accommodate a number of different amenities. They will also vary in character to promote distinctive place making. The parks are designed to provide a diverse set of passive recreational opportunities including walking paths, play areas, overlooks, piers, and community gathering spaces. District parks will be connected to retail, commercial, and residential areas through pedestrian-scale streets and trails, encouraging residents to walk, shop, browse, and gather. For park users who choose to drive, parking will be provided both on- and off-street in typical urban development configurations.

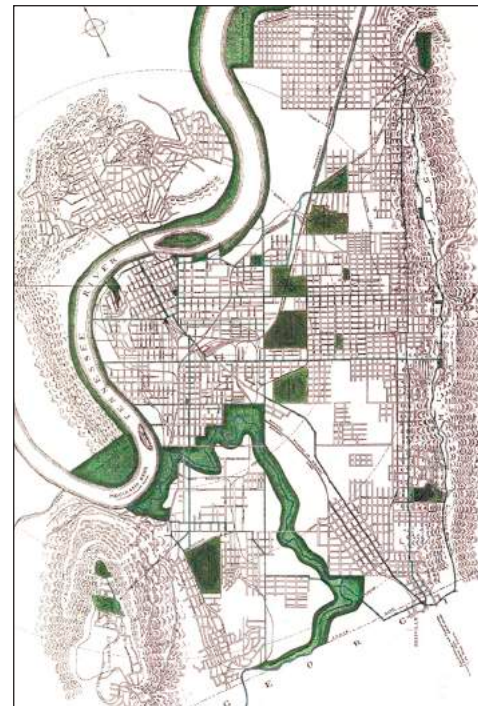


Precedent photos showing the character of urban spaces existing within Chattanooga today



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Chattanooga's Landscape Character

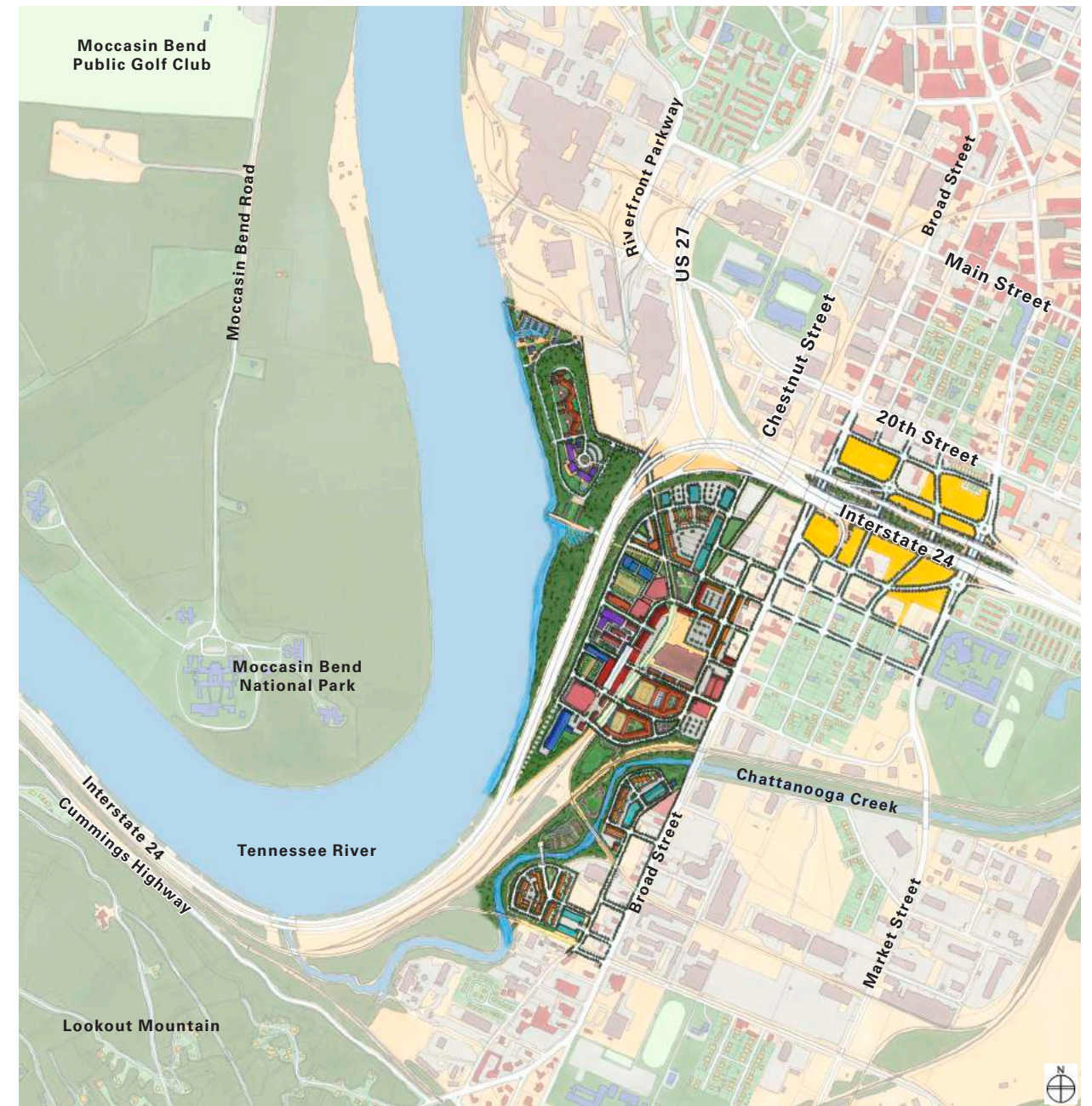


Nolan plan of Chattanooga

Chattanooga is located on the Tennessee River in Hamilton County in southeastern Tennessee, and is in a diverse area of farmlands, forests, and low mountains. The topography is marked by caves and sinkholes that provide a groundwater resource. The mountains possess intriguing geologic features that make them attractive and part of the overall lure of the area to tourists.

The most renowned natural features in Chattanooga are the Tennessee River and the surrounding highlands. The city is nestled between the southwestern Ridge-and-valley Appalachians and the foot of Walden's Ridge. The Tennessee River separates the ridge from the western side of downtown. Several miles east, the city is bisected by Missionary Ridge. The Tennessee River is impounded by the TVA's Chickamauga Dam north of the downtown area. Five automobile bridges, one railroad trestle, and one pedestrian bridge cross the river.

In 1969, the U.S. Environmental Protection Agency cited Chattanooga as having the worst air quality in the nation. Since then, community-wide revitalization projects have made the city a leader in the sustainable development movement. Steps have been taken to insure that Chattanooga's natural landscapes are conserved while contaminated areas are being treated and protected.



Illustrative Master Plan

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Public Space Character

There will be a variety of urban spaces created within the District. These range from small pocket parks and central greens to large informal open spaces. The goal is to provide a variety of recreational opportunities for residents and to provide the conditions necessary for improved ecological health. A great urban space can be both functional and ecologically diverse. The precedent photos on this page are examples of great urban spaces in different cities. Although the scale and use is different in each, they all share a common commitment to provide recreational and ecological value through good design practices.

Sociability

The design of public spaces - the streets, squares, and parks - is critical to the success of the development. It is in these places of social interaction that people meet formally and informally to create community. In turn, this community sustains residents and visitors and gives a unique identity and particularity to a place.

Variety of Uses

Public spaces should be flexibly designed to handle many different uses. A well-designed space can accommodate activities ranging from formal recreation to impromptu performances.

Comfort and Image

Public spaces should be inviting and comfortable for all users. These spaces are also the “first impression” visitors have of the community, so they should be constructed to the highest standards using only the best materials.



An urban plaza with integrated art



A public path with a terminated vista



Tree-lined walks



URBAN SPACES



An open lawn



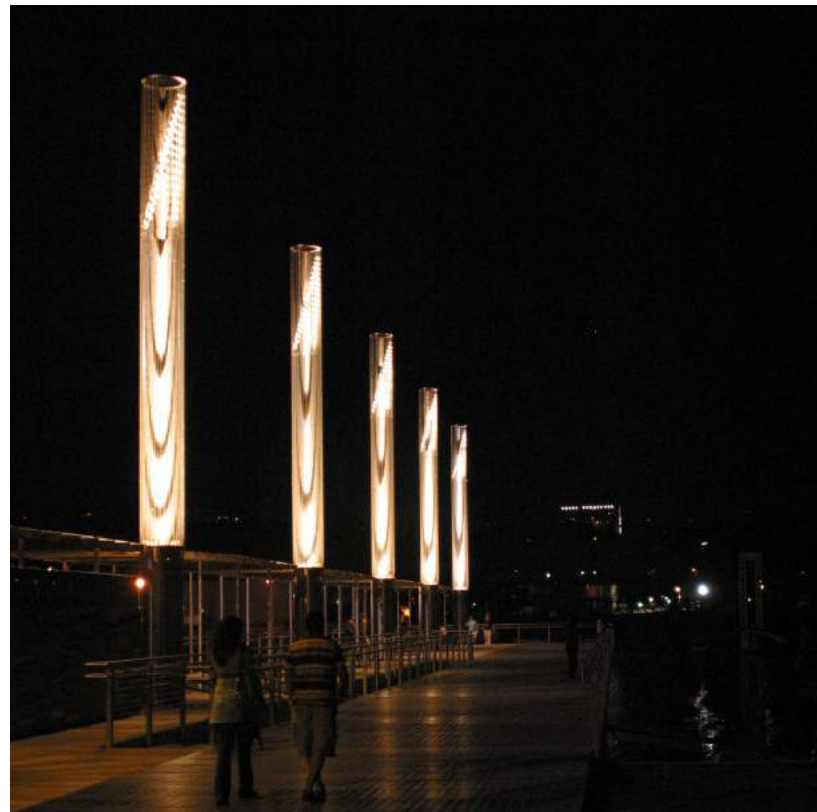
Gabian wall seating



Moveable seating

Integrated Art

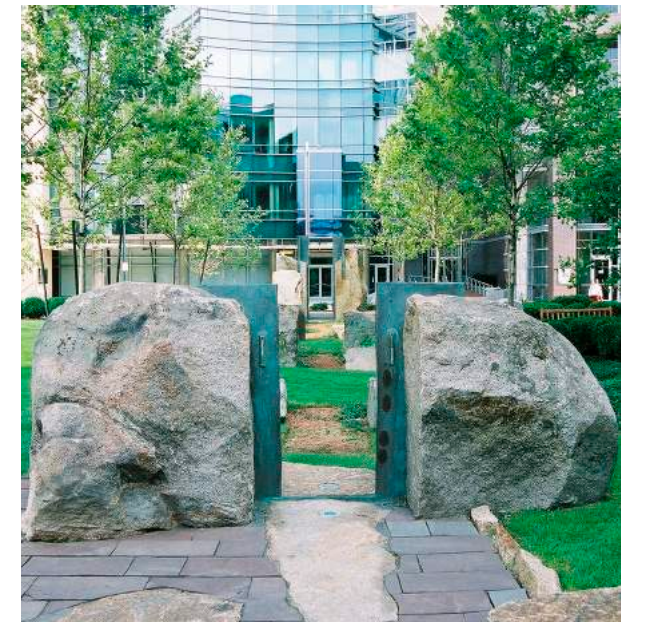
Plazas are activated by the integration of art, oftentimes produced by local artists. Both children and adults alike may enjoy art installations, especially those that may take on a functional purpose. Themes of the site's industrial heritage may provide inspiration for art to be integrated into buildings and public spaces. The gateway position of the site, as one enters Chattanooga on I-24 from the west, suggests the southwestern end of the main site to be an opportune location for monumental public art. This would introduce visitors to the city and the project as they round the bend of the river on their way into town.



Large-scale sculptural elements on Chattanooga's riverfront



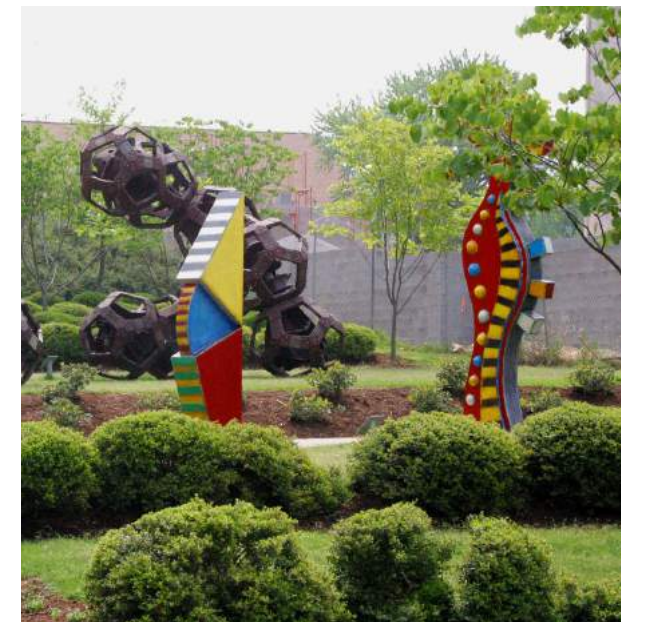
Small-scale sculpture in a public courtyard



Natural and industrial materials used in outdoor sculpture



Public art associated with the Tennessee Aquarium in Downtown Chattanooga



Large-scale outdoor sculpture in Downtown Chattanooga



A small ornamental feature on a building's exterior wall



Image of an interactive fountain in Chattanooga



Sculpture can be integrated into stormwater management and collection techniques



Landscape Elements

Proper detailing is critical to the success and visual integrity of urban open spaces. Appropriate details provide richness, a sense of place, and give scale to the landscape. Details can also enhance the ecological diversity and functional aspects of open spaces. The precedent photos on this page represent just a few possible details appropriate for Chattanooga.

Permeable Paving

Pavements are necessary for pathways and trails, but pavements that are permeable allow rain water to move through their structure and infiltrate into the sub-soil.

Regional Materials

Materials that are locally made, locally quarried or locally produced allow a project to feel as if it belongs to that region and nowhere else. Regional materials not only apply to building materials, but also to locally grown and harvested indigenous plant material as well.

Sculptural use of Water

Water can be one of the most powerful and expressive elements in the landscape. Captured stormwater can be artfully expressed and the process of movement and infiltration can be celebrated.



PERMEABLE PAVING EXAMPLES



LOCALLY-AVAILABLE MATERIALS



SCULPTURAL USE OF WATER

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Master Planning Background

THE CLIENT GROUP, The Lyndhurst Foundation, Pipe Properties, and Perimeter Properties appointed a Steering Committee who met collaboratively with the consultant team throughout the design process. In addition, other stakeholders were invited to focus group meetings to provide input and feedback.

The UDA consultant team included:

- » Urban Design Associates – Lead firm, urban design, planning
- » LaQuatra Bonci Associates – Landscape design
- » Walter Kulash, P.E. – Transportation

In addition, RiverCity Company separately engaged the following consultants:

- » Zimmerman Volk Associates – Residential Market Study
- » ZHA, Inc. – Commercial Market Study

The planning process for US Pipe/Wheland was completed in three phases:

- » Phase I Data Base and Analysis – Understanding (May-July 2007)
- » Phase II Charrette – Discovering (August 2007)
- » Phase III Final Plan – Deciding (August 2007- January 2008)

Phase I included an initial UDA team trip to Chattanooga in late May 2007 to meet with the Steering Committee and others, to collect base data and previous reports (such as market or environmental studies), and to document and photograph the site and adjacent neighborhoods. The UDA team prepared an analysis of the data, including UDA X-Ray® diagrams, summaries of issues, preliminary design principles, development frameworks, market studies, and engineering reports. Representatives of RiverCity, Pipe Properties, Perimeter Properties, and The Lyndhurst Foundation traveled to Pittsburgh for a one-day working session on August 6, 2007, prior to Phase II.

Phase II was done primarily in Chattanooga in August 2007 in the form of a four-day design charrette. Urban design alternatives were developed by the consultant team in collaboration with the Steering Committee and other invited stakeholders. A debriefing meeting with the Steering Committee concluded the charrette. One-day working sessions in Pittsburgh were held in September and November 2007 to refine the urban design master plan.

Phase III involved the preparation of this US Pipe/Wheland Foundry Master Plan final report. A draft copy was reviewed by the Steering Committee prior to final publication.



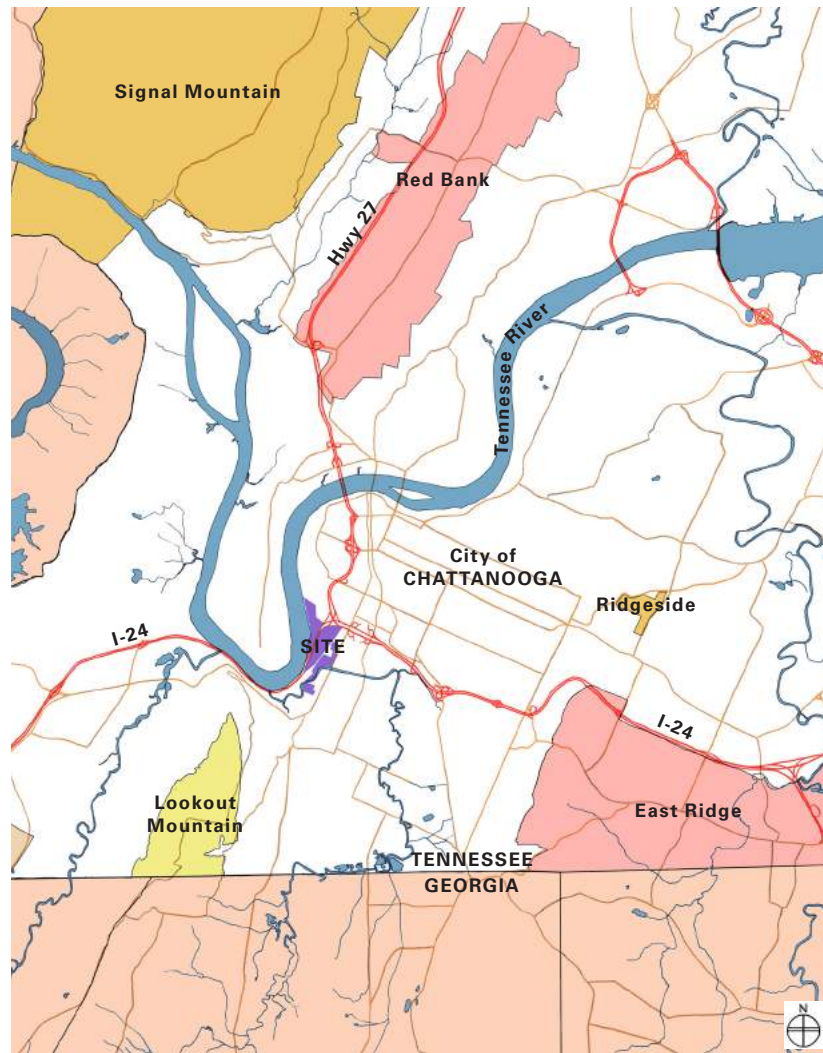
PLANNING PROCESS The master planning process engaged leadership groups representing the diverse interests of the Chattanooga community.

Analysis

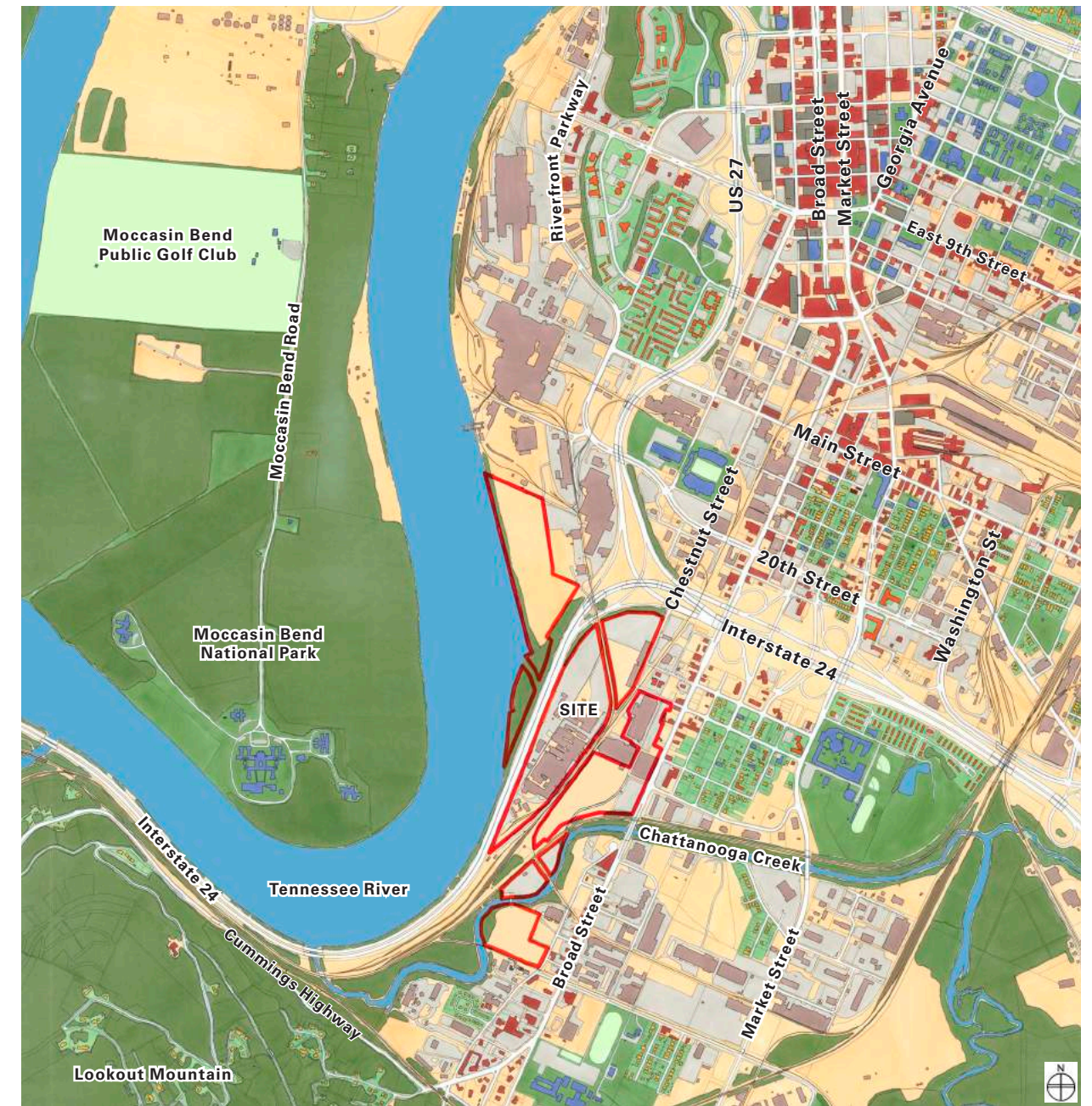
The Master Plan built upon previous planning and redevelopment efforts for Downtown Chattanooga and the Tennessee Riverfront, including, among others, the South Central Business District Plan, Tennessee Riverpark Master Plan, Chattanooga Riverfront Parkway Plan, 21st Century Waterfront Plan, 2030 Comprehensive Plan, 2025 Downtown Plan, and South Broad Redevelopment Plan.

In addition, the consultant team conducted on-site reconnaissance of the US Pipe/Wheland properties, adjacent neighborhoods, Downtown, and other significant places in Chattanooga. Photographs and measurements were taken in addition to the collection of additional documentation. Transportation data was collected and meetings held with government, highway, public works, and transit officials. The market consultants collected financial and demographic data from existing governmental and industry websites and other published information, as well as conducted interviews with real estate professionals, developers, and financial institutions.

Finally, input from community stakeholders was developed in a series of focus groups in Phase I that was summarized and distributed in both graphic and written forms.



REGIONAL LOCATOR MAP The City of Chattanooga is situated in Hamilton County, around the Tennessee River. The study area is located along a southern river bend.



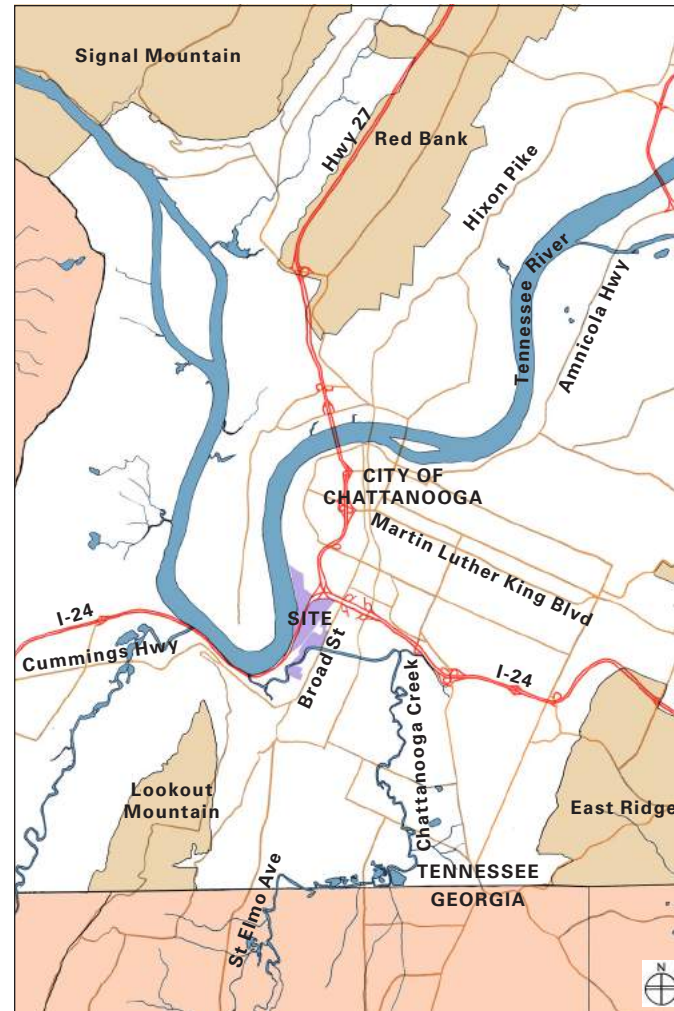
PORTRAIT OF EXISTING CONDITIONS A map was created to understand the patterns of current land uses in the City. The study area is outlined in red.

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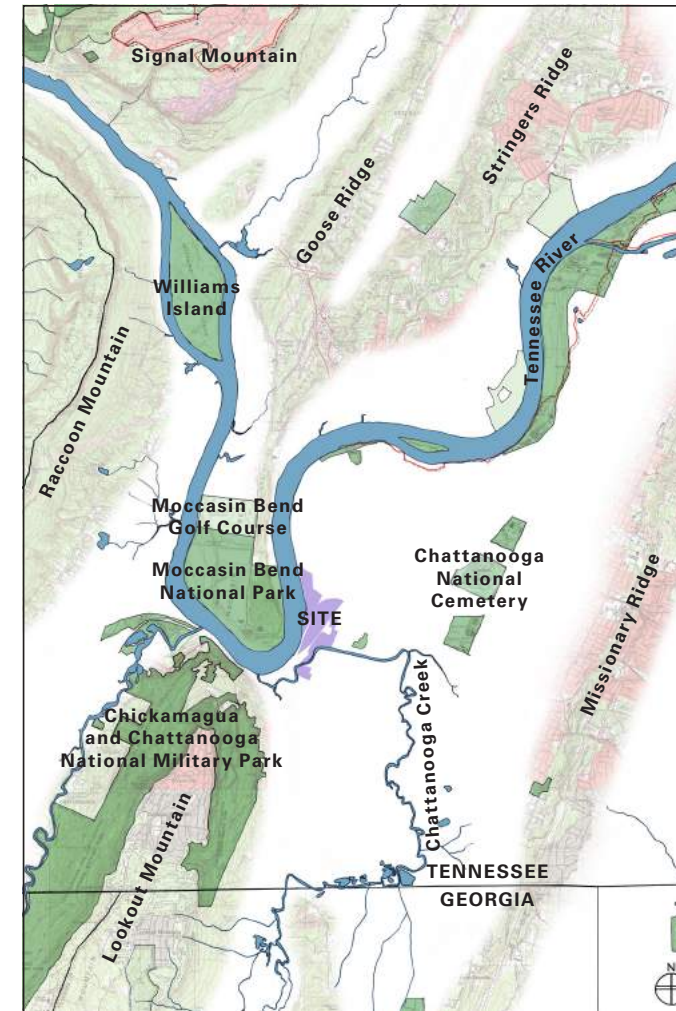
UDA X-Rays®

A primary tool in analyzing existing conditions are UDA X-Rays®, a technique whereby physical planning information is in effect ‘de-layered’ by displaying one attribute at a time. Land use drawings typically depict all characteristics on one multi-colored drawing. It is difficult to discern underlying patterns or structures. By isolating uses and physical features in one drawing at a time, these patterns become revealed.

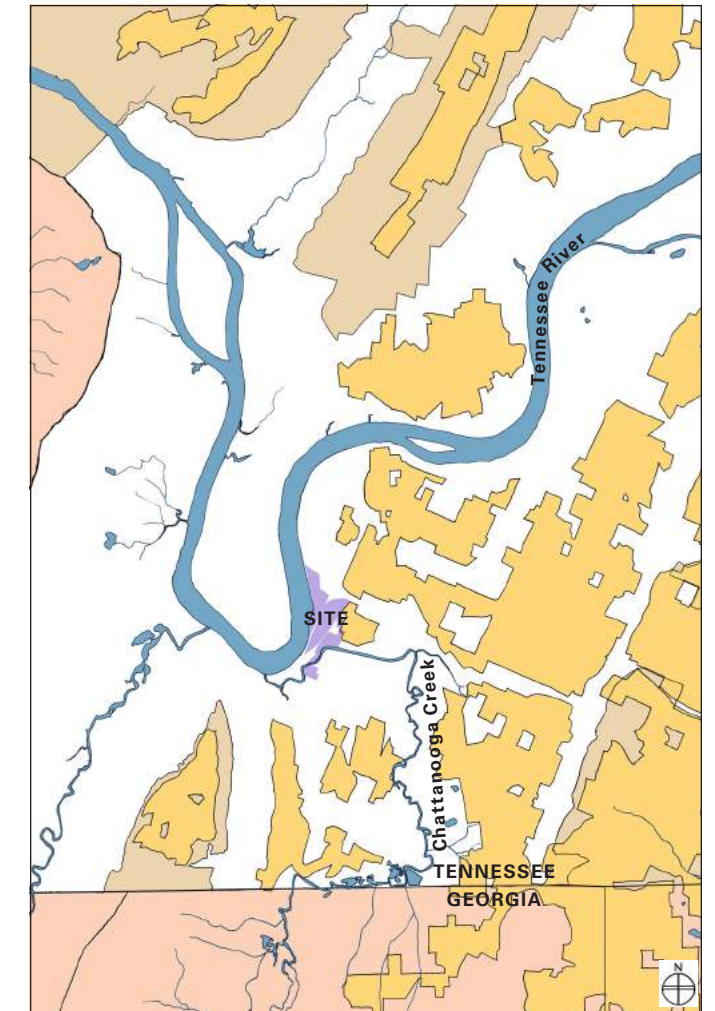
The X-Rays for the US Pipe/Wheland master plan were conducted at two scales of enquiry: regional (on this page) and project area (the following two pages). The transportation framework of highways and local streets becomes very apparent and clear in the drawings. Likewise the pattern of land uses (residential, commercial, industrial, and open space) is revealed one layer at a time. The building coverage X-Ray shows the density and scale of development on site and in adjacent areas. Parking lots and vacant lots diagrams identify sites where development can take place without displacing existing residents or businesses.



REGIONAL HIGHWAYS AND ARTERIALS
 Interstate 24 and US 27 converge at a point just south of Downtown Chattanooga, adjacent to the project site. These two highways provide regional access to the city center. Interstate 24 creates a barrier to accessing the river in the study area. Cummings Highway and Broad Street provide a full access, local entrance to the city from the west and south.

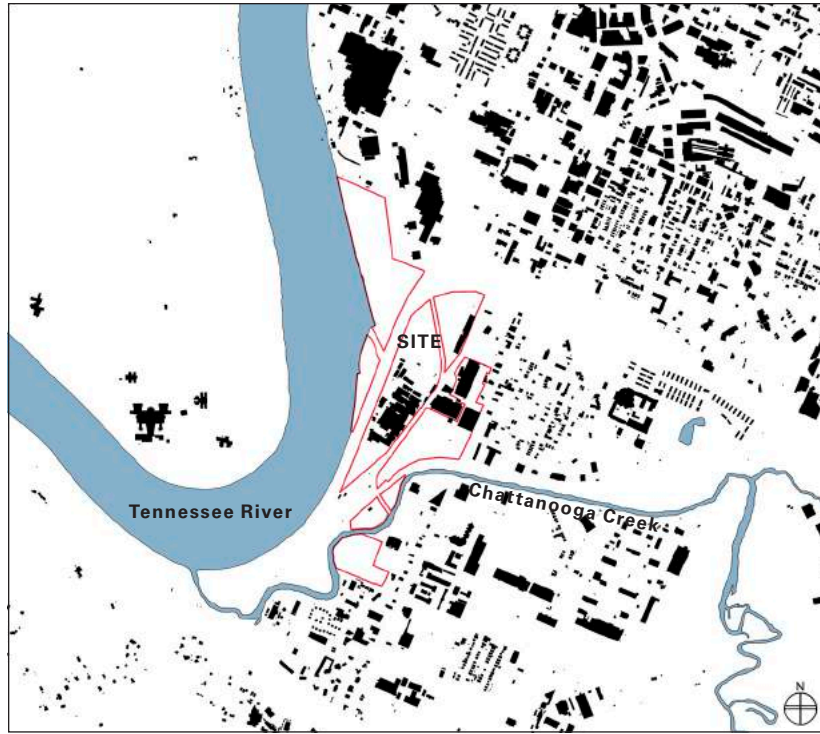


REGIONAL OPEN SPACE
 The Tennessee River passes the foot of Lookout Mountain at Moccasin Bend adjacent to the project site. These two natural features are widely-used open space corridors. Additionally, Chattanooga Creek enters the Tennessee River at this point. The location of the project site at the juncture of these various open space amenities provides an opportunity to create connections to the entire region.

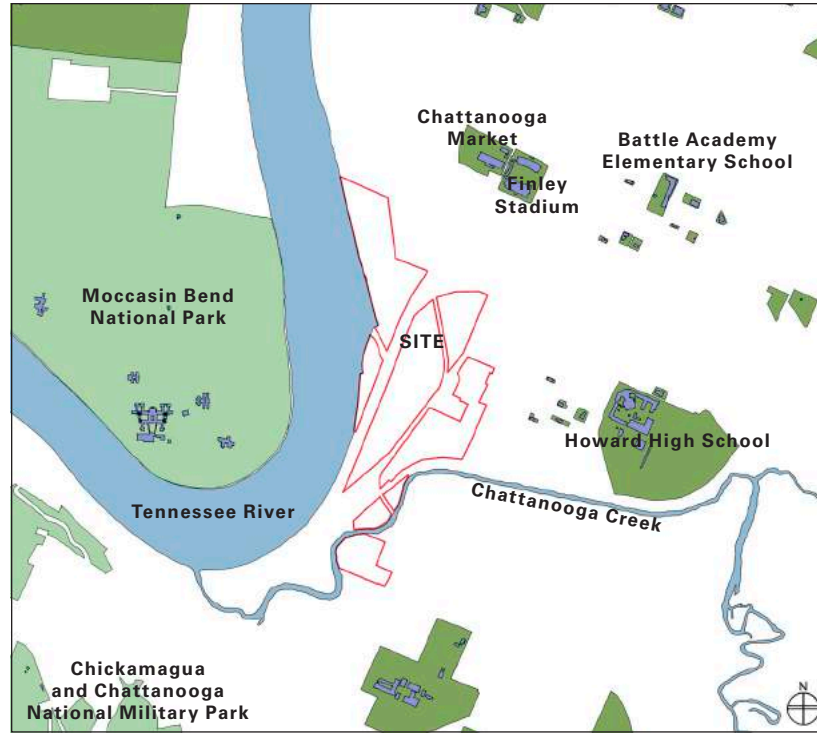


SETTLEMENT PATTERNS
 The mountainous topography of the region shapes the pattern of regional settlement. Most settlement in the City and surrounding area has occurred to the south and east of Downtown due to the availability of flat land. The northern and western portions of the region are much more mountainous and difficult to access. Industrial uses have historically tended to locate outside of the Downtown and adjacent to the Tennessee River, fragmenting the residential settlement patterns.

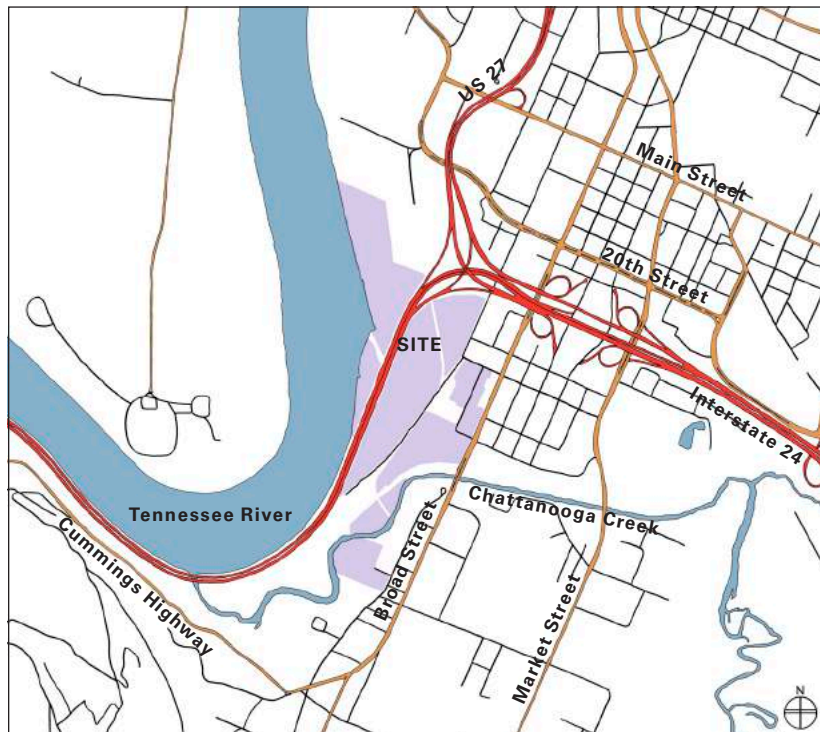
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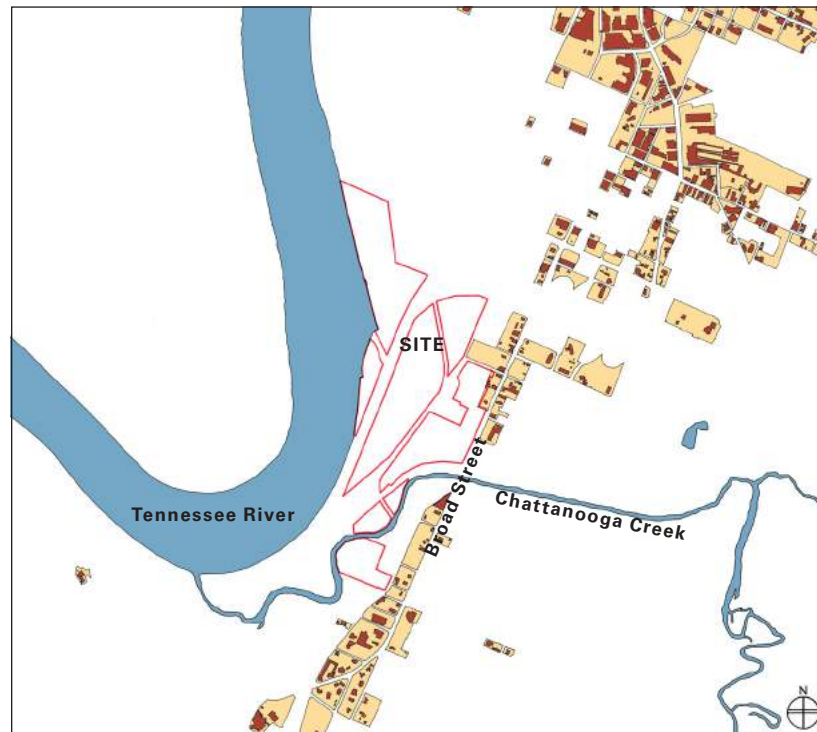
BUILDING FOOTPRINTS
 At the top of the map, Chattanooga's dense Central Business District can be located along with large industrial buildings on the Tennessee River. The rapidly re-developing residential neighborhoods are located just north of the project site, with the South Broad neighborhood to its east. The land south of Chattanooga Creek is occupied primarily by medium-sized warehouses and industrial buildings. Interstate 24 and US 27 account for the void north of the project site.



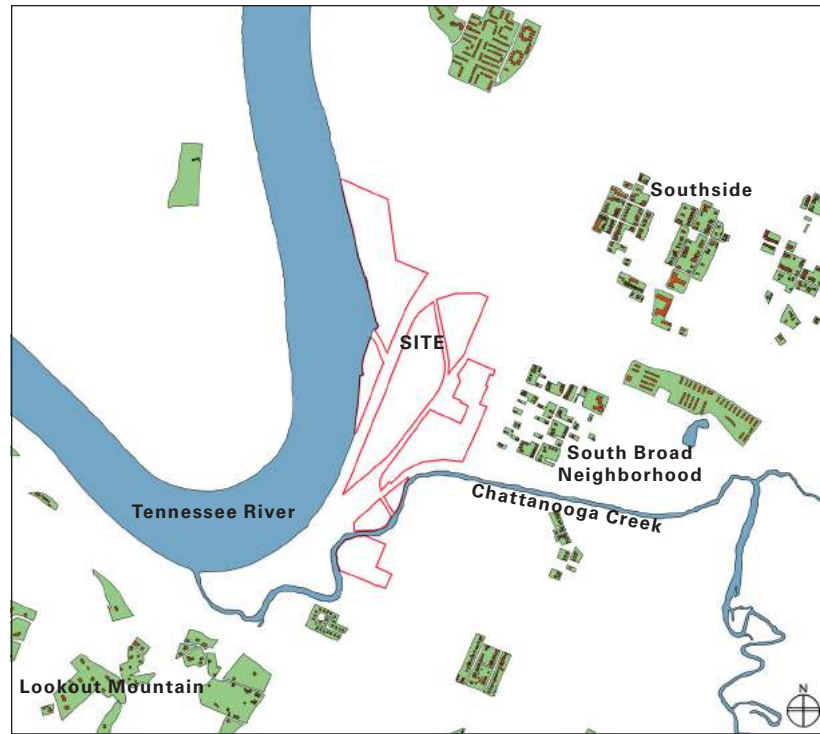
INSTITUTIONS, PARKS AND OPEN SPACE
 Many public institutions and schools (shown in dark green) are located rather close to the project site, as well as churches and other community facilities. Public open space (shown in light green) is nearby in the west. Moccasin Bend National Park is located immediately across the Tennessee River, and the popular tourist destinations of Lookout Mountain and Chickamagua and Chattanooga National Military Park are located just to the south of the project site. Chattanooga Creek joins the Tennessee River immediately south of the site and is the target of ongoing restoration efforts.



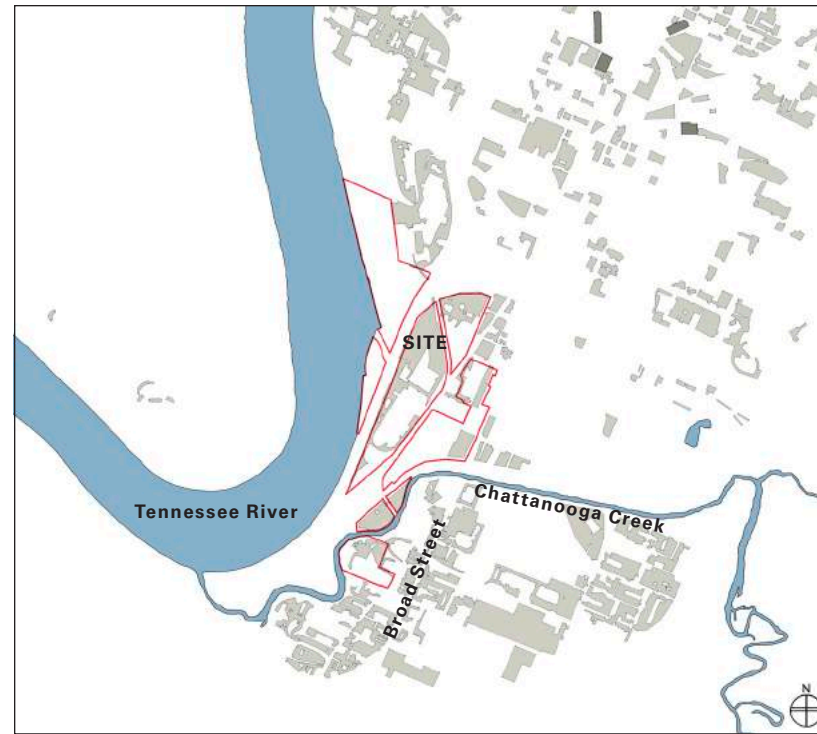
HIGHWAYS, ARTERIALS, AND STREETS
 Interstate 24 and US 27 are depicted in red. The interchange between these two highways, as well as the massive interchange of Interstate 24 and Broad and Market Streets is also recognizable. This interchange disrupts the City street grid. Broad and Market Streets are two major north/south arterials between Downtown Chattanooga and the site. Cummings Highway is the historic approach to the City from the west, and when combined with Broad Street, this provides an alternative access to the City besides to Interstate 24.



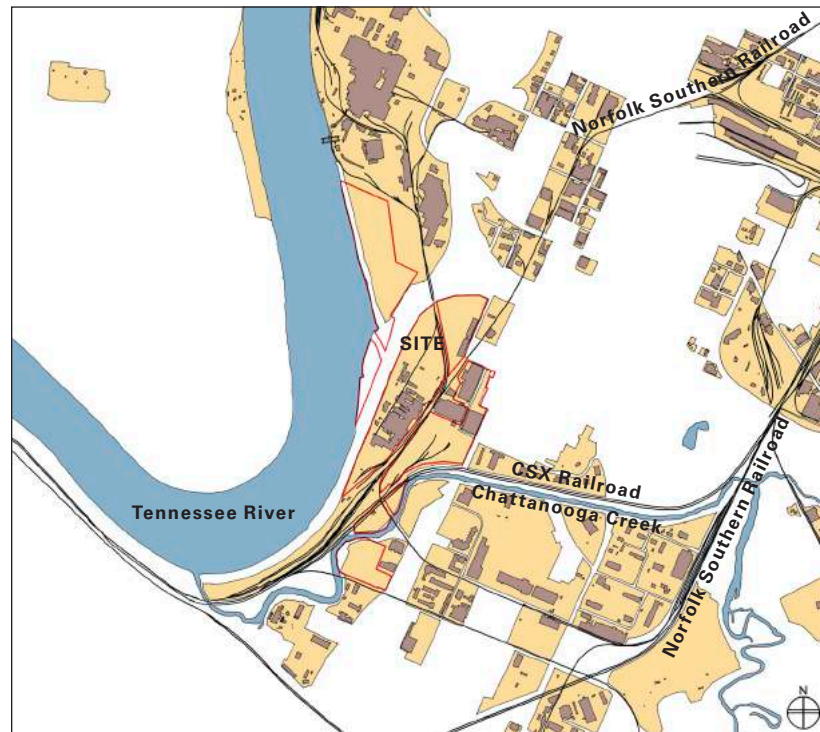
COMMERCIAL USES
 The large concentration of commercial uses (shown in red) at the top of the map represents Chattanooga's Central Business District. The prominent spine of commercial uses extending north/south is Broad Street. These uses are primarily auto-oriented in nature south toward St. Elmo, however, some of the commercial buildings near the project site are very attractive historic buildings in an urban relationship to the street.



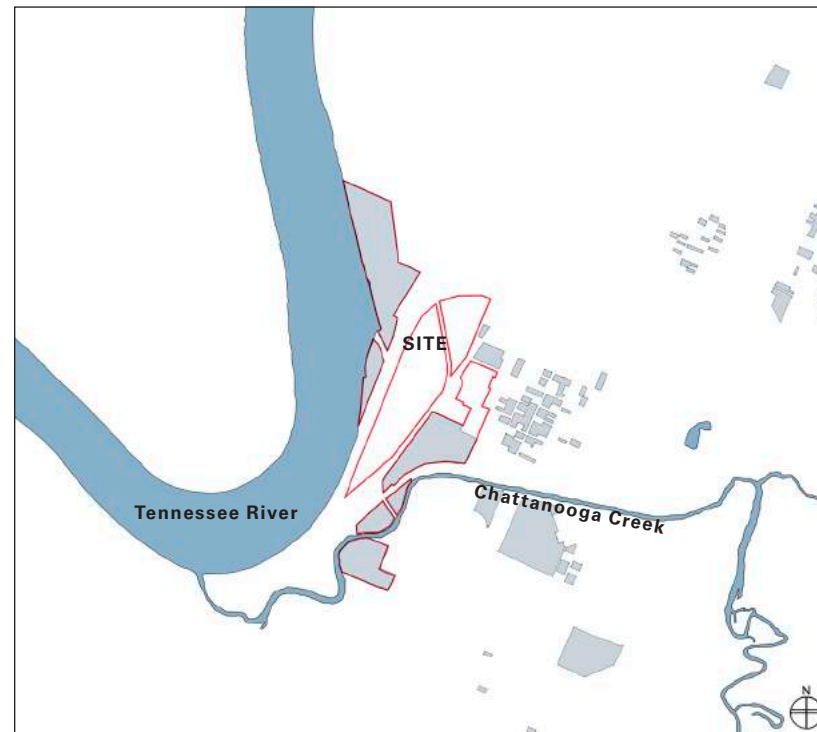
RESIDENTIAL USES
 The general lack of residential uses (buildings shown in orange) in the vicinity of the project site speaks to the largely industrial and commercial nature of the area. The Southside neighborhood is densifying while the South Broad neighborhood has many vacant lots. At the southern portion of the map, the large lot, low-density development that is typical of Lookout Mountain can be seen.



PARKING LOTS AND PARKING GARAGES
 Parking garages are shown in dark gray and surface lots in light gray. Parking garages are located in the Central Business District. The auto-oriented character of most uses in the vicinity of the project site is evidenced by the large number of surface parking lots, many occupying frontage on Broad Street.



INDUSTRIAL USES
 Industrial uses are shown in brown and rail lines are shown in black. This map indicates the historical tendency of industrial uses to locate near waterways and rail lines for ease of transporting materials. The project site abuts active industrial uses to its north and south. A CSX Railroad main line runs through the southern portion of the project site along Chattanooga Creek. CSX also operates a small rail yard along the Tennessee River, immediately south of the site. Norfolk Southern Railroad operates a lightly used line running through the project site to access industry to the north. The area south of Chattanooga Creek is largely occupied by warehouses and light industrial uses.



VACANT PARCELS
 The large number of vacant parcels (shown in gray) adjacent to the project site represent the prevalence of vacant lots in the South Broad Neighborhood. Also, a large portion of the project site is comprised of vacant land being prepared for redevelopment.

Transportation Issues

The examination of the existing transportation system on-site revealed two key characteristics: the importance of the I-24/Highway 27 interchange to future access and marketing of the district; the lack of connectivity between the site and city street grid caused by the lack of internal roads on site; and the termination of surrounding public streets, such as Chestnut Street and 28th Street, at the boundary of the property.

The urban design plan depicts an interconnected network of internal streets linked into the existing street grid. This network provides both access and multiple entrances into the district. The site becomes a seamless part of the urban fabric of Chattanooga.

The issue of the highway interchange is much more complicated and long range. Two issues emerged: access to the site by a new ramp from I-24; and the reconfiguration of the I-24 interchange. Both projects will involve the Tennessee Department of Transportation and expenditure of public funds.

The new ramp from I-24 is less complicated and costly, and would be an asset in marketing the project to other developers, new tenants, and new residents. The ramp is designed to terminate at an at-grade service road running roughly parallel to I-24 and will provide an important north/south link in the development.

The redesign of the I-24/Highway 27 interchange at Broad and Market Streets, as described earlier in this report, offers two significant advantages: better access and land. However, it will be a more complicated undertaking. Successful reconnection to the street grid, however, will provide untold benefits to the new district and the community as a whole.

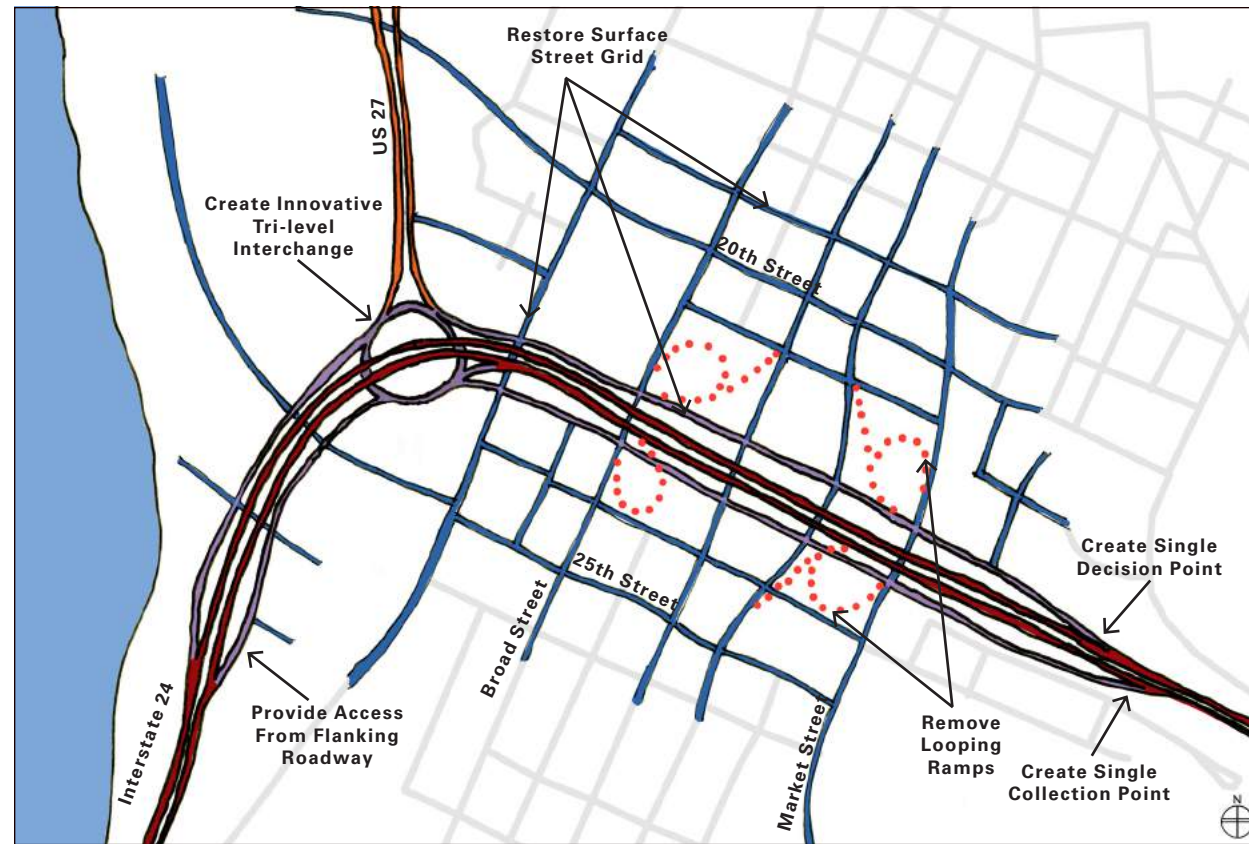


Diagram of transportation issues



26th Street in the vicinity of Interstate 24



Complicated signage on Interstate 24 / Highway 27

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28TH STREET GATEWAY

The Broad Street bridge over Chattanooga Creek lands northbound traffic at its intersection with 28th Street, one of the key entrances to the district in both its initial development and the build out. There is concern that safe turning movements are provided and protected so that this entrance acts as a true gateway into the new mixed-use district.

Four alternative strategies are typical in this situation, and a chosen solution or series of measures will need to be evaluated during detailed first phase planning.

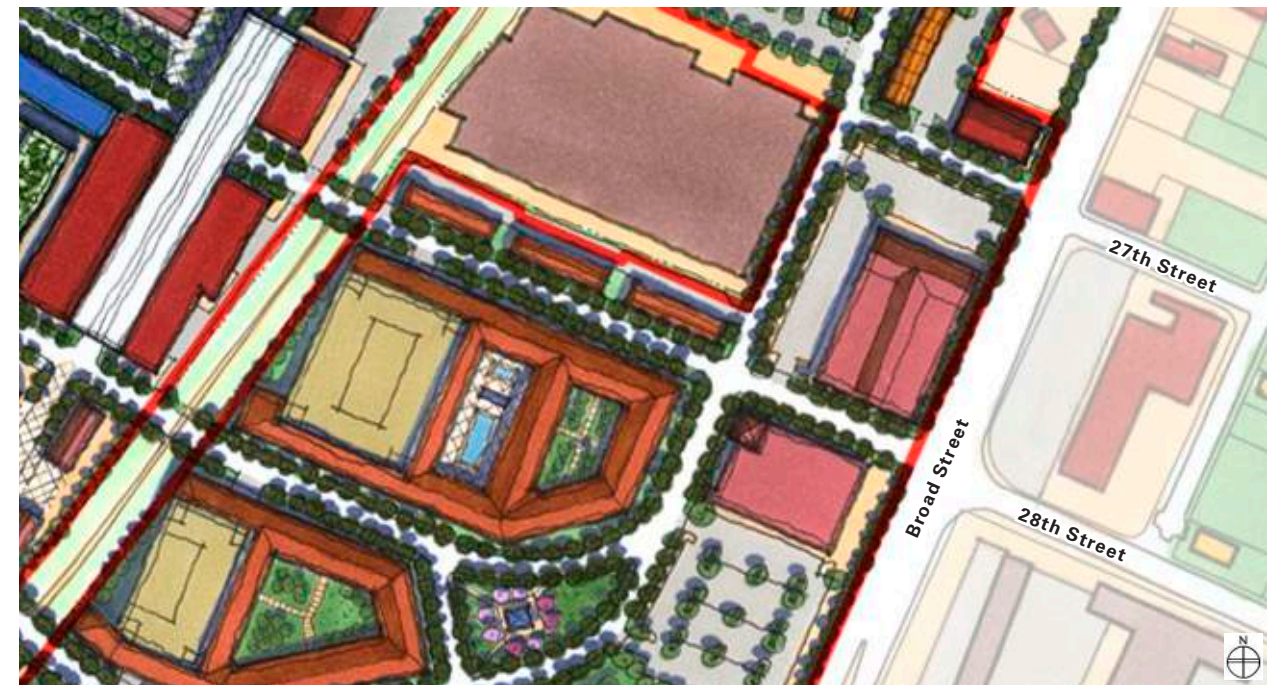
- » **SIGNALIZATION** : A traffic signal solves many of the problems of the short sight distance caused by the vertical curve over the bridge, by stopping traffic on Broad Street and thereby allowing conflict-free entry from 28th Street to both directions on Broad Street.
- » **HIGHER SIGNAL FACES AT INTERSECTION** : Two common enhancements are raising the height (to the maximum allowed by the Manual on Uniform Traffic Control Devices, or MUTCD) of the signal faces for northbound traffic at the intersection, or by additional signal faces for northbound traffic at an even higher elevation.
- » **AUXILIARY UPSTREAM SIGNAL** : An additional signal face for northbound traffic on Broad Street could be located near the crest of the vertical curve on the bridge. This type of auxiliary signal (included in the MUTCD), keyed to the operation of the intersection signal at 28th Street, warns those drivers that will be required to stop at the upcoming signal. Conversely, the auxiliary

signal reassures those drivers that will arrive at the intersection during their green phase that they will not be required to stop at the intersection

- » **LENGTH OF LEFT TURN LANE** : The northbound left turn lane for the movement from Broad Street can be extended for considerably more distance than the normal storage requirement of 60 – 100 feet. This longer left turn lane allows for smoother and faster transition into the lane by drivers intending a left turn, and more generous storage area for left-turning vehicles. The visibility of a left turn lane further in advance of the intersection alerts all drivers – those intending to turn as well as through drivers – that an intersection is near.

A less-often used solution, particularly where a good street network is available, as in this district, is to limit all turns to/from the major street (Broad Street) to right in/right out, by extending a median on Broad Street through the entire intersection area. This measure, which blocks through movement on 28th Street, should be held as a second level of approach, to be considered only if the signalization measures listed prove to be inadequate.

In further discussion of this situation, it will be most helpful to have a profile of Broad Street over the bridge and through the 28th Street intersection. Even a rudimentary profile would permit an assessment against the AASHTO stopping sight distances, a simple analysis that would confirm if a problem exists, as well as the appropriate remedial action.



Detail Plan of the 28th Street Gateway



View of the 28th Street Gateway

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TRUCK TRAFFIC IN THE NEW DISTRICT

If a northbound off-ramp is created running through the new district, measures can be taken to limit or balance its effects on the character of the district. Allowing large truck access is fundamentally a trade-off between the access for all users, including those of the new district, and the possibility of impacts. Unfortunately, there is no way to provide all of the access to the district but none of the trucks. However, there are some common approaches to striking an acceptable balance.

- » **TRUCK ROUTING** : While truck use of an Interstate highway ramp cannot be denied, a great deal of control can be exercised on routing beyond the Interstate right of way. Thus, a reasonable truck routing that avoids the district's truck-sensitive areas and creates greater impedance in terms of distance, time, and effort for trucks, could reduce or eliminate the advantage of cutting through the site.
- » **STREET DESIGN** : The principles of street design for the district reduce or eliminate many of the negative impacts of truck traffic. Chief among these street design features are the preponderance of two-lane streets, which eliminate vehicle overtaking, thereby improving the behavior of both trucks and automobile traffic. Tight urban intersections, particularly where trucks have to make a right turn, are a deterrent to cut-through traffic by trucks.
- » **VOLUNTARY AGREEMENT** : It is not unusual for major generators of truck traffic to agree, with a host community, to use a certain route for large trucks. Some compensating concessions,

such as signal phasing, turn radii, an on-street truck stopping zone at coffee shop, and the like along the preferred route could help sell such an arrangement.

- » **DE-MYSTIFICATION OF THE TRUCK TRAFFIC** : It is important through the construction of the district to truly evaluate the seriousness of the truck traffic in terms of perception versus reality. It is important to understand the traffic of major generators. In addition, preliminary traffic counts or models can be studied to understand if truck traffic surges at peak times, or an all-day problem.

In terms of marketing, consultants should be tasked to further understand if residential product types will be adversely affected by some trucks running through the district, or if trucks, needed for deliveries and support of a true, mixed-use area, actually positively influence the perception of the district as an authentic expansion of the urban fabric of downtown Chattanooga.



Detail Plan of potential I-24 ramp and interchange configuration



Typical pedestrian-friendly street within the district

Focus Group Summary

An important aspect of the master planning process was the involvement of key stakeholders beyond the ownership group. Although a full-blown public participation process was not conducted, it was essential to gather input from persons and organizations representing adjacent neighborhoods and businesses as well as those with city wide and regional interest in the redevelopment of the US Pipe/Wheland site.

On 30 and 31 May 2007, the following focus group meetings were held at the offices of the RiverCity Company:

- » Steering Committee
- » Elected officials, downtown stakeholders
- » Transportation, parks, open space
- » South Broad stakeholders
- » Industry and economic development
- 1 Housing and urban development

All participants were asked the same three questions about the Wheland/U. S. Pipe site:

- 1 What are the good things, the strengths of the site?
- 2 What are the bad things, the weaknesses of the site?
- 3 What is your vision in five or tens years for the site?

At the right is a summary of their responses. They are listed in rank order of response. Thus the most frequently mentioned items, such as “Gateway to Chattanooga,” are at the top of each list with decreasing frequency on down each list. However, all responses listed in the summary table at the right were mentioned multiple times and constitute a clear consensus on the issues from the six focus groups.

In addition, each person in each group was given nine paste-on dots (three green, three red, and three blue) and asked to place them on a map indicating good places (green), bad places (red), and

places where there is potential for new development (blue). These are compiled in the diagrams at the right and gave the consulting team important insights into the physical features of the site that would not have been available otherwise.

| KEY POINTS | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STRENGTHS / GOOD THINGS | WEAKNESSES/CONCERNS | VISION FOR THE FUTURE |
| Gateway to Chattanooga Tennessee River waterfront Historic buildings I-24 access Large Site Proximity to CBD Part of Chattanooga’s transformation Industrial heritage Local developers Views to and from the site Located midway between the Aquarium and Lookout Mountain Potential trail and Riverwalk connections The South Broad Initiative | I-24 interchange, noise, barrier Rail lines that split the site and block access to the river Negative industrial image Environmental issues, rehabilitation, and clean-up costs Large, complicated site Condition of South Broad Street Empty stretch between downtown and site Competition with CBD Current condition of Chattanooga Creek Isolated from Downtown and the South Broad Neighborhood Geotechnical concerns | Sustainable, green, and environmentally-friendly New, innovative businesses, and incubators Mixed-use center and main street River access and a new waterfront address Gateway entrance to the City Connected to CBD, Ross’s Landing, and Riverwalk State of the art place, inspiring UTC SimCenter located here Mix of housing types, live/work, and a new neighborhood Economic generator |
| | | |
| NOTE: SITE BOUNDARY SHOWN IN RED | | |