

# **The Ambitious City**

Stimulating Change Through The Urban Artifact

by

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## **Author's Declaration**

I hereby declare that I am the sole author of this thesis.  
This is a true copy of the thesis, including any required final  
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## Abstract

In the late twentieth century, global economic forces changed the face of many North American cities. Cities which were built upon industry, that had provided both job certainty and economic vitality, faced questions of survival in response to shrinking population and urban blight. Unprepared for these drastic changes and unable to address them survival gave way to resignation.

Buffalo, New York is an example of a once successful and vital city that continues to experience de-population due to the collapse of its industries. The collapse not only created economic repercussions but also effected the city's built environment. Many of the Buffalo's urban monuments, testaments to the ambition of the city, now sit empty; as do the working class neighbourhoods that surround them.

The Thesis examines the role which architecture can play in understanding, strategizing and re-envisioning the life of deteriorating cities. Focusing on the City of Buffalo, the design centers on the New York Central Terminal. It proposes a radical repurposing of the Terminal to create a new urban hub which will spur the re-building of the city's urban fabric.

The design outlines a staged 25 year strategy for the de-construction of sparse areas and the strengthening of critical urban networks, thus creating a strong framework upon which a new physical fabric for the city can build and develop overtime. The Terminal, once a significant rail hub is re-envisioned as a revitalized hub for the new city. A key connective point within this urban framework, it encapsulates a variety of program moved from the surrounding neighbourhood to the site. The Terminal will act as an architectural catalyst for change, working within the larger urban strategy to spur a natural re-growth and densification of the city.

The thesis presents the radical re-thinking of the architect's role in the twenty-first century. As current economies and industries face change the urban climate is adapting from one of constant growth to one of strategic re-use. Skeletons of once successful cities lay across the North American landscape. Their urban artifacts: the grain mill, steel manufacturing plant and rail yards, which once supported whole cities as both providers of employment and definers of cultural identity, now stand as empty reminders of a prosperous past. The Thesis shows how these buildings, like the New York Central Terminal can be given a renewed cultural significance and powerful roles within the revived urban life of their cities.



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*To my Mom and Dad*





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- 162 6.17 2009 "Ecologies of Decay" installation at Artspace, Buffalo.  
photograph by Dennis Maher, 2009.  
[http://www.buffalo.edu/ubreporter/2009\\_09\\_30/images/EcologiesOfDecay.jpg](http://www.buffalo.edu/ubreporter/2009_09_30/images/EcologiesOfDecay.jpg)
- 162 6.18 The artist walks through his 2006 "Eternal Ruins" installation  
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- 166 6.19 Historic Plan of Castelvecchio Complex  
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ibid., 84.



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Ibid., 130.
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Ibid.,115.
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## Preface

### Why Buffalo and The New York Central Terminal?

In early winter 2009, I went on a short trip to the City of Buffalo, New York. My previous experiences of this city were brief day trips revolving around outlet mall shopping or searching out a particular store non-existent in Canada.

The actual City of Buffalo had remained much of a mystery to me. The Peace Bridge crosses the Niagara River connecting the Queen Elizabeth Way in Fort Erie, Ontario to the 190 Expressway in Buffalo, New York. Crossing this bridge signaled entry on the 190 south for the short drive to Walden Galleria, the city's largest mall. On this drive one flies past Olmsted designed parks, abandoned grain elevators, the grand city hall and finally block upon block of derelict two-story homes. Nestled among these homes is the unusually situated New York Central Terminal. Miles from the highway yet clearly visible on the horizon, it rises high above the surrounding neighbourhood, oddly grand for such a humble setting.

On this winter day I did not take the typical route but ventured into the City of Buffalo. I drove through the monumental yet empty downtown, along Broadway into the neighbourhood of Broadway and Fillmore. The Terminal acting as my visual beacon.

The neighborhood was startlingly empty. Large blocks of empty lots, the few houses left were severely dilapidated, missing windows and floors, vandalized and in some cases stood as skeletal burnt out shells. There were also groupings of homes that were well kept, their lawns mowed, curtains in the windows and cars sitting in the driveway. Clearly a sign that people still lived in and cared about this neighbourhood.

The Terminal itself provided a similar experience to that of the neighbourhood. An abandoned space that still provided evidence of a vibrant past and glimmers of a hopeful future. An overwhelmingly large space it took hours to explore. Old furniture and papers were scattered within it's walls, reminders of the many people and packages that had passed through the space. The passenger platforms, once busy with the movement of incoming and outgoing trains were still and overgrown with plants and trees. The Terminal had a sublime beauty. There was a tension between the grandeur of the structure, a symbol of human and urban ambition, and its fragility as an abandoned building beginning to crumble beneath the forces of nature. It felt like one of the grand ruins of antiquity, such as the Roman Forum or the Colosseum. The feeling was one of both wonder, but also disquiet. Unlike the ruins of antiquity, this ruin had been a vibrant and functioning space just a generation before.

The visit to the Terminal allowed me to reflect on the role of architecture with the city. It acted as a reminder that no building is permanent but that certain buildings will remain long after their function has become irrelevant, still evoking a powerful impact on the city and its citizens. The New York Central Terminal's powerful presence, even in a state of decay lit a spark of inspiration within me. It signaled to me the potential for radical change that this building and city presented.



# Introduction

A shift in global economies has drastically changed life in cities across North American and Europe. Cities which grew and thrived upon their manufacturing industries and provided employment and economic stability now struggle to survive as post-industrial environments. A mass exodus, due to unemployment, caused a steady decline in population, contributing to problems of urban blight, abandonment and crime. In many cases the struggle to survive has given way to resignation and acceptance of the situation.

The City of Buffalo joins a long list of other once prominent industrial cities now endeavoring to find a new urban identity, some more successfully than others. In America these cities are located in the rust belt, an area *“in the northeastern and midwestern states ... in which heavy industry has declined.”*<sup>1</sup> The City of Detroit, Michigan known as America’s “Motor City”, because of its large automobile manufacturing industry, has faced a similar decline to that of Buffalo. Since the 1950s, the city population has shrunk. Many of its citizens leaving the downtown core for the city’s surrounding suburbs. This flight created an empty urban center, its abandoned buildings a memory of the city’s great past. Hamilton, Ontario, Canada and Liverpool, England are also dealing with issues of shrinking population and vacant urban centers. The city of Pittsburgh, Pennsylvania offers some hope. The city’s vitality was rooted in the steel industry, up until its collapse in the early 1970s, due to overseas competition. Unlike other cities, Pittsburgh has managed to have a renaissance. In the late 1970s the Pittsburgh History and Landmarks Foundation proved that historic preservation and re-use could spur change. The Foundation

1 Merriam-Webster Dictionary, <http://www.merriam-webster.com/dictionary/rust%20belt>

bought a variety of unused historic buildings, including the former Terminal building and Yards of the Pittsburgh and Lake Erie Railroad, and developed them into new mixed use developments<sup>2</sup>.

The restoration and development now draws thousands of visitors a year and is a valuable economic resource to Pittsburgh. The City of Buffalo and the problems that it faces are part of a much larger post-industrial narrative. The design for the Thesis places itself within this narrative, both gaining lessons and insight from the successes of Pittsburgh, and by providing insightful design solution for cities and communities which are still struggling.

Buffalo provides a canvas both of decline, neglect and abandonment as well as past ambition, grandeur and success. Nowhere can this juxtaposition be seen more clearly than in the city's urban artifacts, grand monuments that are important reminders of the city's past, still standing because of their everlasting presence in the city's collective consciousness. Aldo Rossi looks at urban artifacts within the theory of permanences explaining them as the "...past that we are still experiencing."<sup>3</sup> He distinguishes those which are propelling, allowing one to understand the city in its totality and those that are pathological, appearing as isolated elements that link only tenuously to an urban system. Buffalo's urban artifacts exist only pathologically because they lack a strong urban network to connect them. The Thesis looks to the architecture of Buffalo, the city's urban artifacts, as a catalyst for change. Centering focus on the abandoned New York Central Terminal, an Art Deco train terminal built in 1929 located in the East Buffalo neighbourhood of Broadway and Fillmore. It proposes a radical re-purposing of the Terminal as a hub within a larger network spurring the durable remaking of Buffalo.

The Thesis presents both a Staged Strategic Plan to consolidate the City of Buffalo over a twenty-five year period and a design proposal for the re-purposing of the New York Central Terminal Building, one of Buffalo's most prominent vacant urban artifacts. It presents a series of Design

Guidelines for each stage which can be used as a template for other cities facing similar issues. The Strategic Plan also outlines a Schematic Design at three scales: that of the City, Neighbourhood and Building. The design is presented in five stages, with the aim to create gradual long lasting change, over time. The design focuses on creating a variety of strong urban networks which connect existing urban artifacts. At the same time it recognizes the City's problem of urban blight, decay and abandonment, and through careful analysis proposes strategic de-construction of vacant structures; providing an urban environment in which the city can shrink intelligently. Large sparsely populated areas are de-constructed and density is focused along new urban networks creating a framework in which the city can shrink while still remaining vibrant, with the possibility for future growth.

The design proposal for the New York Central Terminal integrates the larger strategic plan by envisioning the Terminal as a multi programme urban hub which has strong connections to the City's urban systems. The programme proposed has direct connections with the neighbourhood and City, emphasizing the importance of community and of strong relationships and alliances between the many tenants and organizations housed within the Terminal. The design recognizes the relevance of the buildings original use as a railway hub which connected rail passengers and goods from across the country to the City of Buffalo. It seizes upon opportunities created by the existing building's form and function which allow for a diverse variety of programme and the flow of people, goods and various modes of transportation. Re-appropriation and re-use of these areas within the building is crucial to the designs success.

However, the design also seeks to re-envision the Terminal as much more than a restored historic artifact. New architectural elements sit in radical contrast to the existing building, creating new paths of circulation, providing a fresh experience of the building and site itself. Finally, the beauty of the ruin is preserved within the building. Frames

<sup>2</sup> Pittsburgh History & Landmarks Foundation, "Mission & Brief History" <http://www.phlf.org/a-brief-history-of-pittsburgh-history-landmarks-foundation/>

<sup>3</sup> Aldo Rossi. *The Architecture of the City* (Cambridge, MA: The MIT Press, 1982), 59.



or building shells of some parts of the complex have been preserved and landscaped as a reminder of the state that the building sat in at the beginning of the design process.

Although the Terminal Design and Strategic Plan touch upon both political and economic issues, these are not the focus of the Thesis. The Terminal is intended to function as a large mixed use complex for both public and private use. The larger Strategic Design for the neighbourhood and City is a mainly public project that would involve some private partners. The funding for the project is assumed to be from public private partnerships. A variety of corporations, organizations and grass-roots initiatives would share in the funding due to the opportunities and facilities the Terminal would provide them with. Public funding would be shared throughout all levels of government. Similar re-development proposals in the City of Buffalo have received funding from the federal government's Recovery Act and The New York State Division of Housing & Community Renewal, to turn blighted neighbourhoods and vacant building into quality homes and green space<sup>4</sup>. New York State's, Empire State Development Corporation, also provided funding to similar projects through its "Restore New York Communities Initiative"<sup>5</sup> which aimed to provide municipalities with funding to revitalize commercial and residential properties. It is evident that there are a variety of funding sources available for such projects. The thesis will accept this and focus on the concepts and design rather than detailed feasibility issues.

4 New York State, Homes & Community Renewal, "PUSH Buffalo Received First Award under HCR's Sustainable Neighborhoods Program", <http://www.nyshcr.org/Press/News110418.htm>.

5 Empire State Development, "Restore New York Communities Initiative", <http://www.esd.ny.gov/BusinessPrograms/RestoreNY.html>.



# Introduction

## Thesis Structure

The Thesis structure is as follows:

### **Preface**

### **Introduction**

#### **1 A History of Buffalo**

This chapter provides a historical overview of the City from the late 1700s to the present. Political, cultural and economic issues which have shaped the city over time are discussed.

#### **2 Buffalo Today: A Demographic Analysis**

This chapter presents a statistical analysis of current day Buffalo. The analysis outlines prominent issues facing the city.

#### **3 Design Techniques and Intentions**

This chapter outlines the design techniques used to inform the Thesis. It investigates theories and projects that use these techniques to gain insight from their intent. Specific projects are further investigated in *Appendix A*.

#### **4 Staged Design Strategy: A 25-Year Plan**

This chapter presents a multi-scale Staged Design Strategy for the Terminal, Neighborhood and City. A schematic design is outlined at each scale and stage, as well as broad guidelines that can be applied to other similar projects.

#### **5 Design**

##### *i. Programme Function*

Part One demonstrates how the Terminal building functions as a multi programme hub, connected to a wide variety of larger networks across the region.

##### *ii. Narrative Vignettes*

Part Two presents the Thesis vision through images, as well as a narrative description, presenting pivotal images of the design throughout its twenty-five year development.

### **Conclusion**

#### **Appendix A: Precedents**

This appendix provides an in-depth study of projects and mentioned in *Chapter 3*.

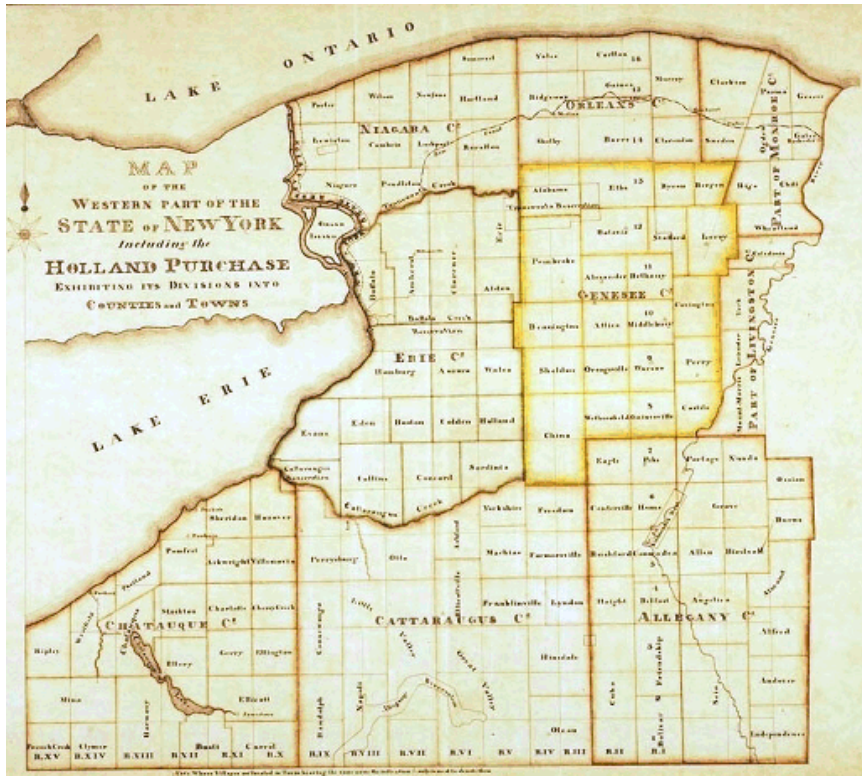
#### **Appendix B: Drawings**

A drawings set of the Terminal design, to be used for reference purposes.



## A History of Buffalo

The City of Buffalo has experienced a turbulent history. The City was almost completely destroyed by fire in the War of 1812. It was rebuilt and grew in both size and success well into the mid 1900s. Its ideal location, on the shores of Lake Erie and at the terminus of the Erie Canal, made it an industrial hub. It was also a rail hub, a stop midway on the trip from New York to Chicago. However, as industry moved overseas and the automobile replaced the train, the City's success dwindled. Buffalo has been in decline since the 1950s. Factories have closed and people have moved away. Problems of blight, unemployment and crime face the Buffalo of today. However, its strong citizenry, rich cultural history, beautiful buildings and parks provide hope for future growth and recovery.



1.1 Map of The Holland Land Purchase

1.2 Map of Buffalo 1805 (right)

1.3 View of Buffalo 1825





## A History of Buffalo

Settlement to City  
1797-1830

The land at the foot of Buffalo Creek where the Niagara River meets the shores of Lake Erie was originally settled by the Seneca Indians. In 1797, the 1.3 million acre settlement was bought from the Seneca Indians by the Holland Land Company for \$100,000. The Holland Land Company consisted of thirteen Dutch investors from Amsterdam who were interested in purchasing land in Western New York State and Pennsylvania. The Holland Land Company would eventually own two thirds of Western New York, this tract of land becoming known as "The Holland Land Purchase"<sup>1</sup>(Figure 1.1). Joseph Ellicot, a surveyor hired by The Holland Land Company, plotted the original street grid, which was modeled on that of Washington D.C.<sup>2</sup>(Figure 1.2). The settlement was originally re-named New Amsterdam, but later adopted the name of The Village of Buffalo. Buffalo's location along the Niagara River and Lake Erie, made it an ideal place from industry. About 500 families settled the area and set up a variety of industries that relied on water, including saw mills and brick plants.

The War of 1812, fought between American forces and forces from the British Empire, located in Canada, affected the city severely. During the war, almost all of the buildings in the city were burnt to the ground. After the war, Buffalo was rebuilt and its infrastructure was improved. The Harbour Commission received \$12,000 from New York State to improve the City's harbour facilities and to create a new canal system which became know as the Erie Canal<sup>3</sup>.

The Erie Canal ran 584 km from its start in Albany, New York on the Hudson River, to Buffalo on Lake Erie. The canal allowed Buffalo to develop as an inland-port. It allowed goods shipped from the Eastern Seaboard to be distributed to the interior of the United States. The canal was finished in 1825. 972 vessels passed through in its first year of completion, compared with only 120, five years earlier<sup>4</sup> (Figure 1.3). The City's expanding industry and improved infrastructure spurred massive growth of its population.

1 Robert W. Silsby, *The Holland Land Company in Western New York*, Buffalo and Erie County Historical Society, 5.

2 Jim Bisco, *Buffalo: a Greater Look at Greater Buffalo*, Northridge, CA: Windsor Publications, 1986, 34.

3 *Ibid.*, 36.

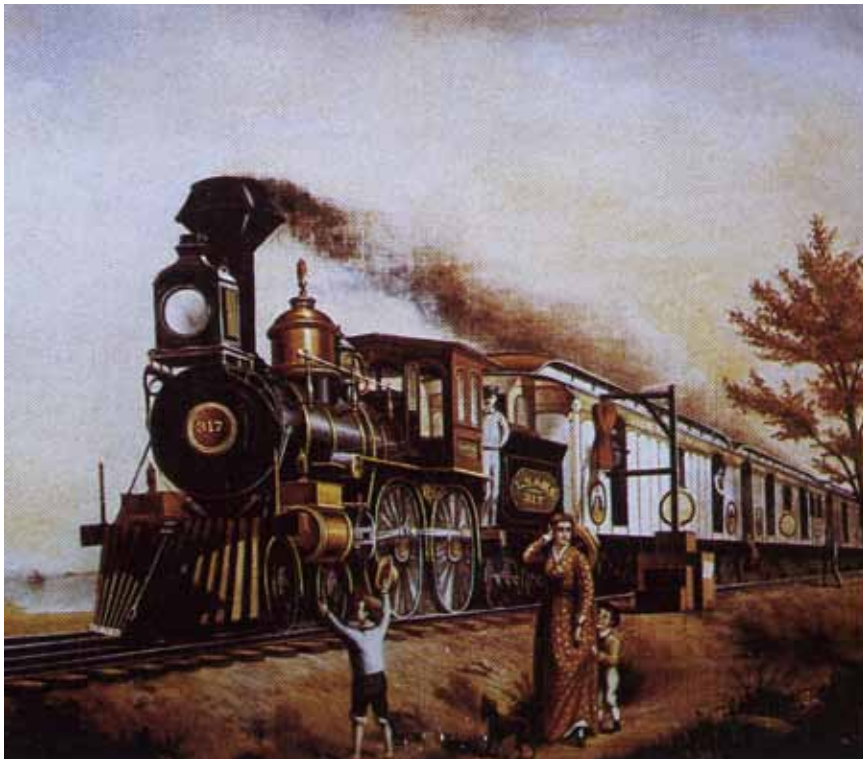
4 *Ibid.*, 40.



1.4 View of a canoe race on the lake at Olmsted's Delaware Park

1.5 View of a steam locomotive entering Buffalo in the mid 1800s

1.6 Map of Buffalo 1896 (right)







## A History of Buffalo

### An Industrial Power 1831-1900

Buffalo was incorporated as a city in 1832. By 1843, the Erie Canal's traffic had increased to 5443 vessels a year<sup>5</sup>. The invention of the grain elevator in the 1840s by Buffalo natives Joseph Dart and Robert Dunbar<sup>6</sup> made the unloading of grain from ships a more efficient and economical process. The city had become one of the United States most prominent grain ports, moving 200 million bushels of grain in 1896<sup>7</sup>.

As industry grew so did the city. Benjamin Rathburn, a master builder and Buffalo native, was responsible for many of the City's prominent buildings built in the early 1800s. In 1868, renowned landscape architect Frederick Law Olmsted was commissioned to design a parkway and park system<sup>8</sup> in the rapidly growing North End (Figure 1.4). As the City continued to grow toward the end of the century, many new homes were built in the Victorian style. Toward the end of the century, downtown Buffalo grew upwards. In 1895, Chicago based architect Louis Sullivan and Dankmar Adler completed "The Guaranty Building" in Buffalo's downtown, an elegant thirteen-storey terra-cotta faced building<sup>9</sup>. In the same year Buffalo became the first city in the United States to get electricity. The hydro electricity was provided by the powerful current of the Niagara River.

The first railway line arrived in Buffalo in 1834 (Figure 1.5). Buffalo's first stations lobbied the City in order to gain permission to connect the Exchange Street and Erie Street stations with a new rail line, eventually becoming known as the "Belt Line". The "Belt Line" created a continuous rail route around the city. By 1900, Buffalo was connected to 29 railway lines, with 250 passenger trains passing through the city everyday<sup>10</sup>. These rail connections make the City a day's journey away for approximately 40 million people across the United States.

5 Jim Bisco, *Buffalo: a Greater Look at Greater Buffalo*, Northridge, CA: Windsor Publications, 1986, 43.

6 Reyner, Banham et. al, *Buffalo Architecture: A Guise*, Cambridge: MIT Press, 1981, 29.

7 *ibid.*, 26.

8 *ibid.*, 15-16

9 National Parks System, *Future US Nominations to the World Heritage List*, <http://www.nps.gov/history/worldheritage/list1.htm>

10 Jim Bisco, 45.





1.7 View of the Pan American Exposition, featuring buildings adorned with Edison light-bulbs to feature Buffalo's new hydro electricity

1.8 Image of the New York Central Terminal, 1929

1.9 Map of Buffalo, 1901 (right)





## A History of Buffalo

### Turn of the Century: The Depression & World War II 1901-1950

At the turn of the century, Buffalo was a highly successful city. It was chosen to host the Pan-American Exposition in 1901 due to its size and railway connections. The buildings created for the exposition showcased the City's new electrical lighting (Figure 1.7). The exposition also took advantage of the City's new electrically powered street cars. In the coming decades Buffalo continued to grow and by 1948 it had reached its largest population of more than half a million people<sup>11</sup>.

The City continued as an industrial power house expanding into the steel and brewing industries. In 1900, the city was home to 4,000 various plants which employed approximately 150,000 people<sup>12</sup>. Toward the middle of the century Buffalo's industries expanded into automobile and aviation production. The City reached its manufacturing peak in the middle of the 20th century in part due to the industrial demands of World War II. At this time Buffalo did three quarters of the nation's milling, it was the nation's largest inland port and the twelfth largest inland port in the world, as well as the nation's sixth largest steel producer and the nation's eight largest manufacturing center.

In 1900, Buffalo was America's second largest rail center<sup>13</sup>. Due to its importance as a rail center, a new station was proposed for the city, one that would rival the stations of New York City. The station, The New York Central Terminal finished construction in 1929 (Figure 1.8). It cost \$14 million to build and was a testament to the Art Deco style of the time. However grand as the station was, it did not see the same success as the Exchange Street station because of its location on Broadway in East Buffalo, a residential neighborhood far from the downtown core. However, during World War II the station saw its most passengers pass through its doors, acting as a transit hub connecting returning soldiers to their families in the Central and Western United States.

11 U.S. Census Bureau, *Population of the 100 Largest Cities and other Urban Places in the United States: 1790 to 1990*, June 1998. <http://www.census.gov/population/www/documentation/twps0027/twps0027.html>

12 Jim Bisco, *Buffalo: a Greater Look at Greater Buffalo*, Northridge, CA: Windsor Publications, 1986, 50.

13 *ibid.*, 51.





1.10 Image of Equal Rights rally in downtown Buffalo 1960s

1.11 Map of Buffalo of Buffalo 1951 (right)





## A History of Buffalo

### A City in Decline 1951-1986

Buffalo's prominence as an inland port began to dwindle with the introduction of the new St. Lawrence Seaway which connected the Eastern seaboard to the centre of the nation via the Great Lakes. In the first year of the seaway's operation, grain shipments to Buffalo decreased by 45%<sup>14</sup>. By the 1960s grain shipments were bypassing Buffalo completely and being shipped to Montreal instead. Employment in the grain industry dropped by a drastic 80% from 1960 to 1980<sup>15</sup>, with one of the largest mills in the City, Standard Milling closing in 1981. The steel industry also suffered, as foreign production decreased demand for domestic orders and by 1982 Bethlehem Steel had closed.

During this period of industrial decline Buffalo's downtown was struggling to stay afloat. A once vibrant centre there were no longer enough people in the city to support it. In the 1970s a plan was purposed to revitalize the downtown by connecting it to the University at Buffalo with a light rail line. The hope was that commercial development could be supported along the rail line because of the influx of people coming into the downtown core. Construction of the transit line began in 1980 however the projects power to single-handedly revitalize the core fell short of expectations.

The racial composition of Buffalo was also changing. Like many cities, Buffalo saw a post-war flight to the suburbs by many of its white citizens. In 1950s, because of government subsidies and better jobs many of the City's white residents migrated to the suburbs. The physical, economic and social divide between blacks and whites within the city was very apparent (Figure 1.10). In 1967 tensions came to a boiling point and race riots took place in Buffalo's East Side from June 27 to July 1. The riots virtually shut down the city and more than 40 people were injured<sup>16</sup>. Dr. Martin Luther King visited the University at Buffalo on November 10 of that same year giving a speech to 2,500 people entitled "The Future of Integration." However into the 1980s, the city's racial divide remained ever present.

14 Jim Bisco, *Buffalo: a Greater Look at Greater Buffalo*, Northridge, CA: Windsor Publications, 1986, 56.

15 *Ibid.*, 58.

16 "The 1967 Riots in Buffalo, N.Y.", *The Buffalonian*, <http://www.buffalonian.com/history/articles/1951-now/1967riots/index.html>





1.12 View of an abandoned factory by Buffalo harbour

1.13 View of vacant homes, abandoned and now owned by the city

1.14 Satellite Image of Buffalo 2011 (right)





## A History of Buffalo

### Lost Identity 1986-2011

From the mid-1980s onward, Buffalo has continued to decline. In 2009 the city's population of 273,335<sup>1</sup> was smaller than it was in the year 1900. In a mere century the city has shrunk by more than half. The population loss is due in large part to the City's loss of industry. Vacant factories are a common site in the city (Figure 1.12). As factories have closed there has been a residential exodus. Many of the cities residential neighbourhoods are characterized by empty lots and vacant or burned out buildings (Figure 1.14).

However, the city still has much to offer its citizens. It has a vast array of cultural institutions, many of which are listed on the National Historic Registrar. These buildings and places have been designed by some of the most prominent designers of the 20th century including, Fedrick Law Olmsted, Frank Lloyd Wright, Louis Sullivan and Eero Saarinen.

Although the City has a small population, it has a strong sense of community. Citizen and grassroot initiatives to revitalize Buffalo have flourished. The city has also received millions of dollars in funding from various grants and awards from President Obama's administration's "Recovery Act," aimed at restoring the nations economy following the 2008 recession. The combined efforts of local residents, private corporations and government initiatives provide hope that the city will experience a renaissance.

<sup>1</sup> U.S. Census Bureau "Buffalo: New York: 2005-2009 American Community Survey 5-Year Estimates"  
[http://www.factfinder.census.gov/servlet/ACSSAFFacts?\\_event=Search&geo\\_id=&\\_geoContext=&\\_street=&\\_county=Buffalo&\\_cityTown=Buffalo&\\_state=04000US36&\\_zip=&\\_lang=en&\\_sse=on&pctxt=fph&pgsl=010](http://www.factfinder.census.gov/servlet/ACSSAFFacts?_event=Search&geo_id=&_geoContext=&_street=&_county=Buffalo&_cityTown=Buffalo&_state=04000US36&_zip=&_lang=en&_sse=on&pctxt=fph&pgsl=010)





## Buffalo Today: A Demographic Analysis

Buffalo faces challenges that other post-industrial cities in North American and Europe are facing. These issues become glaringly evident when the demographics of Buffalo are shown in comparison to the rest of the nation. The demographics show a three tiered analysis: nation, city and finally the Broadway and Fillmore neighbourhood in which the site is located.

The analysis focuses on demographics which have been effected by the city's shift from a manufacturing hub to one that no longer has a thriving industrial base. The city's predominant forms of employment are now low paying jobs in public service and the retail industry. Many Buffalonians make minimum wage or are unemployed. Approximately one in four families in the city live below the nations poverty level<sup>1</sup>. The economic shift has affected the population of the city greatly. Once one of the largest cities in the nation, Buffalo's population continues to decline annually. The shrinking population is evident when looking at the city's built landscape, many of its buildings and houses sit vacant. The vacancies have made many neighbourhoods undesirable and housing values have dropped significantly and are now well below the national average<sup>2</sup>. The Broadway and Fillmore neighbourhood is a clear example of all these problems. It also displays a clear demographic divide within the city, the residents most destitute are predominantly Black while many of the White residents have migrated to the city's surrounding suburbs.

Factors both economic, physical and cultural shaped the struggling City of Buffalo that exists today.

<sup>1</sup> U.S. Census Bureau, *American Community Survey 2005-2009: Buffalo, New York - Selected Economic Characteristics*

<sup>2</sup> U.S. Census Bureau, *American Community Survey 2005-2009*



# Buffalo Today: A Demographic Analysis

## East Buffalo: The Broadway & Fillmore Neighbourhood



The community of East Buffalo has been drastically affected by the city's de-industrialization. The community is comprised of five neighbourhoods : Broadway & Fillmore, Emerson, Lovejoy, Babcock and Kaisertown. The area is characterized by a grid of large commercial boulevards transversed by a finer grid of residential blocks made up of modest one and two storey houses; these homes are interspersed with grand churches, remnants of the areas Polish-Catholic history. Cutting through the community are rail lines, once an important connection for local industry and a mode of transportation for residents. Empty factories and warehouses buffer the rail lines, they once employed many area residents. More then one-third of the residents have left the neighbourhood since 1970 due to lack of work<sup>3</sup>. Abandoned homes and businesses are reminders of a once vibrant neighbourhood (Figure 2.1 & 2.2).

The Broadway and Fillmore neighbourhood has a dire outlook. Although it is the most populous neighbourhood in East Buffalo, its population has also dropped sharply. The neighbourhood faces increased crime, poverty, unemployment and housing vacancy rates. The New York Central Terminal sits within this neighbourhood, its current state of decay and semi- abandonment a symbol of a once successful and vibrant area that is now in decline (Figure 2.3). Despite these issues the neighbourhood remains a historically and architecturally rich community.

<sup>3</sup> GNPA, "East Buffalo Neighbors' Planning Alliance Neighborhood Plan" (Prepared as a Component of The Queen City in the 21st Century: Buffalo's Comprehensive Plan,2007). Sec 3, 7.

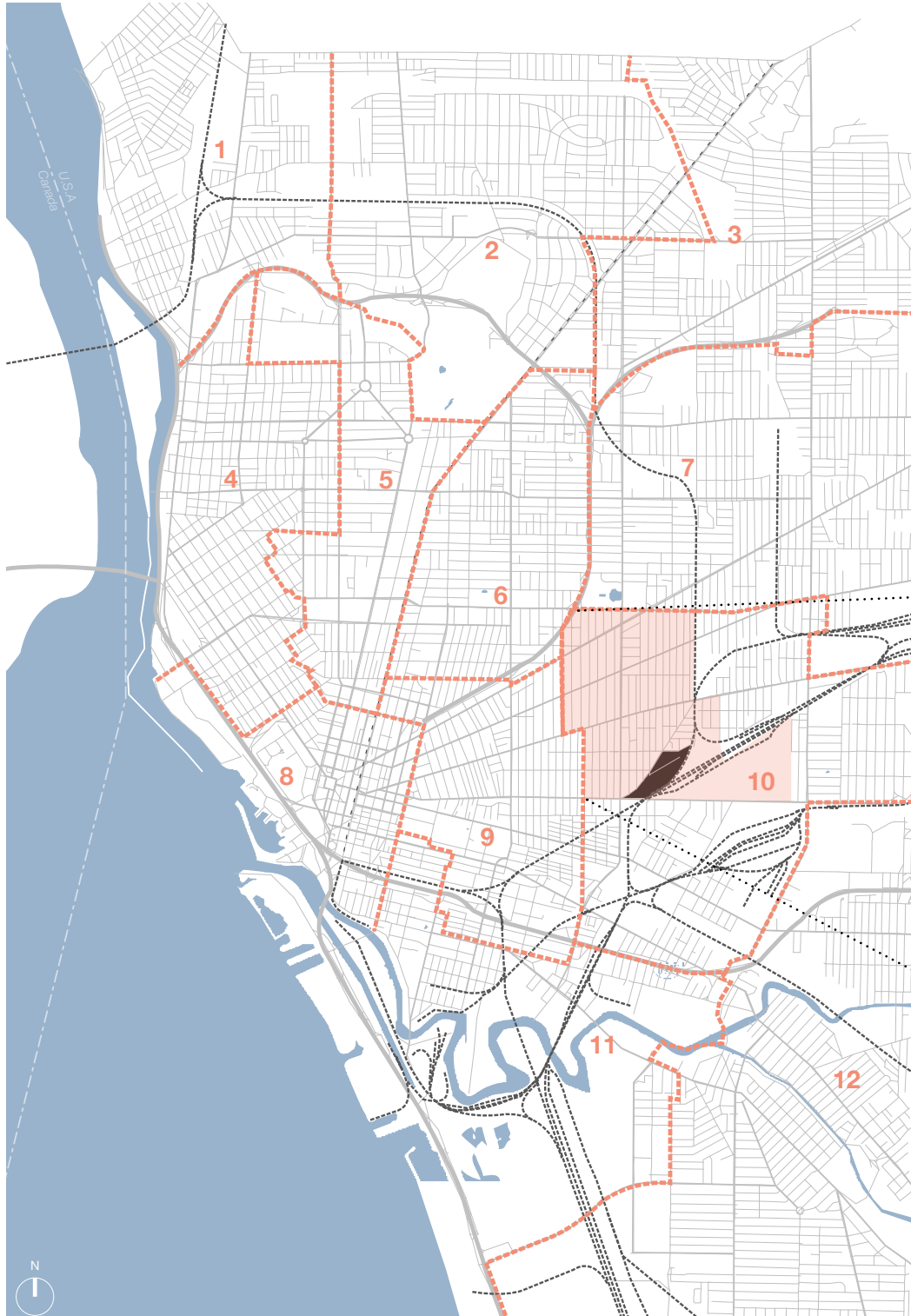
2.1 Image of vacant home in the Broadway & Fillmore neighbourhood

2.2 Image of vacant storefront on Broadway Avenue

2.3 Image of The New York Central Terminal Building (left)



# Buffalo Community Map



2.4 Buffalo Community Map

2.5 Broadway & Fillmore Map (right)

## Legend:

- Rail Lines
- Light Rail
- Expressway
- Artillery Roadway
- Roadway

- Community Boundary
- Study Neighbourhood: Broadway & Fillmore
- NYCT Site

## Communities:

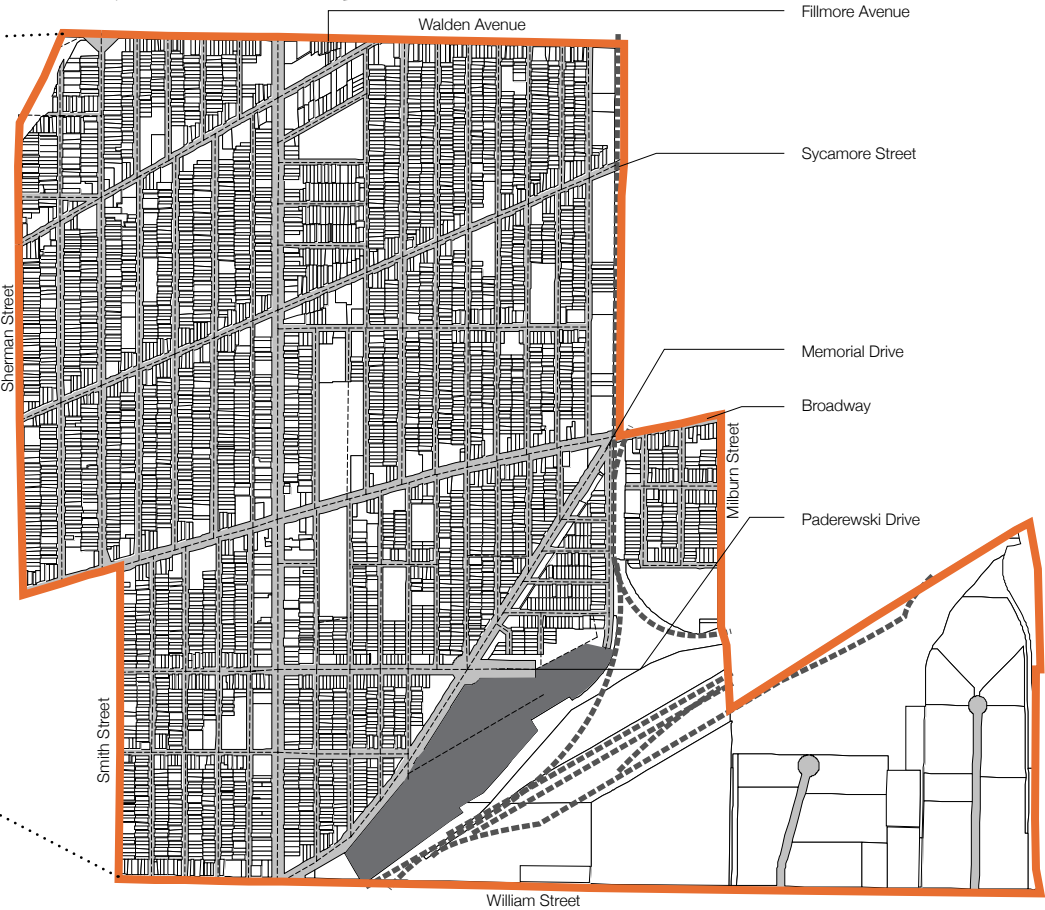
- |                 |                  |
|-----------------|------------------|
| 1 Riverside     | 7 East Delevan   |
| 2 North Buffalo | 8 Central        |
| 3 North East    | 9 Ellicott       |
| 4 West Side     | 10 East Side     |
| 5 Elmwood       | 11 Buffalo River |
| 6 Masten        | 12 South Buffalo |

# Buffalo Today: A Demographic Analysis

## Study Areas Base Maps

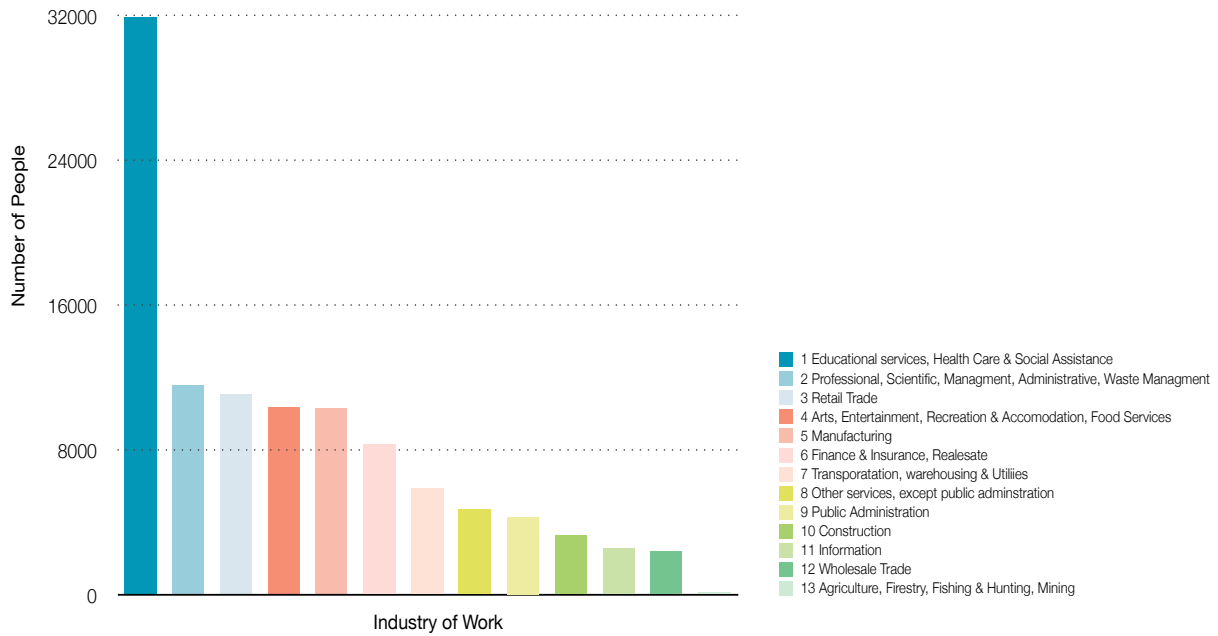
These maps are used as base maps to show the physical effects of the issues discussed within this chapter. The Buffalo Community Map shows every designated community within the city of Buffalo (Figure 2.4). The Broadway and Fillmore neighbourhood is located in Community 10 - East Buffalo (Figure 2.5).

### Broadway & Fillmore Map

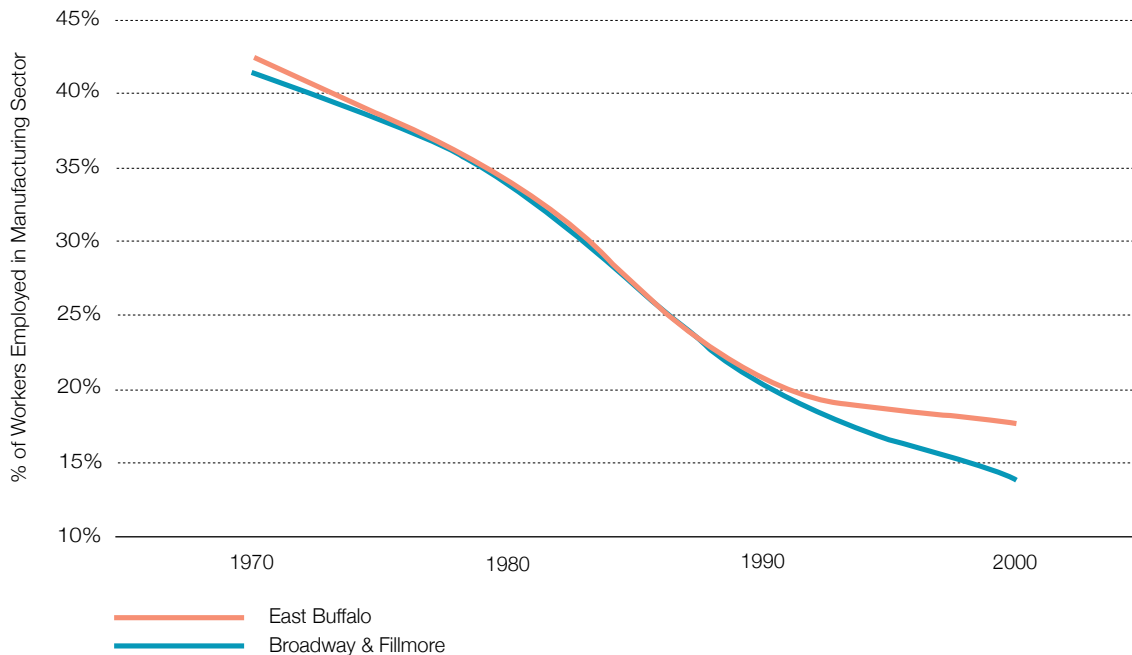


- Boundry Lines:**
- Block Boundary
  - ▭ Property Parcels
  - NYCT Site

### City of Buffalo: Number of people employed in each industry, 2006-2008



### Manufacturing Employment in Broadway & Fillmore vs. East Buffalo 1970-2000



# Buffalo Today: A Demographic Analysis

## Labour Force

Unemployment is not solely a problem of rust belt cities such as Buffalo. In recent years higher rates of unemployment have affected the entire nation. The nations unemployment rate in 2000 sat around 5%, Buffalo's unemployment rate was 12.5% and the neighbourhood of Broadway and Fillmore's was 19.8%, almost four times that of the national average<sup>4</sup>. The 2008 global recession also worsened the current national unemployment rates which are now closer to 9%<sup>5</sup>. Clearly the residents of Broadway and Fillmore struggle to find employment.

The manufacturing industry, once the largest employer in the city has fallen to fifth place (Figure 2.6). Education, Health Care and Social Assistance employs three times as many workers and is now the largest provider of employment.

Broadway and Fillmore's residents were once largely employed in the higher paying jobs of the manufacturing sector. Since the 1970s the neighbourhoods work force employed in manufacturing fell by almost half to 14% in the year 2000 (Figure 2.7). Now the area's largest industry of employment is also Education, Health Care and Social Assistance.

Broadway and Fillmore also reflects a city wide shift to employment in the suburbs. More then 30.7 %<sup>6</sup> of employed residents work in the suburbs. The shift to the suburbs has been seen in many other industrial cities. Detroit has seen a similar shift, as many of the it's jobs were relocated to the suburbs. The residents who could afford to move also relocated to the suburbs along with their jobs leaving an impoverished and de-populated downtown core.

4 GNPA, "East Buffalo Neighbors' Planning Alliance Neighborhood Plan" (Prepared as a Component of The Queen City in the 21st Century: Buffalo's Comprehensive Plan,2007). Sec 3, 17.

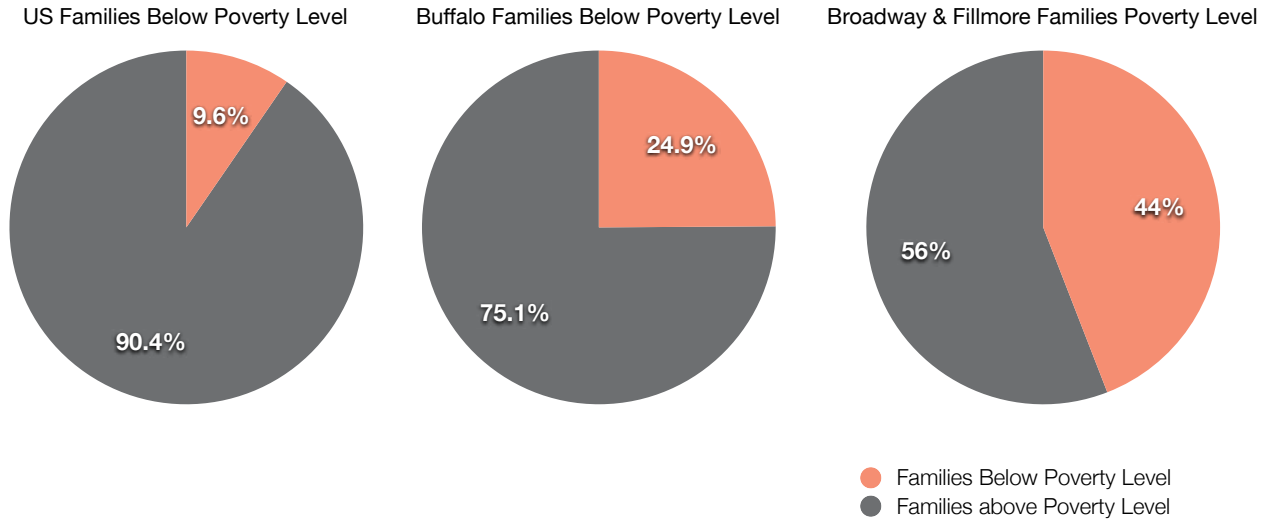
5 "Bureau of Labor Statistics: Labor Force Statistics from the Current Population Survey accessed April 8 2010 " <http://data.bls.gov/cgi-bin/surveymost>

6 GNPA, "East Buffalo Neighbors' Planning Alliance Neighborhood Plan" (Prepared as a Component of The Queen City in the 21st Century: Buffalo's Comprehensive Plan,2007). Sec 3, 17.

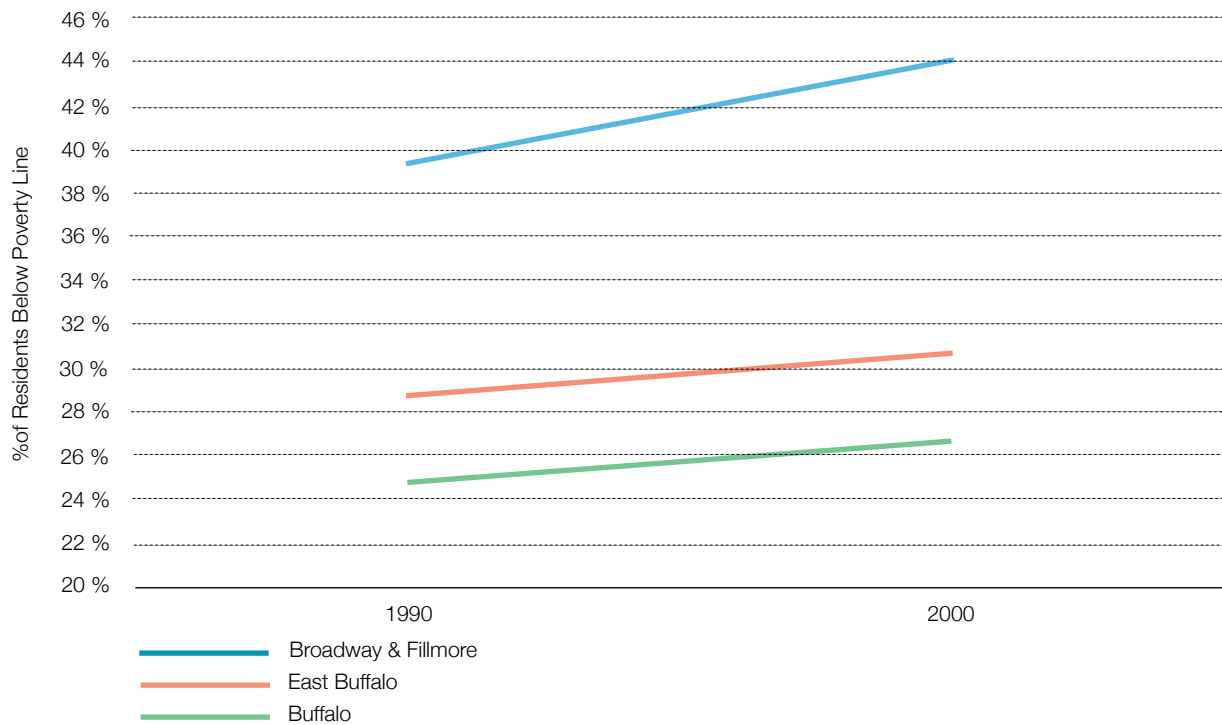
2.6 City of Buffalo: Number of people employed in each industry, 2006-2008. (left)

2.7 Manufacturing Employment in Broadway & Fillmore Buffalo 1970-2000 (left)

## Percentage of Families below the Poverty Level, 2000



## Poverty Rate in Broadway & Fillmore, 1990-2000





# Buffalo Today: A Demographic Analysis

## Income and Poverty

According to the 2006-2008 American Community Survey, approximately one quarter of Buffalo's families live below the poverty level, more than twice the national figure. The percentage increased where the sole household provider was a female, 43% of these families lived below the poverty level.<sup>7</sup>

Buffalo's poverty rate compared to the national rate, although high, is not nearly as high as Broadway and Fillmore's poverty rate, where more than 44% of residents live below the poverty level (Figure 2.8). In the 1990s the neighbourhood's poverty rate increased faster than in previous years and this condition is evident when median household incomes are compared (Figure 2.9). In 1999 the median household income in Broadway and Fillmore was \$13, 807 per annum compared with the city's median household income of \$24, 655 per annum. Households in the neighbourhood earned \$0.56 for every \$1 households in the city as a whole earned<sup>8</sup>.

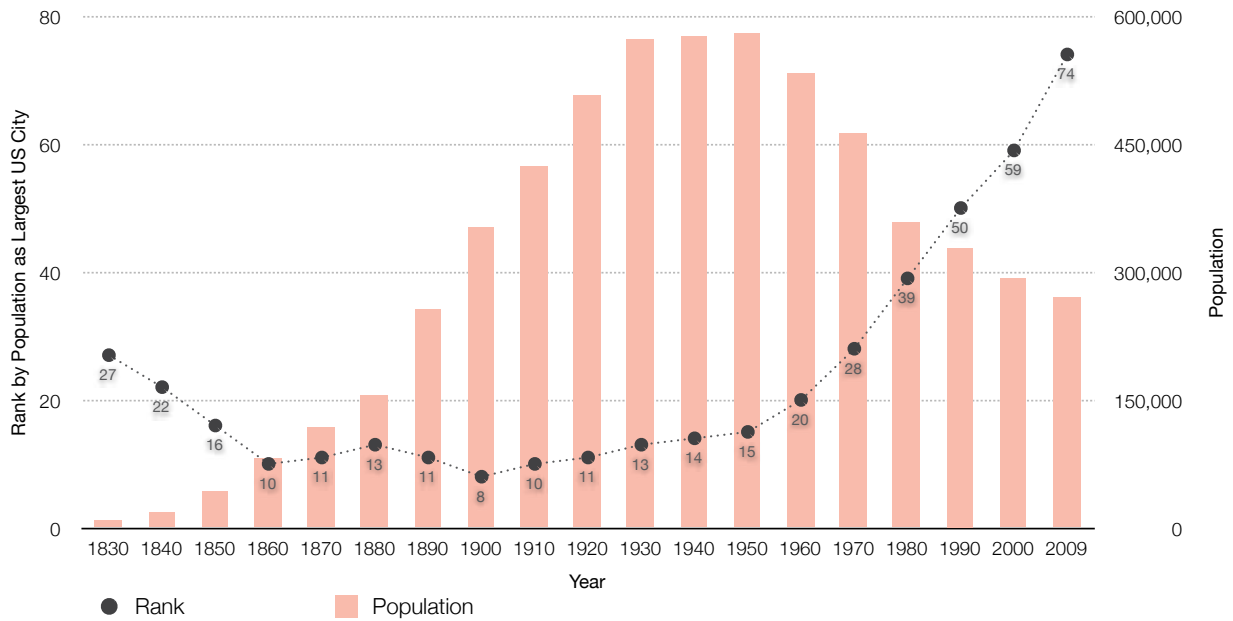
7 U.S. Census Bureau, "Buffalo city, New York: Population and Housing Narrative Profile 2006-2008", 2010.

8 GNPA, "East Buffalo Neighbors' Planning Alliance Neighborhood Plan" (Prepared as a Component of The Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2007). Sec 3, 16.

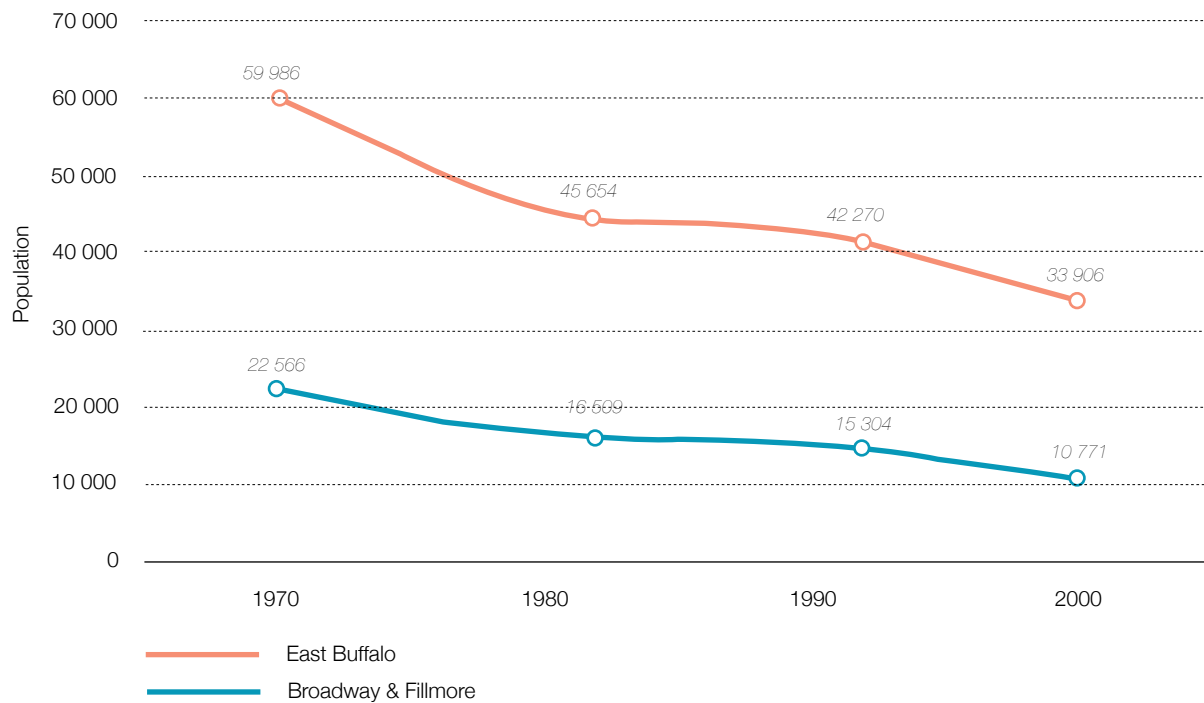
2.8 Percentage of Families below the Poverty Level , 2000, pie graphs. (left)

2.9 Poverty Rate in Broadway & Fillmore, 1990-2000 (left)

## City of Buffalo: Rank by Population vs. Population 1830-2009



## Broadway & Fillmore vs. East Buffalo Population 1970-2000



# Buffalo Today: A Demographic Analysis

## Population

The city of Buffalo was once a populous urban center. Since the city's creation in the early 1800s it grew in size steadily until the 1950s (Figure 2.10) . During this time Buffalo remained one of the nations most populous cities, remaining in the top 20 into the 1960s. Since the late 1960s, due to the strong forces of de-industrialization, de-centralization and suburbanization, Buffalo, along with many other rust belt cities such as Detroit and Pittsburgh, has suffered a significant population loss.

The East Buffalo community has been severely impacted by this loss. Residents once employed by local manufacturing industries have been forced to move to the city's suburbs where manufacturing jobs still exist. Since the 1970s the area has experienced a loss of one third of it's residents and this rate of loss increased during the 1990s and continues today<sup>9</sup>.

Broadway and Fillmore was the most populous neighbourhood in East Buffalo as of the year 2000. Between 1970 and 2000 the neighbourhood lost over 50% of it's population. A rate of population decline greater than both the East Buffalo Community and the City of Buffalo (Figure 2.11).

<sup>9</sup> GNPA, "East Buffalo Neighbors' Planning Alliance Neighborhood Plan" (Prepared as a Component of The Queen City in the 21st Century: Buffalo's Comprehensive Plan,2007). Sec 3, 7.

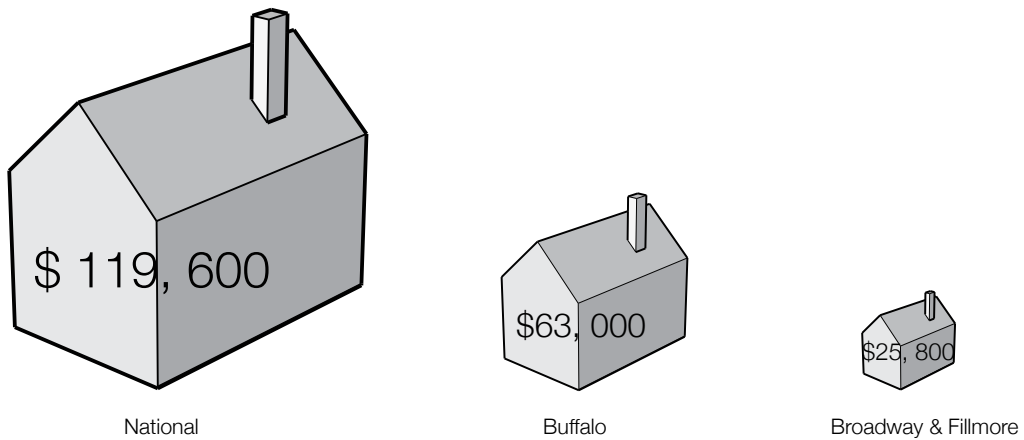
2.10 City of Buffalo: Rank  
by Population vs. Population  
1830-2009 (left)

2.11 Broadway & Fillmore  
vs. East Buffalo Population  
1970-2000 (left)

# Broadway & Fillmore Assessed Value for Residential Properties Map, 2004



# Median Housing Values, 2006-2008

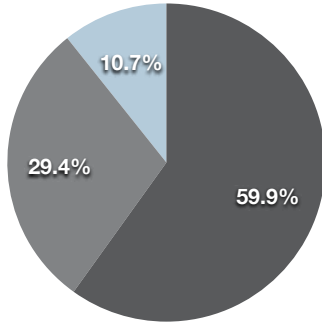


# Buffalo Today: A Demographic Analysis

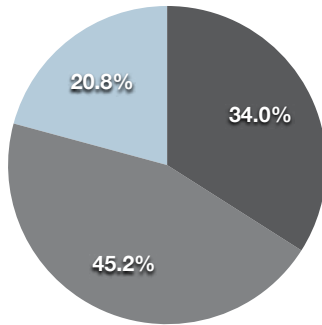
## Housing

### Occupied vs. Vacant Housing Units, 2006-2008

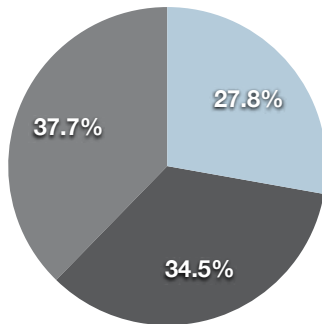
US Occupied vs. Vacant Housing Units



Buffalo Occupied vs. Vacant Housing Units



Broadway & Fillmore Occupied vs.  
Vacant Housing Units



- Owner-occupied housing units
- Renter-occupied housing units
- Vacant Housing Units

Building vacancy is a problem that is very apparent in the city of Buffalo. Many buildings and homes are vacant and in a state of disrepair, while many others have been demolished by the city. The vacant buildings are havens for crime. Vacant properties have been used as crack dens and hiding places for illegal guns or drugs<sup>10</sup>. Arson of these properties has also become large problem, hundreds of abandoned homes are burned each year, not only endangering residents but straining the Buffalo Police and Fire Departments. Vacant homes, arson and demolition have left a sparse and decaying urban fabric.

The percentage of vacant housing units in the Broadway and Fillmore neighbourhood is almost three times higher than the national figure (Figure 2.12). The high rate of vacancy has an adverse affect on housing prices within the neighbourhood (Figure 2.13). The lack of density and subsequent lack of community amenity, as well as the poor condition of existing houses, further lowered housing values. The national median average value for a house is \$119, 600 compared to a value of \$63,000 in the City of Buffalo<sup>11</sup>. Buffalo houses are valued at 52% lower than the national average. Houses in the Broadway and Fillmore neighbourhood have an even lower median value of \$25,800<sup>12</sup> which is among the lowest median values in the city (Figure 2.14).

10 Ken Belson, "Vacant Houses, Scourge of a Beaten-Down Buffalo," *New York Times*. September 13, 2007, accessed October 5th 2010, <http://www.nytimes.com/2007/09/13/nyregion/13vacant.html>

11 U.S. Census Bureau, "Buffalo, New York: American Community Survey 2006-2008", 2010.

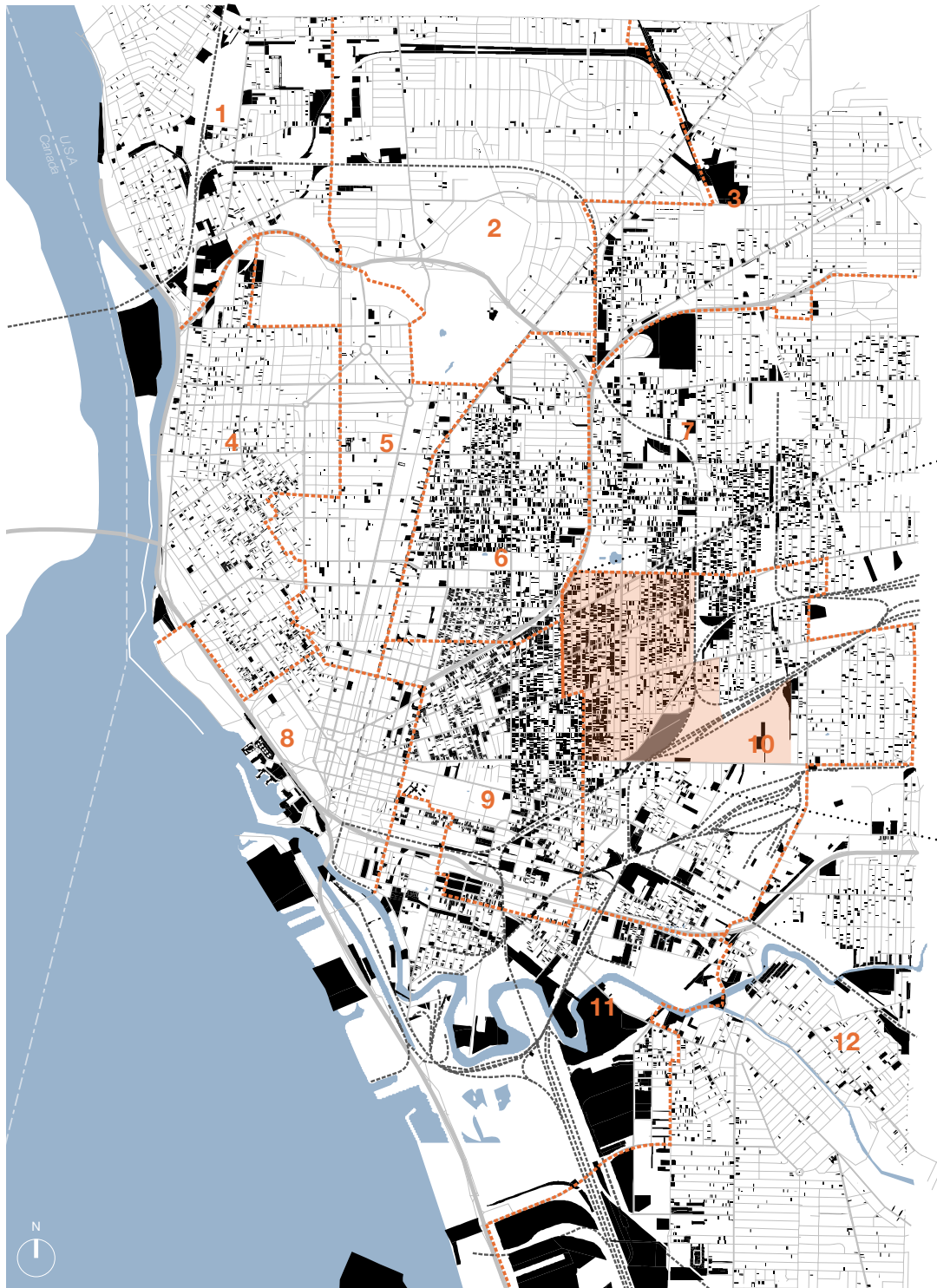
12 GNPA, "East Buffalo Neighbors' Planning Alliance Neighborhood Plan" (Prepared as a Component of The Queen City in the 21st Century: Buffalo's Comprehensive Plan,2007). Sec 3, 18.

2.12 Broadway & Fillmore  
Value for Residential  
Properties Map, 2004

2.13 Median Housing  
Values, 2006-2008

2.14 Occupied vs. Vacant  
Housing Units, 2006-2008

# City of Buffalo-Vacant Property Map, 2008



## Legend:

- Rail Lines
- Light Rail
- ==== Expressway
- ==== Artillery Roadway
- ==== Roadway

- Community Boundary
- Study Neighbourhood: Broadway & Fillmore
- █ Vacant Property
- █ Site

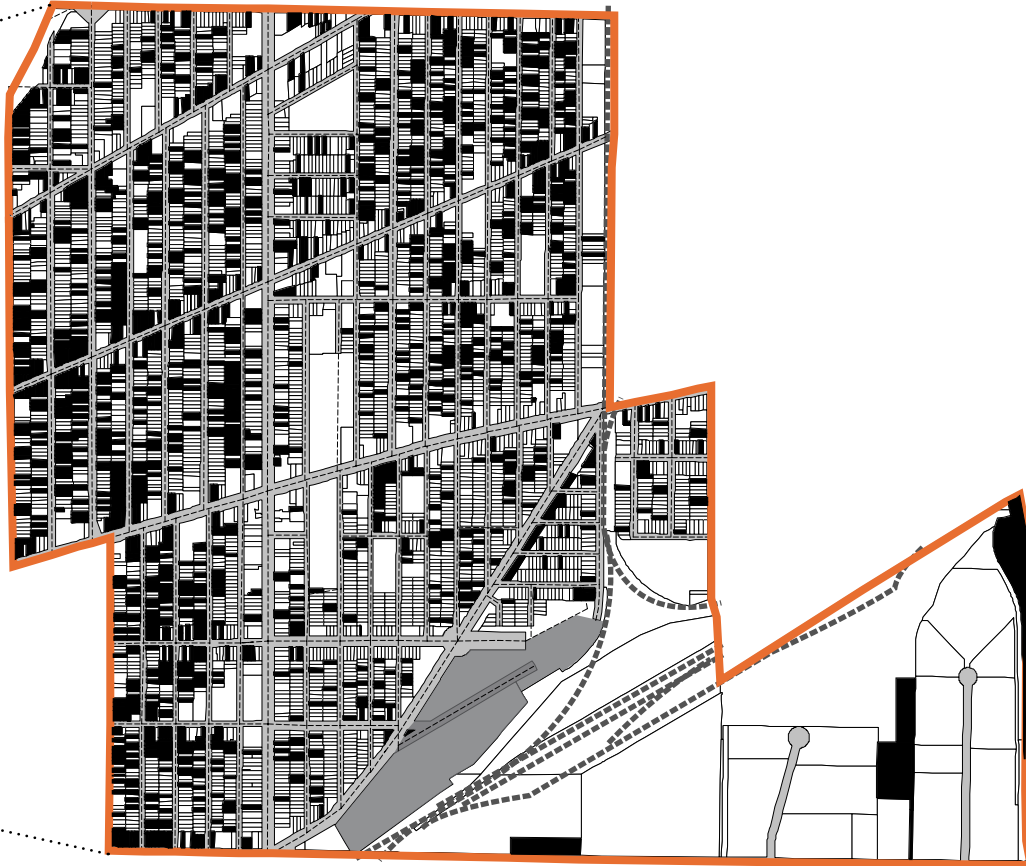
## Communities:

- |                 |                  |
|-----------------|------------------|
| 1 Riverside     | 7 East Delevan   |
| 2 North Buffalo | 8 Central        |
| 3 North East    | 9 Ellicott       |
| 4 West Side     | 10 East Side     |
| 5 Elmwood       | 11 Buffalo River |
| 6 Masten        | 12 South Buffalo |

# Buffalo Today: A Demographic Analysis

## Housing

### Broadway & Fillmore Vacant Property Map, 2005

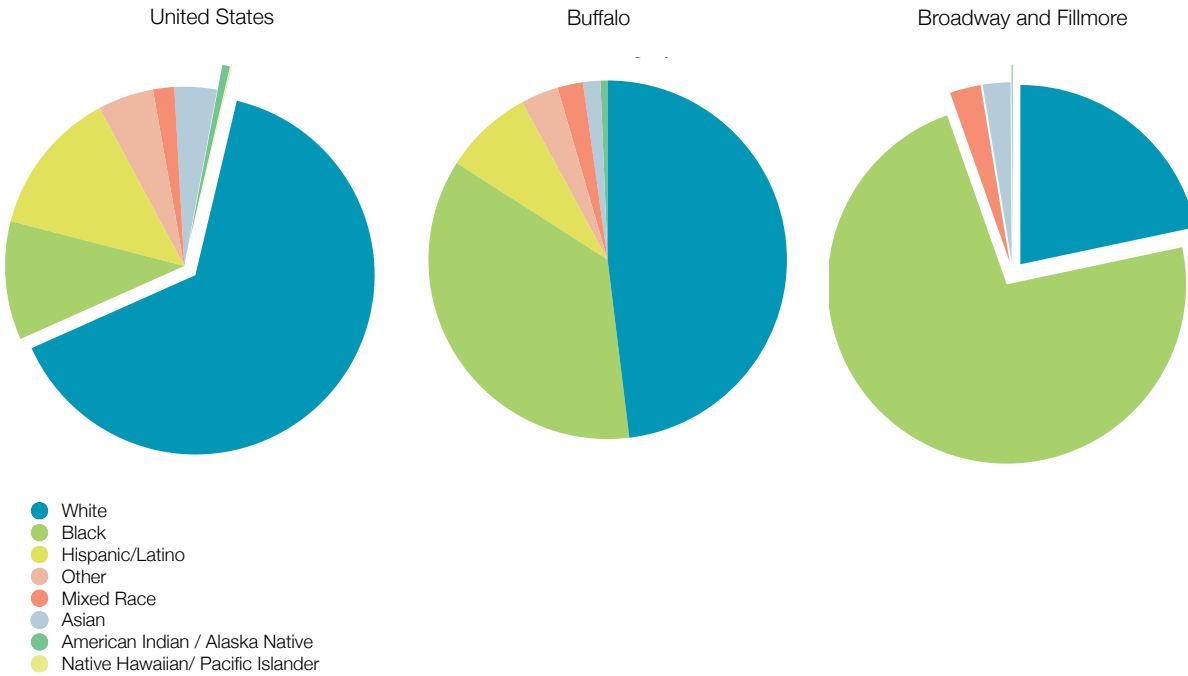


- Block Divisions
- Lot Divisions
- ▭ Neighbourhood Boundary
- Vacant Property
- NYCT Site

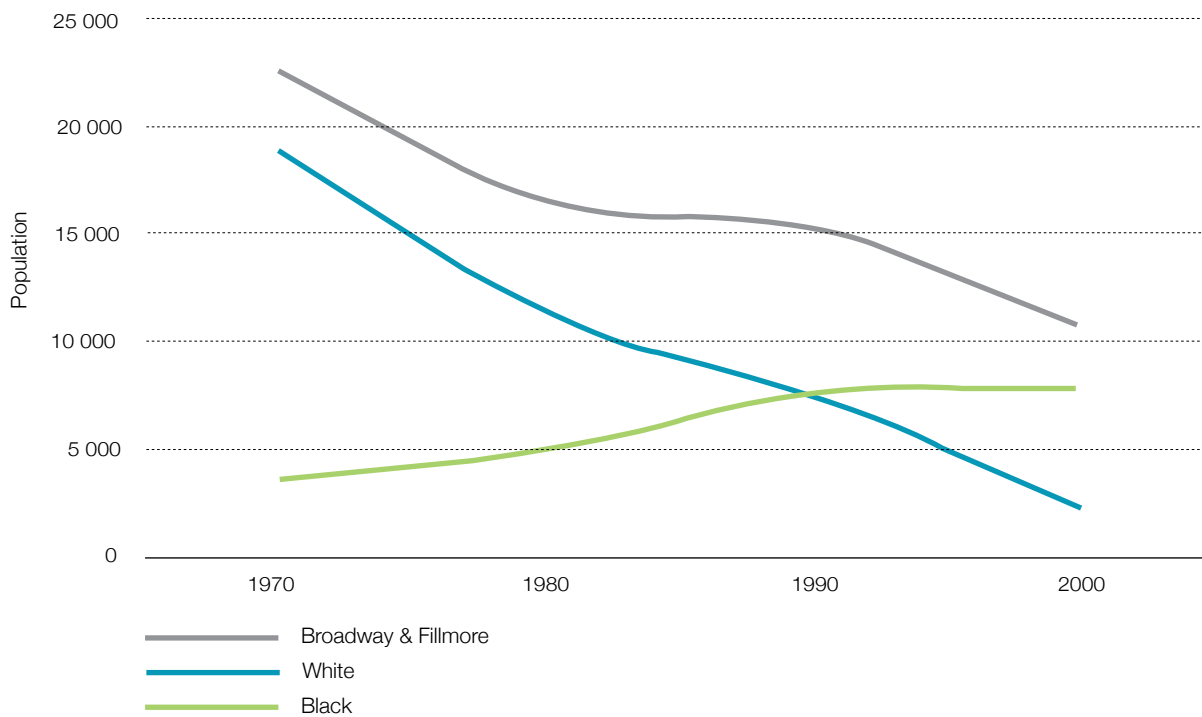
2.15 City of Buffalo Vacant  
Property Map, 2008 (left)

2.16 Occupied vs, Vacant  
Housing Units, 2006-2008  
(above)

## Racial Composition, 2006-2008



## Racial Composition of Broadway & Fillmore, 1970-2000





## **Buffalo Today: A Demographic Analysis**

### **Race and Ethnicity**

Broadway and Fillmore's racial composition is drastically different from that of the nation and city. The neighbourhood is now predominantly Black but this has not always been the case.

In 1970 the neighbourhood was 84% White and 16% Black. Many of the white residents, ancestors of Polish immigrants who settled the area in the generations before. These residents still have a strong cultural presence within the neighbourhood even though their numbers have dwindled. In the year 2000 the racial composition of black and white had shifted to 22% White and 73% Black. The decline and increase respectively occurred at a similar rate with populations equaling each other around 1990<sup>13</sup>.

The 1990s showed a diversification of race with an increase in the Asian and More Than One Race populations.

These trends make clear an alarming fact: the neighbourhood has become a ghetto for Black citizens of the city.

13 GNPA, "East Buffalo Neighbors' Planning Alliance Neighborhood Plan" (Prepared as a Component of The Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2007). Sec 3, 14.

2.17 Racial  
Composition, 2006-2008,  
Pie Graphs (left)

2.18 Racial Composition  
of Broadway & Fillmore,  
1970-2000, graph (left)



# Buffalo Today: A Demographic Analysis

## Concluding Observations



The demographic analysis makes clear Broadway and Fillmore's challenges. The terminal site, once a symbol of the success of this area, is now a looming reminder of its problems (Figure 2.19).

The proposed staged design strategy (Chapter 4) and building design (Chapter 5) aim to address the problems. Jobs will be created by introducing new green industries including urban agriculture and green deconstruction. These jobs will not only focus on providing the unemployed with work but will help re-train residents with new skills.

The problem of vacant housing will be combated by deconstructing vacant homes and consolidating residents in dense residential pockets. This will not only help to improve housing values by creating more desirable neighbourhoods but will help to fight problems of arson and crime which are facilitated by vacant buildings.

Population loss is a difficult problem to address directly. More jobs and better housing will help to stabilize the population and draw some population back. Improving and connecting the already great community and cultural buildings and amenities within the city will also help. The staged design proposal focuses on improving the connection between the cities parks and creating a strong interrelated cultural network within the city.

Diverse problems such as unemployment, poverty, population loss, vacant housing and racial divides cannot be solved solely by building design. However a holistic approach which looks at the urban, neighbourhood and building scales, integrating each into a large staged plan, while placing the design for the Terminal at its center, can help to answer many of these problems over time.



2.19 Image of a typical home in the Broadway & Fillmore Neighbourhood with the terminal looming behind (left)

2.20 A home in the neighbourhood with a City of Buffalo demolition notice

2.21 A boarded up store front, with spray painting indicating the state of the building



## **Design Techniques & Intentions**

The following section outlines design techniques and theories which have informed the Thesis. The projects discussed share common themes of:

**Process Driven Design**

**Abandonment & Decay as a Productive Force**

**Re-purposed Ground as a Productive Landscape**

**Past Form, Informing Present Function and Composition**

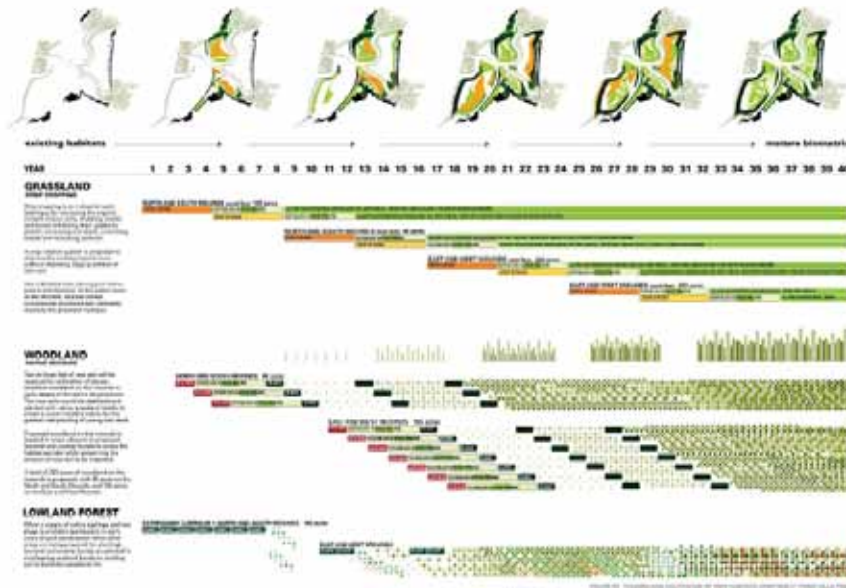
**The Modern Ruin**

**The Tension Between Preservation and Development, Striking a Balance**

These techniques act as a design framework, and are applied in Sections 4 and 5 to develop a design solution for the City of Buffalo and the New York Central Terminal. However, they could be applied to the redesign of many other post-industrial cities faced with similar problems of shrinking populations and decaying urban cores. The Thesis design uses insights gained from the investigation of these projects to help develop a distinct urban strategy for Buffalo, as well as creating a re-envisioned role for the New York Central Terminal to play within the city.



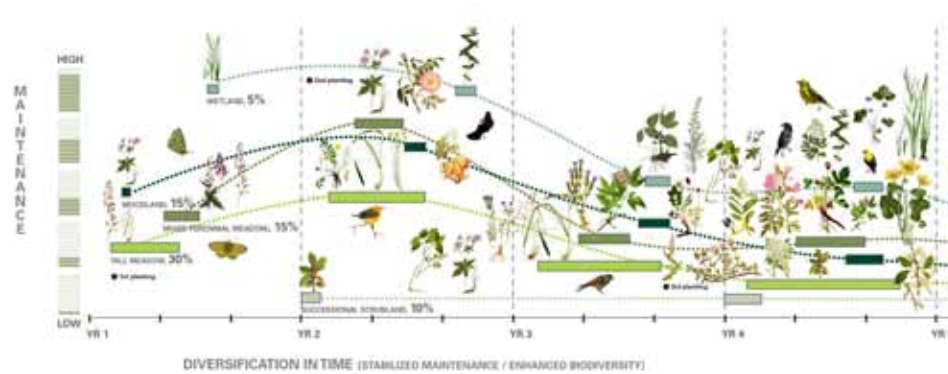
CULTIVATING NEW HABITATS OVERTIME



3.1 Diagram depicting the development of landscapes and habitats on the Fresh Kills Site, Staten Island, 2004

3.2 Diagram depicting the evolution of plant and animal life on The High Line, New York City, 2004

3.3 Aerial photograph of the High Line at dusk by Iwan Baan



## Design Techniques & Intentions

### Process Driven Design

The Thesis presents both a 25 year strategy for the re-envisioning of the Terminal and Buffalo and also outlines the complex programmatic relationships and networks which exist between the two. These design concepts are both based within the field of Landscape Urbanism. The Thesis utilizes landscape urbanist, James Corner's theories outlined in his essay 'Terra Fluxus', which enable the design to,

*"...view the entire metropolis as a living arena of processes and exchanges over time, allowing for new forces and relationships to prepare the ground for new activities and patterns of occupancy."*<sup>1</sup>

The staged design strategy focuses on a long term design that develops over time, through creating and strengthening urban networks and relationships, rather than focusing on single and separate plans for the city and Terminal. The emphasis on relationships and inter-connectivity are very important to the success of the design. Re-envisioning the terminal as a multi-programme hub with strong connections to the city's urban networks allow it to function within an *"...ecology of various systems and elements that set in motion a diverse network of interaction."*<sup>2</sup>

Corner has designed many projects with his firm, Field Operations, that focus on process driven design. The firm's proposal for 'Fresh Kills,' a landfill slated to become a park, outlined a slowly yet naturally evolving plan for the site (Figure 3.1). Similarly, Field Operation's winning competition entry for The High Line in New York City used this process driven dynamic approach to re-envision unused infrastructure as an urban park. The design not only recognized that the parks plant life and animal species would evolve overtime, but that the park's programmatic uses and activities would also follow this natural evolution (Figure 3.2-3.3).

The Thesis design, like the previous projects, presents a long term evolving strategy for the city, rather than a finalized master plan. Understanding that the city and it's infrastructures should be viewed as dynamic entities that change overtime, ensuring a durable solution for the City of Buffalo.

<sup>1</sup> James Corner, "Terra Fluxus," in *The Landscape Urbanism Reader*, ed. Charles Waldheim (New York: Princeton Architectural Press, 2006), 30.

<sup>2</sup> *Ibid.*, 31.



3.4 Image of  
'Splitting' by Gordon  
Matta-Clark, 1974

3.5 Image of  
'Ecologies of Decay' by  
Dennis Maher a 2009  
installation at Artspace,  
Buffalo.





## Design Techniques & Intentions

### Abandonment & Decay as a Productive Force

Traditionally abandonment and decay of the built environment has been seen as a negative force within the urban realm. These issues having been dealt with through preservation or demolition to make way for development. However, within the art world there has been a strong tradition of viewing abandonment and decay as a productive force. Artists interested in the role of architecture have seized on the opportunities that abandoned buildings present. Artists like Gordon Matta-Clark and Dennis Maher use empty buildings as a source of material for their artworks, drawing attention to issues surrounding the causes of urban blight (Figure 3.4 & 3.5). The City of Buffalo, like many post-industrial cities, has experienced an urban exodus which has left the city overrun with vacant buildings in a state of decay. Not only are these buildings visually unappealing, they also contribute to crime, lowered housing values and can make neighbourhoods undesirable for current and future residents.

The Thesis looks to the ideas proposed by artists to use abandoned buildings as sources of material - de-constructing rather than demolishing them; an approach that has multiple benefits. First, the strategic de-construction of these buildings creates safer neighbourhoods. Secondly, a vacant building costs the City of Buffalo more money in lost property taxes, than it would cost to demolish it<sup>3</sup>. Thirdly, de-construction seizes on the fact that these buildings are a valuable source of material, it allows for the material to be salvaged and re-used, creating a new industry of salvage for the city. Finally, the strategic removal of these buildings clears large tracts of land, which can be used for purposes, other than new development which the city can not currently support. A similar technique of strategic erasure is outlined in 'Decamping Detroit', Charles Waldheim and Mari Santos-Munné's proposal for dealing with the problem of abandonment in the city of Detroit. The projects first stage, dislocation and second stage, erasure propose similar ideas to that of the Thesis recognizing a benefit to creating large landscapes with productive uses and smaller areas of density, rather than a piecemeal development approach<sup>4</sup>.

<sup>3</sup> Ken Belson, "Vacant Houses, Scourge of a Beaton-Down Buffalo," *The New York Times*, September 13, 2007, <http://www.nytimes.com/2007/09/13/13vacant.html>

<sup>4</sup> Charles Waldheim and Mari Santos-Munné, "Decamping Detroit" in *Stalking Detroit* ed. Georgja Dasklakis et. al., (Barcelona: ACTAR, 2001), 112.



3.6 Aerial photograph of Detroit showing blackened areas which indicate vacant lots, 1990.

3.7 A potential use for vacant land as Suburban Campground of garden annex proposed in the 'Decamping Detroit' project.

3.8 Image of the Earthworks Farm, Detroit, 2010.

**Zone 1 Suburban Campground / Garden Annex**



## Design Techniques & Intentions

### Re-purposed Land as Productive Landscape

Vacant or empty land has typically been seen as an opportunity for building development in the city. In contrast, the Thesis proposes the re-purposing of vacant property and land created by the de-construction process in the Staged Design Strategy.

The 'Decamping Detroit' project, which investigates similar issues of land vacancy in Detroit, proposes techniques of absorption and infiltration to program the vacant land (Figure 3.6). Absorption enables natural processes, such as flooding or forest growth, to be stimulated in vacant landscapes. Infiltration is speculative and focuses on the potential future use and growth in the de-commissioned landscapes (Figure 3.7).<sup>5</sup>

The strategy for re-purposing the empty land created through the de-construction process in the Thesis is similar to that of absorption and infiltration. It outlines a strategic de-construction process, in which the new empty land will function within the larger networks of the city. The empty land will either be used as parkland or agricultural land, both designed as productive landscapes. The land is either physically productive, with agricultural land yielding crops and supporting a new urban agriculture industry, or culturally productive, with parkland providing space for community gardens, artistic installations and outdoor activities. The configuration of these tracts of land are based upon the existing property lines and city grid. Using these divisions as a means of informing the composition of the design ensures that future building and development can easily take place when the city has the means and population to support it.

In Detroit, urban agriculture has been embraced as a means of re-purposing the city's many empty lots (Figure 3.8). It has sparked a renaissance, both providing food security and producing new community networks. Like the urban farms of Detroit, the re-purposed land of Buffalo can only thrive as part of a larger network. Productive landscapes facilitate a variety of activity and draw the interest of citizens. They can act as a driving force to revive cities that cannot support a dense architectural environment in the same way.

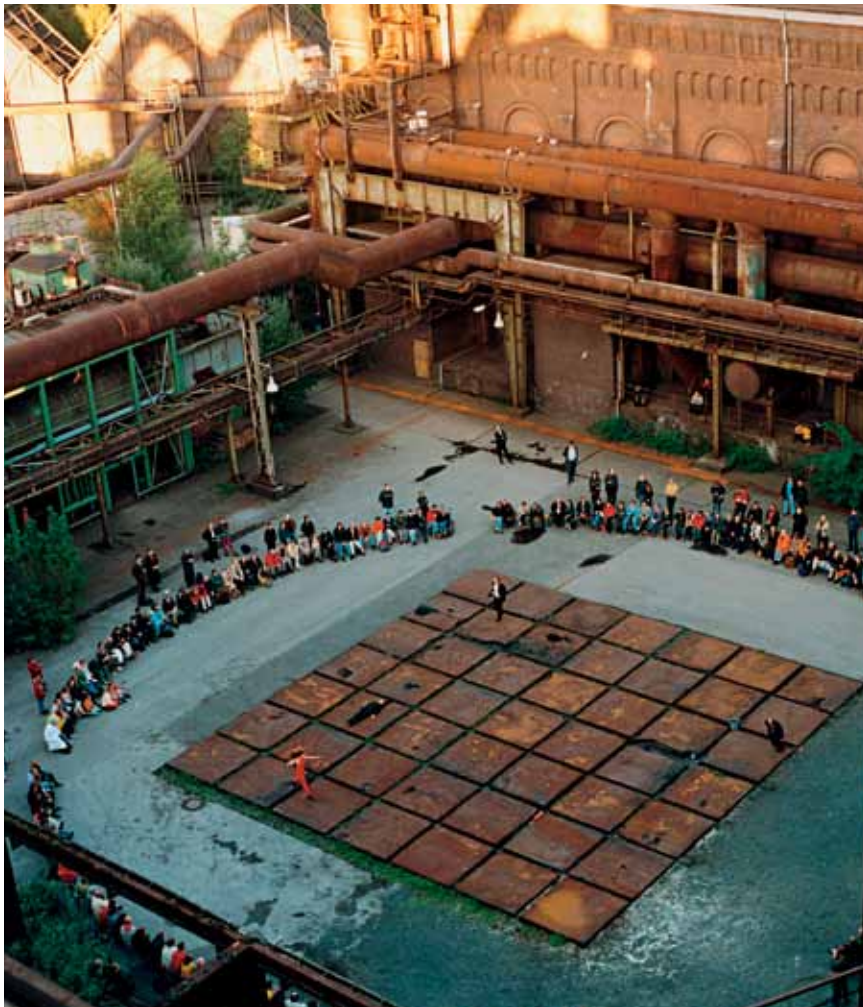
<sup>5</sup> Charles Waldheim and Mari Santos-Munné, "Decamping Detroit" in *Stalking Detroit* ed. Georgja Dasklakis et.al., (Barcelona: ACTAR, 2001), 114.





3.9 Image of a performance in the Emscher Landschaft Park's Blast Furnace Park.

3.10 Aerial photograph of The Santa Croce area of Florence.



## Design Techniques & Intentions

### Past Form, Informing Present Function and Composition

The Terminal building and site no longer function as a transportation hub; however, many of the buildings inherent qualities have been used to inform the new functions of the design. Aldo Rossi notes that, “...urban artifacts,..like the city itself are characterized by their own history and thus by their own form.”<sup>6</sup> Rossi notes that traces of past form are evident even within the plan of the city. Studying a plan of the Santa Croce neighbourhood in Florence reveals traces of a Roman amphitheater, its oval form evident in the city’s grid (Figure 3.9).

The importance that past form plays in the current function of the design for an urban artifact is clearly seen in Peter Latz + Partner’s ‘Emscher Landschaft Park’. The park is located on the site of a former steel production facility; its programmatic functions relate to the remaining industrial forms on the site.<sup>7</sup> The large blast furnaces were re-purposed as a performance space, taking advantage of the large enclosed space, ideal for housing large groups (Figure 3.10). The waste water canals were re-purposed as water features and natural marshland to support animal life.

The architectural forms of the Terminal have qualities which lend them to a variety of new programmatic functions. The train platforms and passenger concourse function as a market, utilizing the existing connection between indoor and outdoor space to create an all season market with access to garden plots, as well as taking advantage of the connection to a larger rail network for the importing and exporting of food. The existing tower structure, previously used as office space, has a circulatory core and open floor plate, lending the space to be re-purposed for residential use. The Terminal’s existing street car turn-around facilities provide an opportunity to directly connect with a new light rail line. Using the inherent qualities and forms of the Terminal to help inform the design, ensures that the existing building is not merely a vessel housing new programmes, but plays an integral role in the its new function as a urban hub for Buffalo.

<sup>6</sup> Aldo Rossi, *The Architecture of the City* (Cambridge, MA: The MIT Press, 1984), 29.

<sup>7</sup> Udo Weilacher, *Syntax of Landscape; The Landscape Architecture of Peter Latz and Partners* (Basel: Birkhauser, 2008), 112.





3.11 The painting 'A Bird's-Eye View of the Bank of England' by Joseph Gandy, 1830.

3.12 Image of 'Ice House Detroit' by Gregory Holm & Matthew Randune, 2009-2010.

3.13 Image of the Bunker Garden at the Emscher Landschaft Park, Peter Latz + Partners.



## Design Techniques & Intentions

### The Modern Ruin

The role of the ruin within the Thesis is one of evocation. Architects and artists throughout history have recognized the powerful force of ruins and their ability to act as a physical reminder of the life cycle. The author Christopher Woodward elaborates on the role of ruins in his own words,

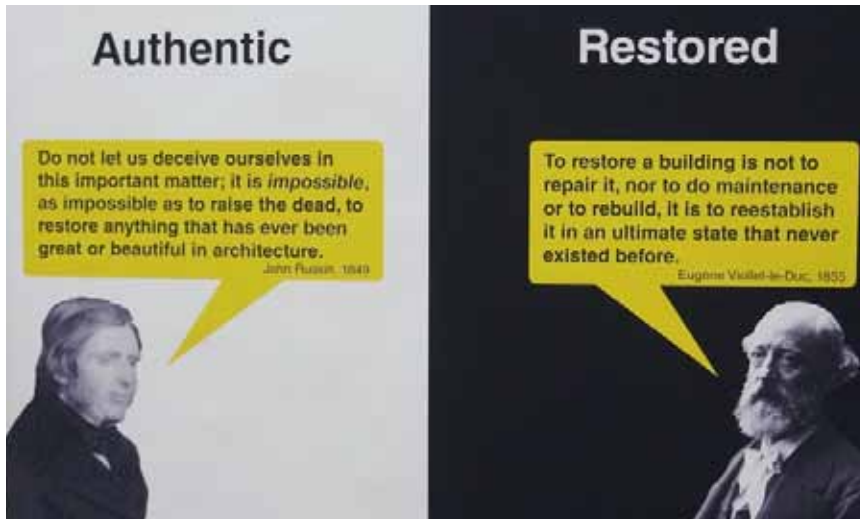
*“When we contemplate ruins, we contemplate our own future. To statesmen, ruins predict the fall of Empires, and to philosophers the futility of mortal man’s aspirations. To a poet, the decay of a monument represents the dissolution of the individual ego in the flow of Time; to a painter or architect, the fragments of a stupendous antiquity call into question the purpose of their art.”<sup>8</sup>*

The artist Joseph Gandy exemplified this fascination with ruin through his depiction of his friend, John Soane’s, newly built architectural projects. For example, the Bank of England in ruins before its time (Figure 3.11).

Projects such as, ‘Ice House Detroit’, ‘The Hedmark County Museum’ and ‘Emscher Landschaft Park’, all seek to amplify the ruin in some way, drawing attention to the fragility of the built world by displaying its decay. These projects juxtapose the power of natural forces against architecture, emphasizing its vulnerability. An abandoned house is frozen (Figure 3.12), a ruin is exposed to the elements to further decay and landscape is cultivated within the walls of a concrete bunker. (Figure 3.13) In each design, the building’s life cycle is shown through its accelerated decay.

The Thesis design proposes that parts of the Terminal building remain only as shells, acting as amplified ruins. Enclosed areas of the building are carved away, exposing them to elements, enabling the cultivation of new landscapes within them. These spaces evoke the fragility of a seemingly stable urban artifact. In the same way, yet at a larger scale, traces of the city’s past are evident in the parkland design, foundations and walkways from demolished homes act as garden plots and new modes of circulation, a reminder of the area’s residential past. The ruin plays a subtle yet important role within the Thesis, ensuring that Buffalo’s past struggles will not be forgotten in the future.

<sup>8</sup> Christopher Woodward, *In Ruins* (New York: Pantheon Books, 2001), 2.



3.14 Image from OMA's 2010 exhibit 'Cronocoas' showing contradicting views on Preservation.

3.15 Image from OMA's 2010 exhibit 'Cronocoas' showing the system demolition of Paris revealing of a tabula rasa beneath the city.

3.16 Image of the 'Caxia Forum' by Herzog and de Meuron.

3.17 Image of a carved away space for the display of an equestrian statue at 'Castlevecchio'.

3.18 Image of an existing doorway at 'Castlevecchio' which has been closed off by the addition of a protruding room.





## Design Techniques & Intentions

### The Tension Between Preservation and Development, Striking a Balance

There are two diametrically opposing motivations on the subject of historic architecture and its role in shaping the city (Figure 3.14). The motivation to preserve; maintaining and restoring architecture, thus creating a direct physical link to a city's past and, the motivation to develop; feeding an ambition of growth and change to propel the city into the future. As the City of Buffalo continues to shrink, the tension between the need to preserve its great architecture, a reminder of its ambitious past, and the need to develop in order to stimulate growth and change in the face of decay are evident. OMA's 2010 Venice Biennale exhibit, 'Cronocoas' presents an answer to the problem created between the two motivations, a theory in which:

*"...not what to keep, but what to give up, what to erase and abandon. A system of demolition for instance, would drop the unconvincing pretense of permanence for contemporary architecture built under different economic material assumptions. It would reveal a tabula rasa beneath the thinning crust of our civilization ready for liberation just as we (in the West) had given up on the idea."*<sup>9</sup>(Figure 3.15)

A systematic demolition process is used in the Thesis to address Buffalo's problem of urban blight. The system is strategic, recognizing the need to create density rather than to create growth. Emphasizing the importance of the urban network to become a framework upon which density builds, and pockets of productive landscapes can develop between. Strategic demolition can also be applied at a smaller architectural scale in order to change a building's relationship to its surroundings. As in Herzog and De Meuron's, 'Caxia Forum' the carving away of the bottom floors of the building not only creates a new mode of entry to the building, it changes the buildings relationship with the street. Furthermore, the removal of a neighbouring gas station allowed for the creation of public plaza on the main thoroughfare (Figure 3.16). A similar technique of carving away and demolishing key elements of a building to reveal new spaces, was used in Carlo Scarpa's 'Castlevecchio',

creating spaces which are neither building nor landscape. Creating new paths of circulation and new ways to experience the building itself (Figure 3.17). The projects also make additions to the existing buildings, whether it is placing a two storey addition atop the existing structure in the case of the 'Caxia Forum' or delicately weaves new layers of materials, rooms and pathways into the existing space, as in 'Castlevecchio' (Figure 3.18). Both projects contrast old and new, manipulating the existing building in order for it to successfully function within a new context and with a new use.

The tension between preservation and development highlights a critical problem the City of Buffalo faces: how to preserve the city's ambitious history while allowing the city to evolve and grow? This problematic situation is viewed in the Thesis as an opportunity to apply a new theory of urban and architectural design that straddles the line between preservation and development, unafraid to use demolition as a tool of design.

9 OMA "Venice Biennale 2010: Cronocoas, Italy, Venice, 2010" [http://www.oma.eu/index.php?option=com\\_projects&view=project&id=1260&Itemid=10](http://www.oma.eu/index.php?option=com_projects&view=project&id=1260&Itemid=10)



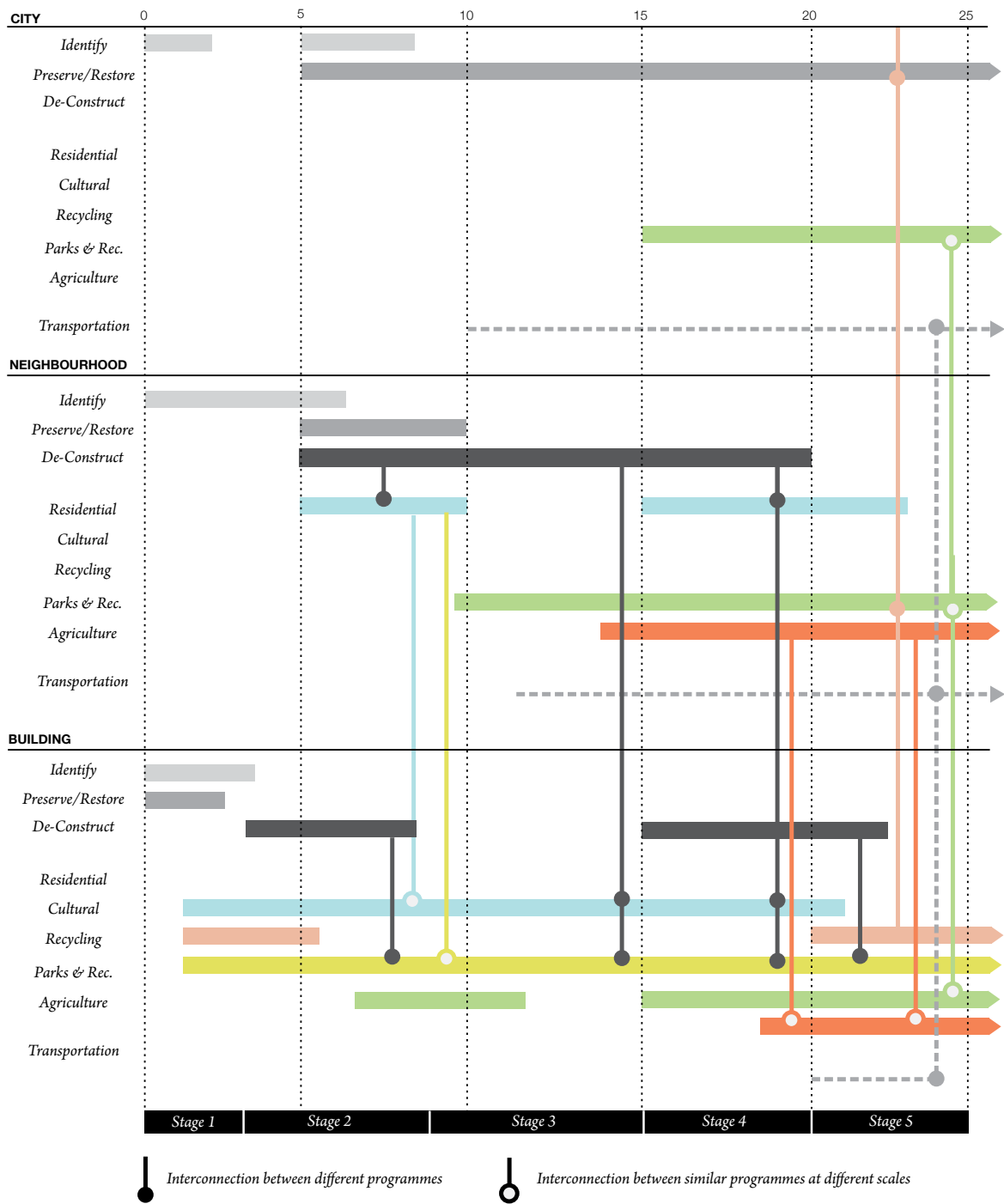
## Staged Design Strategy: A 25-Year Plan

The following 25-year staged strategy outlines the development of a new vision for Buffalo, The Broadway and Fillmore Neighbourhood and The New York Central Terminal. Rather than focusing on traditional methods of regeneration, which use development and building as a means for change, this strategy focuses on targeting specific neighbourhoods and their urban artifacts for improvement.

Neighbourhoods will be densified along critical transportation routes and stronger connections will be created between urban artifacts. In juxtaposition to this densification, areas with a large percentage of vacant land and vacant buildings will be identified for deconstruction. This deconstruction will help to generate a new specialized industry of deconstruction, recycling and salvage. It will also help to create large tracts of open land which will either be integrated with the existing park system or become urban farmland. Densification in some areas and deconstruction in others, will create successful dense areas across the city. In order for these areas and the cultural buildings within them to function as a larger whole, the creation of a strong network which connects them is important. Not only will new light rail and bike paths physically connect these areas, but green connections will also be created by improving and extending the City's parkways. The existing commercial corridors will be strengthened and densified. Thus creating a strong framework of dense areas with direct connection to one another.

In short, this strategy allows for the City to shrink intelligently while creating an urban network in which neighbourhoods can grow over time and buildings of cultural importance, such as the Terminal can act as hubs stimulating regrowth.

# Staged Design: Programme Timeline



4.1 Staged Design: Programme Timeline

# Staged Design Strategy: A 25 Year Plan

## The Five Stages

### Stage 1:

#### Resources (0-3 years)

The first stage of this strategy identifies and studies: existing urban artifacts, cultural buildings, commercial and transportation networks and parks and green connections. Through this research, areas of focus are identified and general design strategy is outlined.

#### Players & Roles:

*Professionals:* **Architect/Planner**

*Role:* Act as a liaison between all players involved. To create overall vision and design for the strategic plan. To identify existing resources that can be utilized to make the plan a success.

*Political:* **City**

*Role:* To provide funding and support to the project. To act as a liaison to higher levels of government state and federal, and to identify programmes at these levels which could provide funding.

*Community:* **Neighbourhood Residents, Community Groups & Organizations, Local Businesses**

*Role:* Outline needs and wants for the plan so they may be incorporated and developed in the later stages. Raise money through community initiatives.

*Corporate:* **Private Businesses**

*Role:* Creation of private business to oversee day to day management of site.

#### Milestones:

- Identify existing resources
- Create a detailed assessment and inventory of buildings within study neighbourhood
- Prepare site for construction
- Get funding for Stage 2
- Meet with all players at the beginning of the stage for feedback
- Meet with all players at the end of the stage to get feedback and outline goals and timeline of next stage

### Stage 2:

#### Deconstruct and Preserve (3-8 years)

Stage 2 focuses on specific problems of vacancy and abandonment within the city, creating a detailed assessment of this problem. At the same time it targets specific buildings for deconstruction and others for preservation.

#### Players & Roles:

*Professionals:* **Architect/Planner, Engineers, Contractors**

*Role:* Act on plans of stage one. Begin deconstruction process. Continue with construction of study building.

*Political:* **City, State, Federal**

*Role:* Implement necessary re-zoning. Register buildings and areas as sites of historic importance. Provide funding. Facilitate relocation of displaced community members.

*Community:* **Neighbourhood Residents, Community Groups & Organizations, Local Businesses**

*Role:* Educate and train community members in the deconstruction process.

*Corporate:* **Private Businesses**

*Role:* Management of site: on-site businesses, employees, leased areas and revenue. Liaison with business organizations involved with the site.

#### Milestones:

- Complete first phase of deconstruction
- Identify new programme to be implemented in the neighbourhood.
- Start construction process on site and introduce new programme
- Get funding for Stage 3
- Meet with all players at the beginning of the stage for feedback
- Meet with all players at the end of the stage to get feedback and outline goals and timeline of next stage

# Staged Design Strategy: A 25 Year Plan

## Stage 3:

### Connect and Improve (8-15 years)

Areas of deconstruction are converted to new park and homestead programme. Important connective, commercial and green corridors are identified and improved.

#### Players & Roles:

*Professionals:* Architect/Planner, Engineers, Contractors

*Role:* Design/ build public park. Continue deconstruction process.

*Political:* City, State, Federal

*Role:* Infrastructural improvements. Continue re-zoning process. Provision of funding. Facilitate the re-location of residences. Management of public programmes.

*Community:* Neighbourhood Residents, Community Groups & Organizations, Local Businesses

*Role:* Continue the deconstruction process. Organize community members and groups affiliated with urban farming movement. Contact and train people and businesses interested in homestead farms.

*Corporate:* Private Businesses

*Role:* Continue management of site and liaison responsibilities. Allot revenue to future construction.

#### Milestones:

- Complete phase 2 of deconstruction
- Complete construction of new parks
- Identify new programme to be implemented in the neighbourhood
- Continue construction on site
- Get funding for Stage 3
- Meet with all players at the beginning of the stage for feedback
- Meet with all players at the end of the stage to get feedback and outline goals and timeline of next stage

## Stage 4:

### Parks & Green Connections (15-20 years)

As the deconstruction process continues to take place, programmatically defined areas begin to emerge. More park space is created and is connected to the existing park system through enhancement of the parkways.

#### Players & Roles:

*Professionals:* Architect/Planner, Engineers, Contractors

*Role:* Design homesteads with community input. Identify homes to be consolidated. Identify and prepare future park land. Design/build green landscaped connections.

*Political:* City, State, Federal

*Role:* Urban landscape and infrastructural improvements. Continue re-zoning process. Provision of funding. Facilitate consolidation process. Management of public programmes.

*Community:* Neighbourhood Residents, Community Groups & Organizations, Local Businesses

*Role:* Management of homestead programme through a cooperative organization. Find local businesses to lease new commercial space available on site.

*Corporate:* Private Businesses

*Role:* Continue management of site and liaison responsibilities. Allot revenue to future construction.

#### Milestones:

- Complete phase 3 of deconstruction, consolidate housing
- Complete construction of new parks, green connections & infrastructure improvements
- Identify new programme to be implemented in the neighbourhood
- Continue construction on site
- Get funding for Stage 4
- Meet with all players at the beginning of the stage for feedback
- Meet with all players at the end of the stage to get feedback and outline goals and timeline of next stage

# Staged Design Strategy: A 25 Year Plan

## **Stage 5:**

### **Development & Transportation (20-25 years)**

Clear areas of building density and open space are now apparent. Strong connections have been established and improved. The final stage looks to build upon these connections allowing for development and improved transportation along specific corridors. Expanding the city's existing light rail line to connect Buffalo's East Side with the Downtown and North End.

### **Players & Roles:**

*Professionals:* **Architect/Planner, Engineers, Contractors**

*Role:* Design/ build new public transportation. Design/ build new parks.

*Political:* **City, State, Federal**

*Role:* Management of all public programme

*Community:* **Neighbourhood Residents, Community Groups & Organizations, Local Businesses**

*Role:* Management of community programmes and local businesses involved with site and neighbourhood. Creation of neighbourhood organization which will continue to draw interest to neighbourhood through education, marketing and promotion.

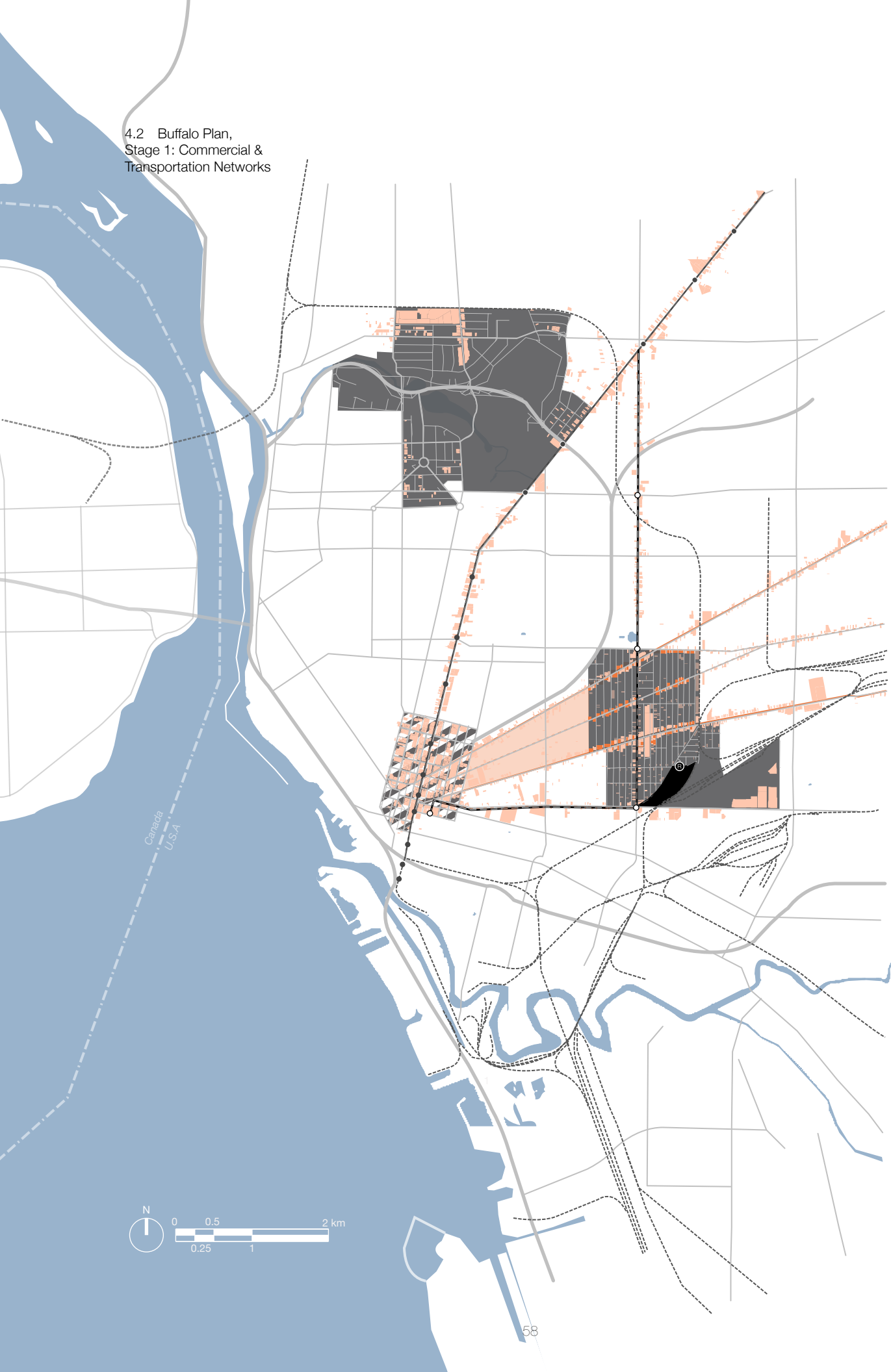
*Corporate:* **Private Businesses**

*Role:* Continue management of site and liaison responsibilities.

### **Milestones:**

- Complete construction of new park
- Complete construction of new transportation network
- Finish construction on site
- Final meeting to document feedback on the process and strategy

4.2 Buffalo Plan,  
Stage 1: Commercial &  
Transportation Networks





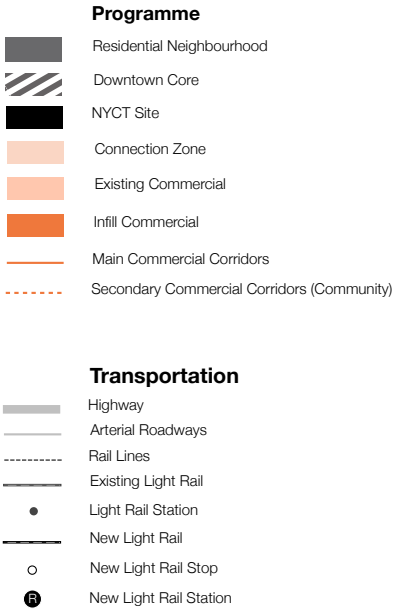
# Stage 1: Urban Scale

## Commercial Corridors & Transportation Networks 0-3 years

Stage 1 identifies the urban artifacts and networks to be improved and strengthened.

Buffalo has clearly defined commercial corridors, which extend from the original downtown street grid into East Buffalo and beyond. These corridors consist of main vehicular arteries lined by commercial and public buildings. These corridors will be zoned for future development of commercial, public and community buildings. Their infrastructure will also be improved in order to manage the large amount of through traffic from buses and cars.

The city's transportation networks consist mainly of bus routes which follow the city's primary roadways. A light rail line also connects the downtown core to the city's north end, including the University at Buffalo. The existing light rail network does not connect to the City's East Side. This stage establishes a new light rail route which connects to the existing route encircling the city, and adds a new station stop located within the Terminal Building.



4.3 Buffalo Plan,  
Stage 1: Parks &  
Green Connections



## Stage 1: Urban Scale

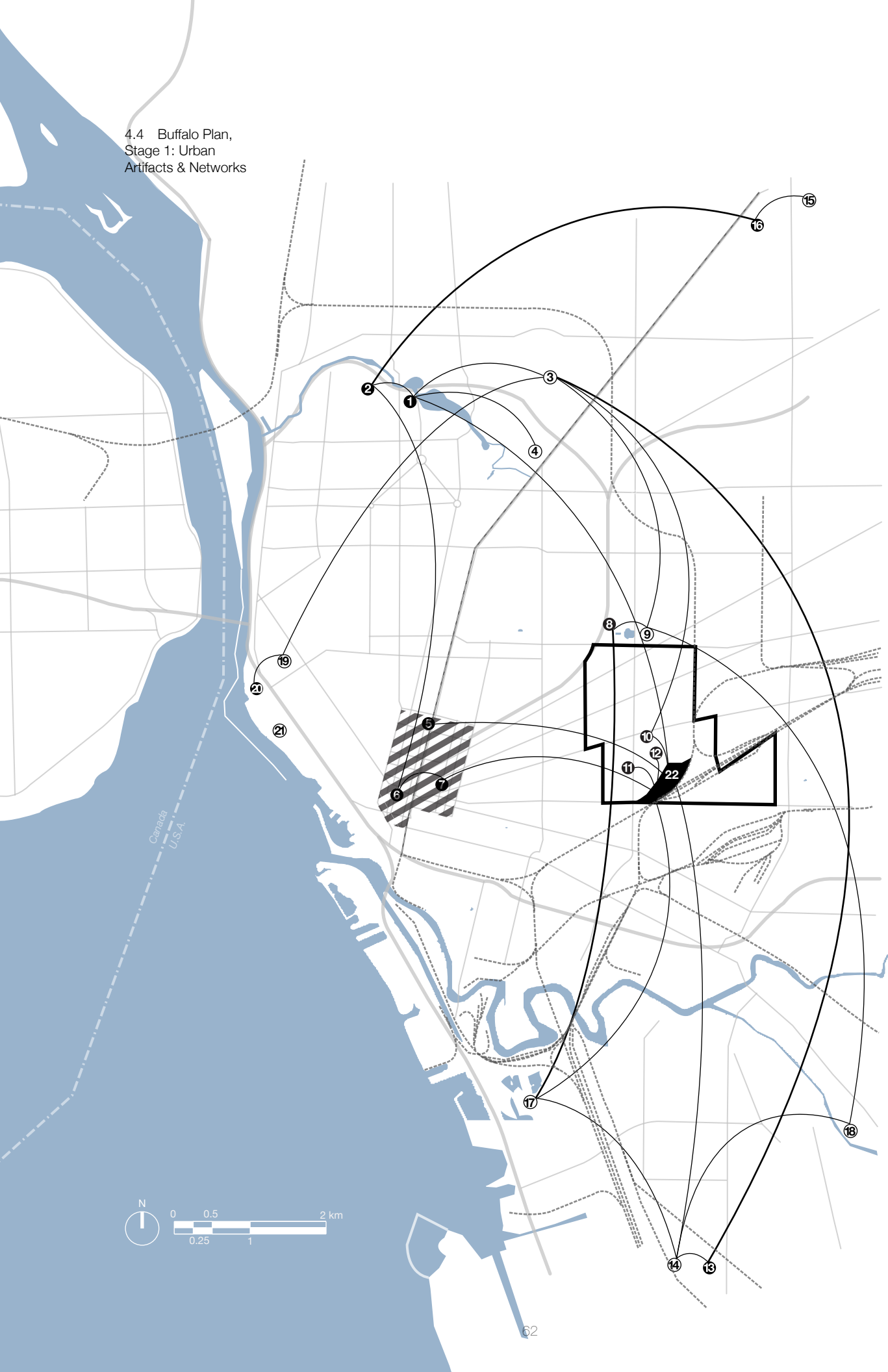
### Parks and Green Connections 0-3 years

Buffalo's parks system has been in existence for more than a century. These parks are connected by a series of parkways, tree-lined boulevards that provide space for pedestrian and vehicular circulation. Stage 1 outlines how new and existing parks will connect with improved and additional parkways. In some cases, these parkways will provide additional space for public transportation and bike routes.

The existing 21st Century Plan, was developed by the Buffalo Olmsted Parks Conservancy. The plan outlines updates and improvements, proposed for the Olmsted Park System. The identification of new green connections and parks builds upon the recommendations made in The 21st Century Plan. This ensures the preservation of existing parks and the creation of a strong green network which connects existing parks and new green space by way of parkways, in keeping with the design heritage of the system.



4.4 Buffalo Plan,  
Stage 1: Urban  
Artifacts & Networks



# Stage 1: Urban Scale

## Urban Artifacts & Networks (0-3 years)

Identification of urban artifacts and the networks they are apart of is an integral component of the Staged Design Strategy.


Even though Buffalo has lost population, the City has managed to maintain its vast array of cultural institutions, parks and important buildings which serve its citizens. These places are not only important parts of the urban fabric, they are also places which have historical significance - they provide the citizens opportunities for education, exposure to the arts, experience with nature and a connection to the City's past.

Buffalo's urban artifacts are interconnected, many are affiliated with each other through shared funding, alliances and educational programmes. The network of connection allows them to function successfully even as the city shrinks.





### Urban Artifacts

- 1 Albright Knox Gallery
- 2 University at Buffalo
- 3 Delaware Park
- 4 Forest Lawn Cemetary
- 5 Shea Center for the Performing Arts
- 6 City Hall
- 7 Erie County Central Library
- 8 Buffalo Science Museum
- 9 Martin Luther King Jr. Park
- 10 Broadway Market
- 11 St.Stanislaus Church
- 12 Corpus Christi Chruch
- 13 Buffalo Botanical Gardens
- 14 South Park Arboretum
- 15 Grover Cleveland Park
- 16 University at Buffalo South Campus
- 17 Tift Nature Preserve
- 18 Cazenovia Park
- 19 Front Park
- 20 West Side Rowing Club
- 21 La Salle Park
- 22 New York Central Terminal (Site)

### Programme

-  Existing Connection
-  New Connection
-  Park/ Green Space
-  Building
-  NYCT Site
-  Broadway & Fillmore
-  Downtown Core

### Transportation

-  Highway
-  Arterial Roadways
-  Rail Lines
-  Light Rail

## Stage 1: Urban Scale

### Urban Artifacts

#### 1 The Albright-Knox Gallery

est. 1900-1905,1962

The Albright-Knox Gallery was designed by Green and Wicks architects. An additional wing was added by Skidmore, Owings and Merrill architects in 1962. The art gallery was a gift to the City from a wealthy industrialist, John J. Albright. It houses one of the best collections of modern art in the United States and is on the registrar of National Historic Places.



#### 2 University at Buffalo

est. 1846

The university was founded in 1846 as a private medical college. In 1962, the university merged with the The State University of New York, a public college. Today, the school is home to twelve professional schools and a College of Arts and Sciences.



#### 3 Delaware Park

est. 1868-1876

Designed by Fredrick Law Olmsted and Calvert Vaux. the park is the largest in a series of parks designed by the team for the city. The park's 250 acres include 243 acres of meadow land and a 46 acre lake made by the damming of Scajaquada Creek. The park features Olmsted's sunken parkways also seen in Central Park, to move traffic through the park without disturbing it.



#### 4 Forest Lawn Cemetery

est. 1850

The cemetery dates from 1850, although it houses graves that are much older. It is encircled by a wrought iron fence and sits below Delaware Park.



## Stage 1: Urban Scale Urban Artifacts



### 5 Shea's Performing Arts Center

est. 1925

The theater was designed by C.W. and George Rapp to emulate the style of European opera houses. It operated from its establishment to the mid-1970s at which time it was foreclosed and the city took ownership. Today the theater operates as a performing arts center and is a National Historic Site.



### 6 Buffalo City Hall

est. 1929-1931

Designed by Dietel, Wade & Jones, the City Hall is a one of finest testaments to Art Deco design in the city. The building still operates as the City Hall and houses many city services. In 1999 it became a National Historic Site.



### 7 Erie County Central Library

est. 1961-1963

This building is located in Buffalo's downtown. It is the city's largest library and helps to manage the many smaller community libraries within the city.



### 8 Buffalo Museum of Science

est. 1929

Designed by Esenwein and Johnson architects in 1929 the building has always operated as a science museum. Today it also manages the Tift Nature preserve. It sits at the edge of Humboldt Park.

## Stage 1: Urban Scale

### Urban Artifacts

#### 9 Humboldt Park (Martin Luther King Jr. Park)

est. 1896-1925

This park was originally know as “The Parade,” and was designed as part of Olmsted’s park system for Buffalo. The Buffalo Museum of Science sits on the edge of the park and three historic structures sit within the park. The park is a National Historic Site.



#### 10 Broadway Market

est. 1888

The market was founded in 1888 by local residents of the Broadway and Fillmore neighbourhood. After the original market building burned down, a new one was built in 1956. The market is open year round and is one of the oldest farmers markets in the nation.



#### 11 St. Stanislaus Church

est. 1883-1886

The first Polish church in Buffalo it was designed by architect T.O. Sullivan. His two tower design became the model for churches built in the East Side Polish community.



#### 12 Corpus Christi Church

est. 1907-1909

Designed by Schmill and Gould architects this church’s dark exterior is balanced by its light filled and highly ornate interior. The church has over 11,000 interior lights, so many that the basement of the church houses it own generator. The church is a National Historic Site.





## Stage 1: Urban Scale Urban Artifacts



### 13 Buffalo Botanical Gardens

est. 1897-1899

The Buffalo Botanical Gardens was designed by Frederick Law Olmsted as part of his larger park plan for Buffalo. The site is a National Historic Site. The three domed conservatory houses a variety of exotic tropical plants. The conservatory is managed by the Erie County Botanical Gardens Society.



### 14 South Park Arboretum

est. 1894-1910

South Park was also designed by Olmsted. The park is home to an arboretum, shrub garden and bog garden. The park is encircled by a ring road and is transversed by a series of pathways. In 1915 a nine hole golf course was added to the park. The Buffalo Olmsted Conservancy has played an important role in restoration of the park in recent years.



### 15 Grover Cleveland Park & Golf Course

est. 1900

Grover Cleveland Park was originally owned by the Country Club of Buffalo. It houses a public eighteen hole golf course which is managed by Erie County Parks and Community Recreation Services.



### 16 University at Buffalo - South Campus

est. 1910

The University at Buffalo South Campus sits on the former site of the Erie County Almshouse and Insane Asylum. The college was designed by the architect E.B. Green. This campus was originally the main campus of the University. The South Campus contains the Schools of Architecture & Urban Planning, Medicine, Dental Medicine, Nursing and Public Health.

## Stage 1: Urban Scale

### Urban Artifacts

#### 17 Tiff Nature Preserve

est. 1972

The Tiff Nature preserve is a 264 acre nature refuge. The site was originally a dairy farm. In Buffalo's industrial hay-day it was used to receive shipments of coal and iron ore. Finally it was used as a city dump during the 1950s and 60s. In the 1970s the site was converted into a nature preserve including a cattail marsh. In 1982 the preserve became a department of the Buffalo Museum of Science.



#### 18 Cazenovia Park

est. 1893-1925

Cazenovia Park was designed in 1893 by Fredrick Law Olmsted. It is connected to South Park by the Red Jacket and McKinley Parkways. The park was originally 80 acres but expanded to 106 acres in 1925 to include the addition of a nine-hole golf course. The park takes its name from Cazenovia creek which runs through it. It is also home to two significant Park out buildings "The Casino" and "The Shelter House".



#### 19 Front Park

est. 1870-1925

The park's 37 acres overlook the Niagara river. It was designed by Fredrick Law Olmsted. In 1950, the New York State freeway was built and it blocking the park's access to the water, along with this construction came the expansion of the Peace bridge connecting Buffalo to Niagara Falls, Canada. Expansion of the Peace Bridge border facilities have further severed the park from the surrounding urban fabric.



#### 20 West Side Rowing Club

est. 1901, 2007

The West Side Rowing Club was established in 1901. In 2007 the completion of a 1905, Frank Lloyd Wright designed boathouse was completed on the site. The club has been home to many competitions including the Olympics.



## Stage 1: Urban Scale Urban Artifacts



### 21 La Salle Park

est. 1911-1931

Located on the site of a former dump along the Niagara River, the park houses an Amphitheater which hosts a variety of concerts throughout the year. It also has a variety of recreational facilities, such as soccer fields, baseball diamonds, trails and a large playground.

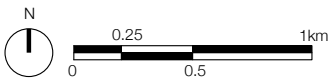
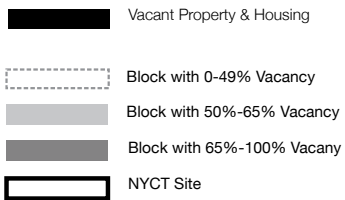
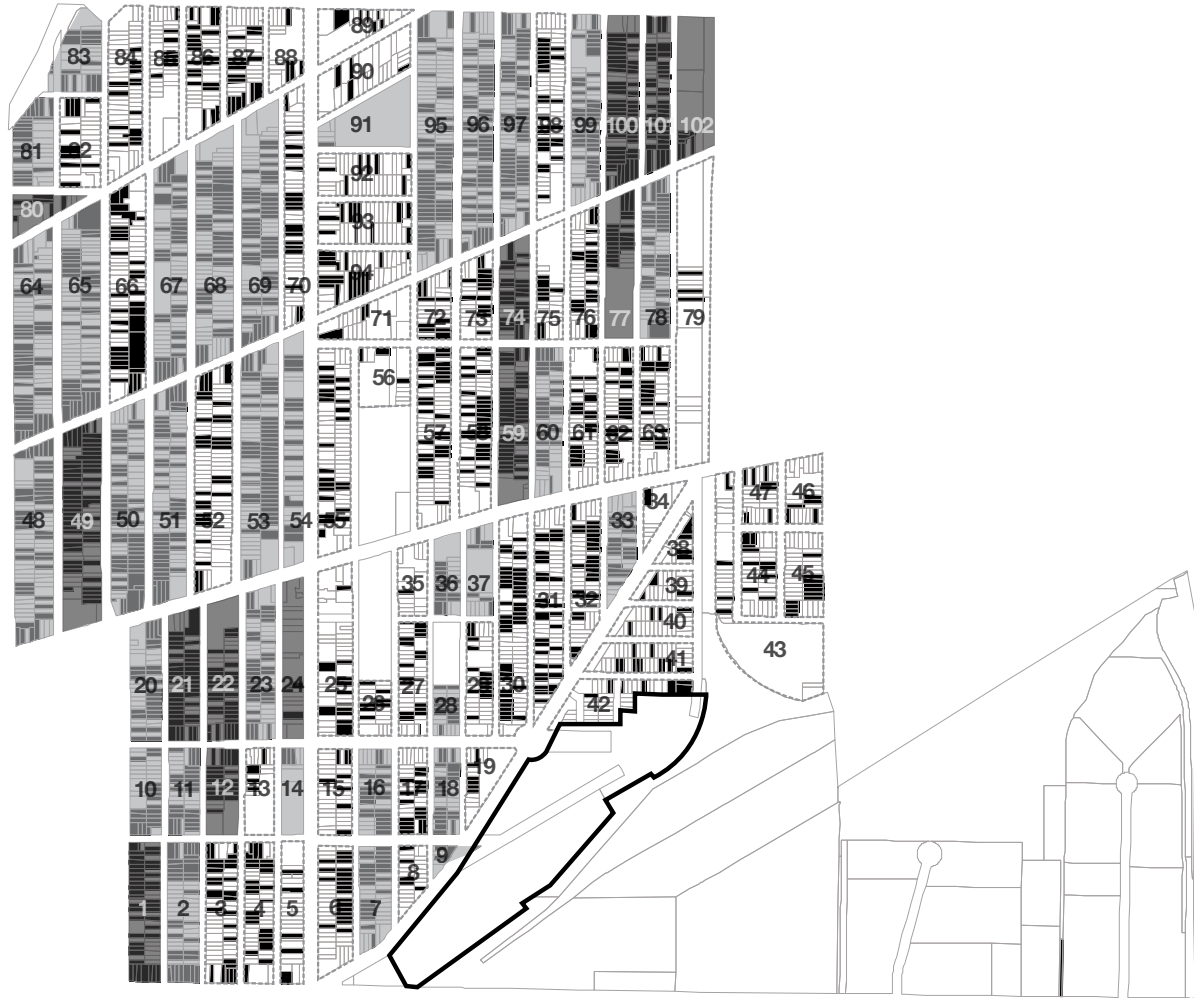


### 21 New York Central Terminal

est. 1927-1929

The Terminal and seventeen-storey office tower was designed by Fellheimer & Wagner Architects. The building was in operation from 1929 until 1979, although ownership of the building and site changed hands many times during this time. In 1981, the bridge which connected the Terminal to the Train Concourse and platforms was demolished to allow for taller freight lines to move on the rail lines below. The Terminal and train concourse were divided into separate sites to allow for separate ownership. In 1984 the Terminal was placed on the National Registrar of Historical Places. In 1986, the owner of the Terminal declared bankruptcy and the site was put up for foreclosure sale at auction by the city. In 1997 ownership of the Terminal site was transferred to the Central, Terminal Restoration Corporation. The corporation is slowly restoring the Terminal and released a master plan for its re-use on March 10th, 2011.

4.27 Broadway &  
Fillmore Plan, Stage 1:  
Vacancies



## Stage 1: Neighbourhood Scale

### 4.28 Block by Block Vacancy Inventory

### Identification of Vacancies 0-3 years

Blocks	% of Vacant	Vacant Lots	Vacant House	Owned Houses	Rented Houses	Occupants
1	68%	33	9	13	7	60
2	56%	33	1	19	8	81
3	46%	25	1	12	19	93
4	47%	19	5	10	17	81
5	28%	3	2	7	6	39
6	44%	13	7	13	12	75
7	55%	14	8	8	10	54
8	22%	1	4	11	7	54
9	60%	1	2	2	0	6
10	54%	18	1	9	7	48
11	62%	20	4	10	5	45
12	76%	18	1	4	2	18
13	36%	3	2	4	5	27
14	60%	3	0	1	1	6
15	30%	7	1	14	5	57
16	50%	9	10	9	10	57
17	46%	10	7	9	11	60
18	59%	12	7	4	9	39
19	43%	4	2	5	3	24
20	54%	22	3	14	7	63
21	78%	34	4	6	5	33
22	66%	28	3	8	8	48
23	57%	20	15	10	16	78
24	57%	2	0	1	0	3
25	48%	9	2	7	5	36
26	30%	4	3	8	8	48
27	37%	8	7	12	14	78
28	59%	2	11	5	4	27
29	34%	6	7	10	15	75
30	48%	25	14	10	32	126
31	45%	17	1	8	14	66
32	31%	2	2	8	1	27
33	57%	13	4	7	6	39
34	33%	1	0	1	1	6
35	25%	1	0	1	2	9
36	61%	11	3	8	1	27
37	50%	5	2	1	6	21
38	44%	4	0	4	1	15
39	17%	3	0	12	3	45
40	14%	4	0	13	12	75
41	22%	4	4	12	16	84
42	18%	5	2	18	15	99
43	22%	4	0	10	4	42
44	29%	9	1	11	13	72
45	28%	4	7	20	9	87
46	25%	4	0	10	2	36
47	32%	5	2	10	5	45
48	51%	37	4	22	17	117
49	69%	45	8	14	11	75
50	60%	43	6	24	9	99
51	55%	40	8	17	22	117
52	34%	25	3	31	24	165
53	62%	50	3	16	17	99
54	54%	12	2	10	2	36
55	39%	14	10	12	26	114
56	27%	1	2	5	3	24
57	45%	16	11	11	22	99
58	49%	20	8	8	21	87
59	67%	30	9	8	11	57
60	52%	24	4	12	14	78
61	44%	17	2	13	11	72
62	49%	18	3	11	11	66
63	44%	14	5	7	17	72
64	53%	43	5	25	10	105
65	50%	33	10	29	14	129
66	46%	30	2	22	16	114
67	55%	36	4	23	10	99
68	51%	35	8	20	22	126
69	54%	40	8	18	23	123
70	43%	10	7	16	7	69
71	30%	3	0	4	3	21
72	38%	7	4	5	13	54
73	47%	8	6	7	9	48
74	69%	19	5	6	5	33
75	45%	9	0	4	7	33
76	41%	17	4	14	16	90
77	77%	18	2	2	4	18
78	63%	34	6	10	14	72
79	38%	2	1	3	2	15
80	75%	6	0	0	2	6
81	55%	22	0	12	6	54
82	36%	10	0	12	6	54
83	57%	15	2	7	6	39
84	25%	12	2	29	12	123
85	21%	6	2	18	12	90
86	45%	19	2	18	8	78
87	35%	14	1	18	10	84
88	29%	4	0	4	6	30
89	43%	6	0	4	4	24
90	21%	3	1	10	5	45
91	50%	0	1	1	0	3
92	18%	0	7	12	20	96
93	32%	13	0	18	10	84
94	41%	10	5	12	10	66
95	50%	36	14	26	25	153
96	53%	41	11	26	20	138
97	63%	49	9	15	19	102
98	38%	23	4	20	25	135
99	62%	34	7	12	13	75
100	71%	37	7	8	10	54
101	67%	32	7	8	11	57
102	86%	5	1	0	1	3
<b>TOTALS</b>	<b>49%</b>	<b>1649</b>	<b>414</b>	<b>1128</b>	<b>1023</b>	<b>6453</b>

At the neighbourhood scale, Stage 1 focuses on identifying all the vacant buildings and properties within the Broadway and Fillmore neighbourhood. Through this study a block by block analysis is done comparing the number of occupied and vacant properties to the total number of properties (Figure 4.27). The block by block analysis thus provides a percentage of vacancy for every block within the neighbourhood.

The blocks have been separated into three categories (Figure 4.28),

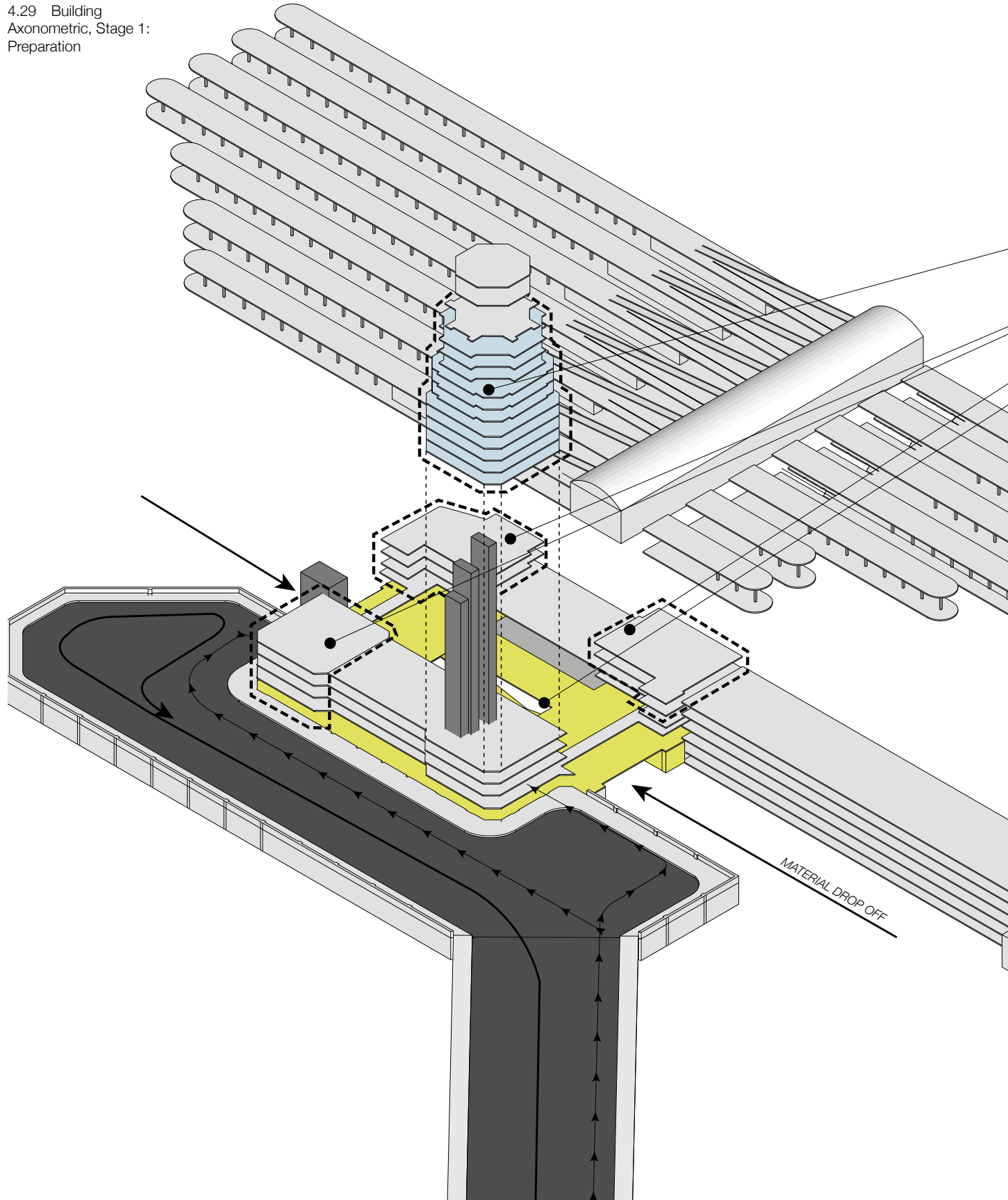
1. 65%-100% Vacant

2. 50%-64% Vacant

3. 0%-49% Vacant

These categories create a hierarchy of block vacancy which is used to identify areas of high vacancy proposed for deconstruction.

4.29 Building  
Axonometric, Stage 1:  
Preparation

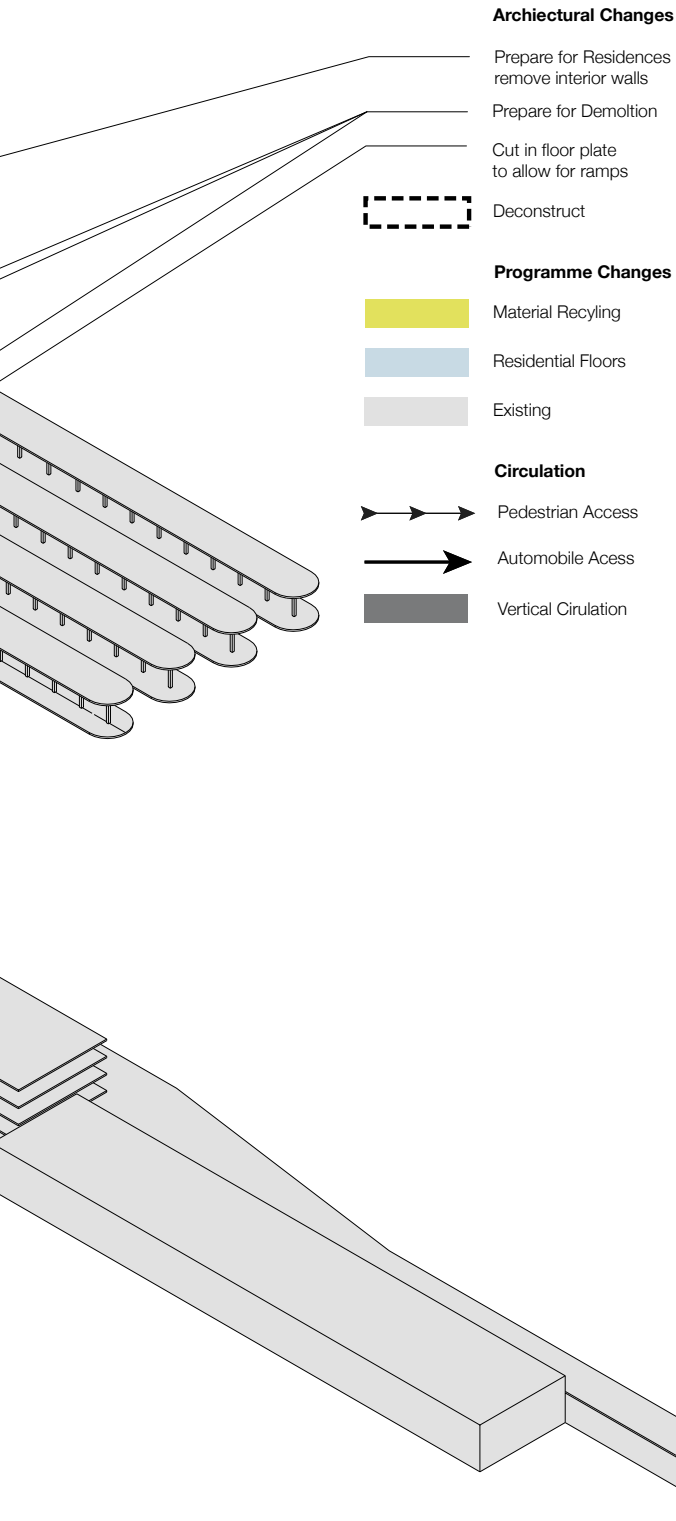




# Stage 1: Building Design

## Building Preparation 0-3 years

Stage 1 at the building scale identifies the first programmes which will be introduced within the Terminal. This three-year period will allow for preparation and improvements to be made to the structural, mechanical and electrical systems, ensuring the Terminal's ability to successfully manage future design and programme changes.



4.30 Buffalo Pan,  
Stage 2: Deconstruct  
and Preserve



**Programme**

- Park
- Recreational
- Vacant Property
- Successful Neighbourhoods
- Broadway & Fillmore Neighbourhood
- NYCT Site

**Transportation**

- Highway
- Arterial Roadways
- Rail Lines
- Light Rail Lines



## Stage 2: Urban & Neighbourhood Scale

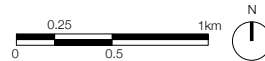
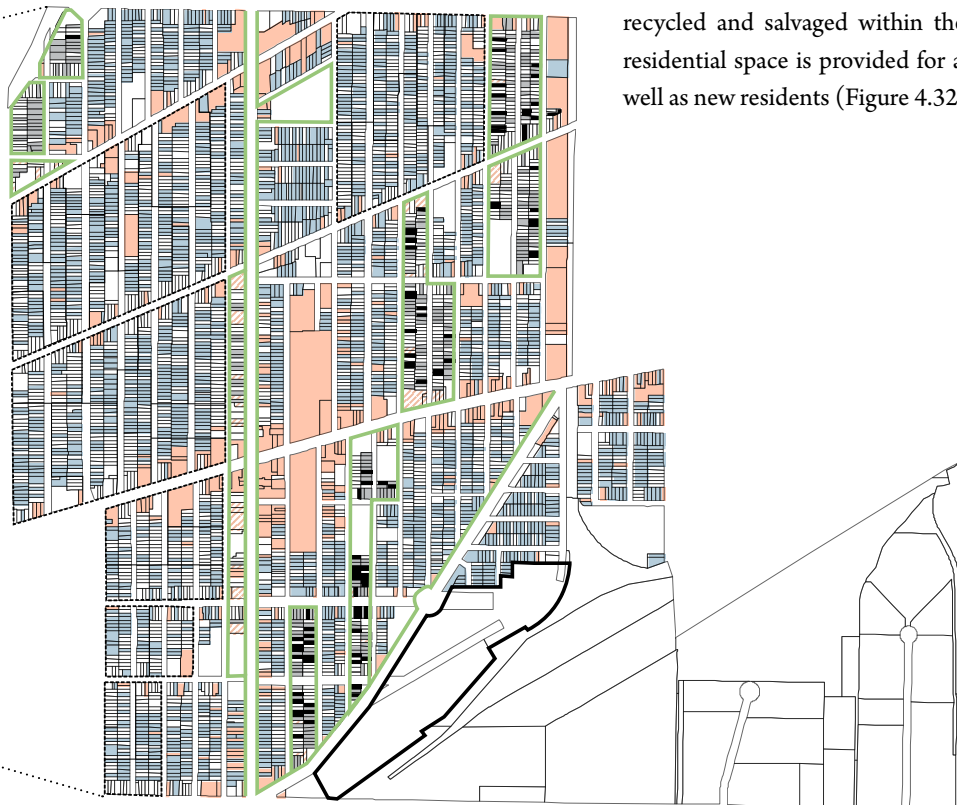
### Deconstruct and Preserve 3-8 years

At all scales, Stage 2 addresses the deconstruction process of both residential and commercial buildings identified in Stage 1 (Figure 4.30-4.31). At the same time important buildings and usable housing stocks are identified for preservation.

Stage 2 also outlines existing and future parks. Future park land will be created through the deconstruction process. The land will then be remediated and prepared for planting and landscaping.

Materials from the deconstruction process are recycled and salvaged within the Terminal building and residential space is provided for any displaced residents, as well as new residents (Figure 4.32).

4.31 Broadway &  
Fillmore Plan, Stage 2:  
Deconstruct and Preserve

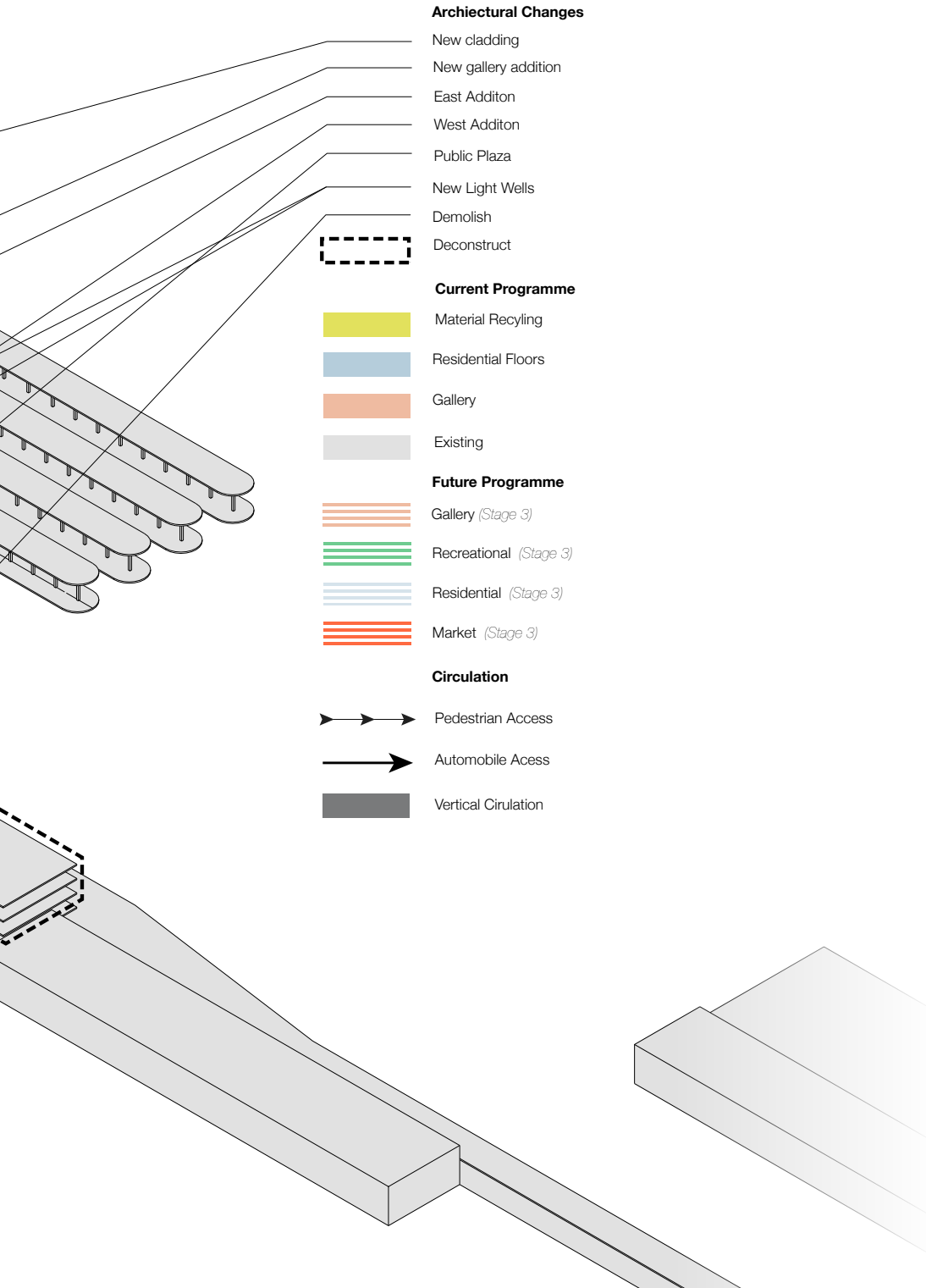


4.32 Building  
Axonometric, Stage 2:  
Deconstruct and Preserve

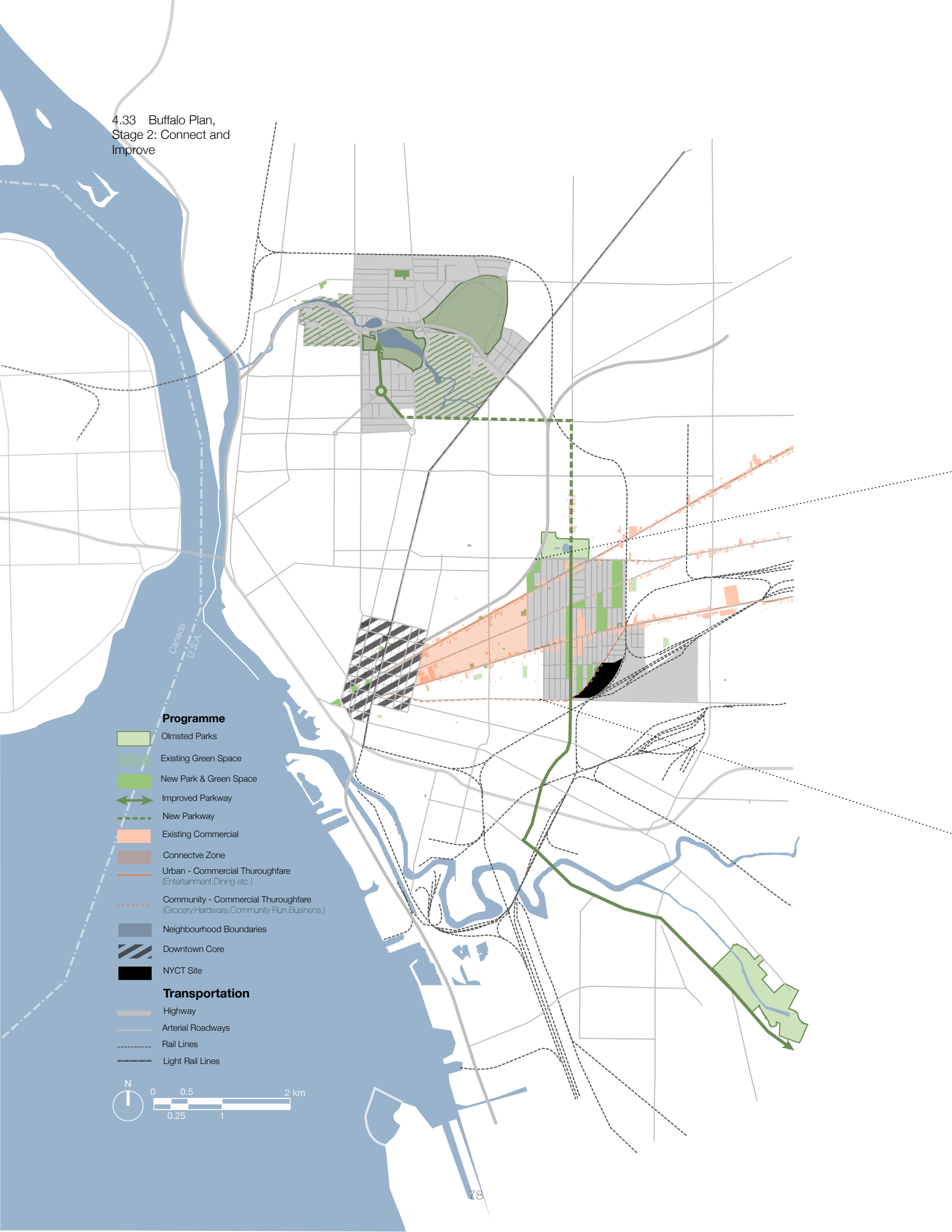


## Stage 2: Building Scale

Deconstruct and Preserve  
3-8 years



4.33 Buffalo Plan,  
Stage 2: Connect and  
Improve



**Programme**

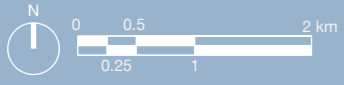
- Olmsted Parks
- Existing Green Space
- New Park & Green Space
- Improved Parkway
- New Parkway
- Existing Commercial
- Connective Zone
- Urban - Commercial Thoroughfare  
(Entertainment, Dining etc.)
- Community - Commercial Thoroughfare  
(Grocery, Hardware, Community Run Businesses.)

Neighbourhood Boundaries

- Downtown Core
- NYCT Site

**Transportation**

- Highway
- Arterial Roadways
- Rail Lines
- Light Rail Lines



## Stage 3: Urban & Neighbourhood Scale

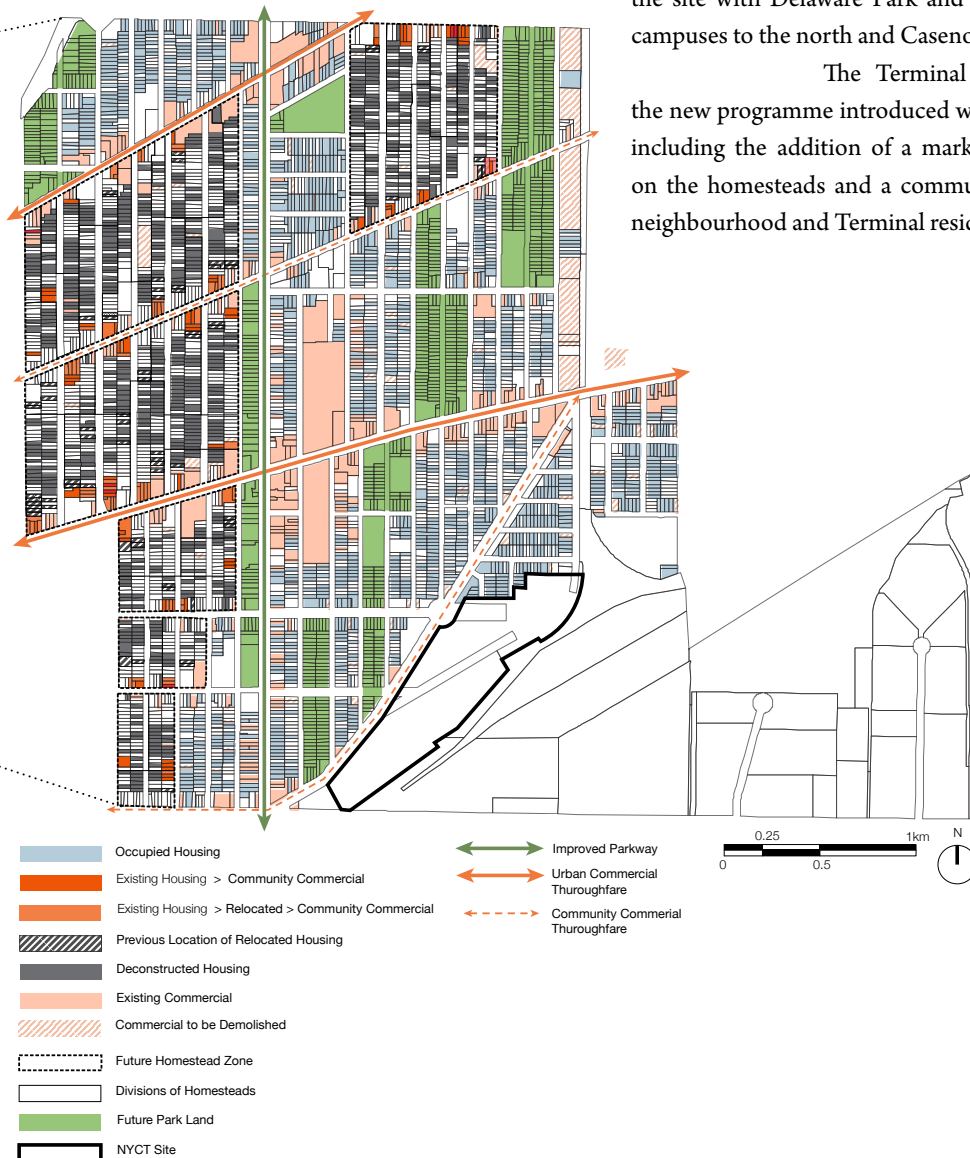
### Connect and Improve 8-15 years

Stage 3 continues with the deconstruction process. Deconstructing more buildings in order to create large tracts of open land which will be used as homesteads for urban farming.

This stage also develops important connections between Broadway and Fillmore and the downtown core, with a focus on developing commercial programme along these connections. A new parkway creates a green north-south connection through the site. This parkway connects the site with Delaware Park and the University at Buffalo campuses to the north and Casenovia Park to the south.

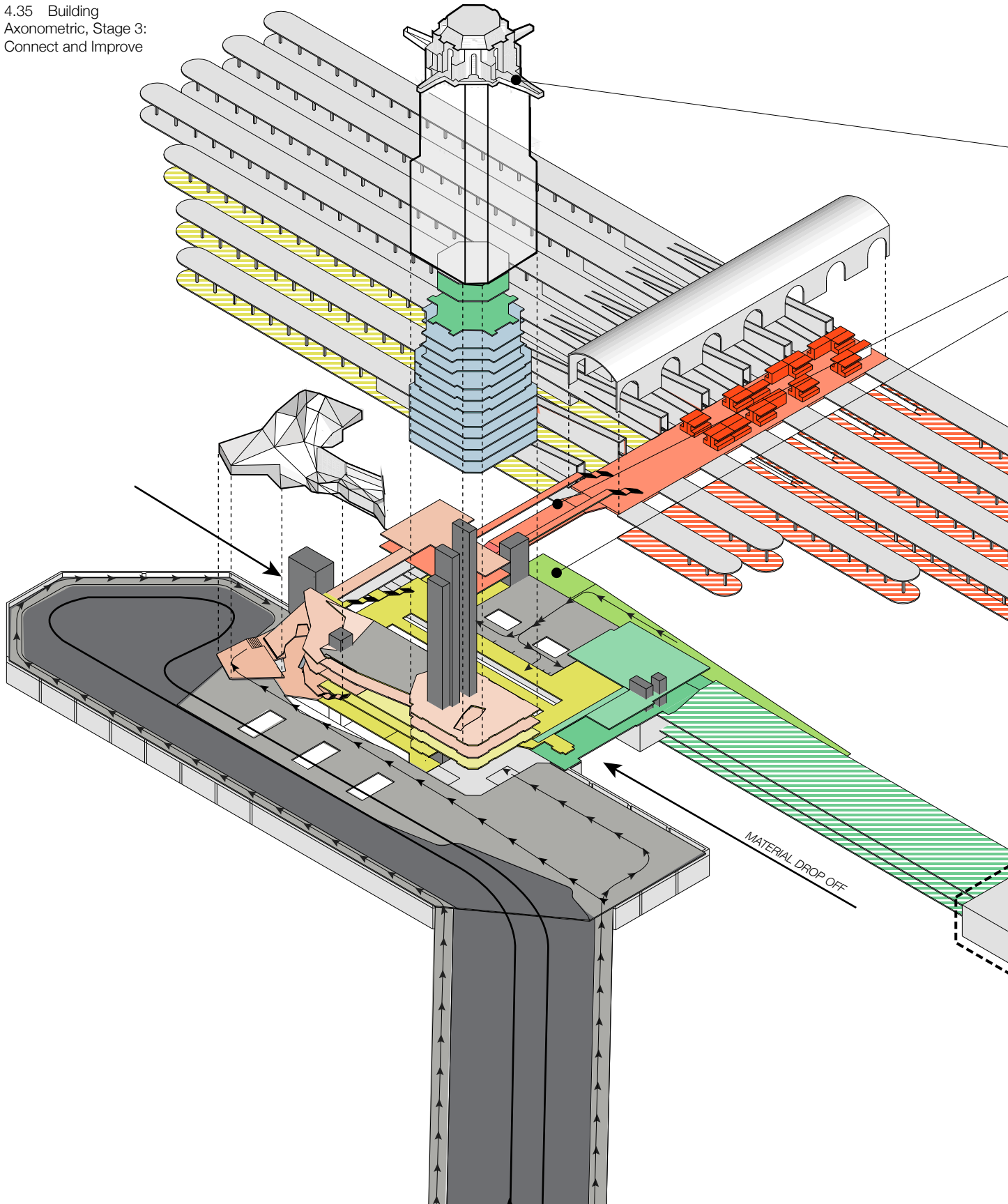
The Terminal building expands upon the new programme introduced within the neighbourhood, including the addition of a market to sell food produced on the homesteads and a community recreation space for neighbourhood and Terminal residents to use.

4.34 Broadway & Fillmore Plan, Stage 2: Connect and Improve

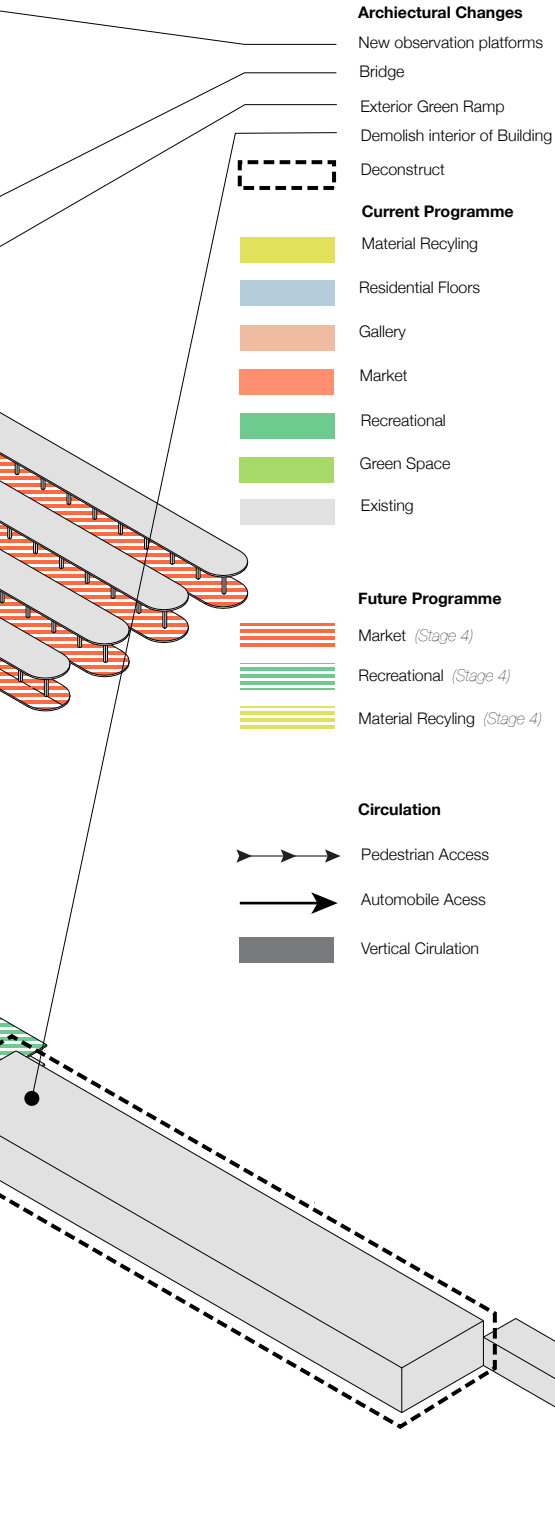




4.35 Building  
Axonometric, Stage 3:  
Connect and Improve



# Stage 3: Building Scale Connect and Improve 8-15 years



4.36 Buffalo Plan,  
Stage 4: Parks and  
Green Connections



# Stage 4: Urban & Neighbourhood Scale

## Parks and Green Connections 15-20 years

At the urban scale, Stage 4 develops upon the new parkway, adding tributary parkways which connect more of the existing parks.

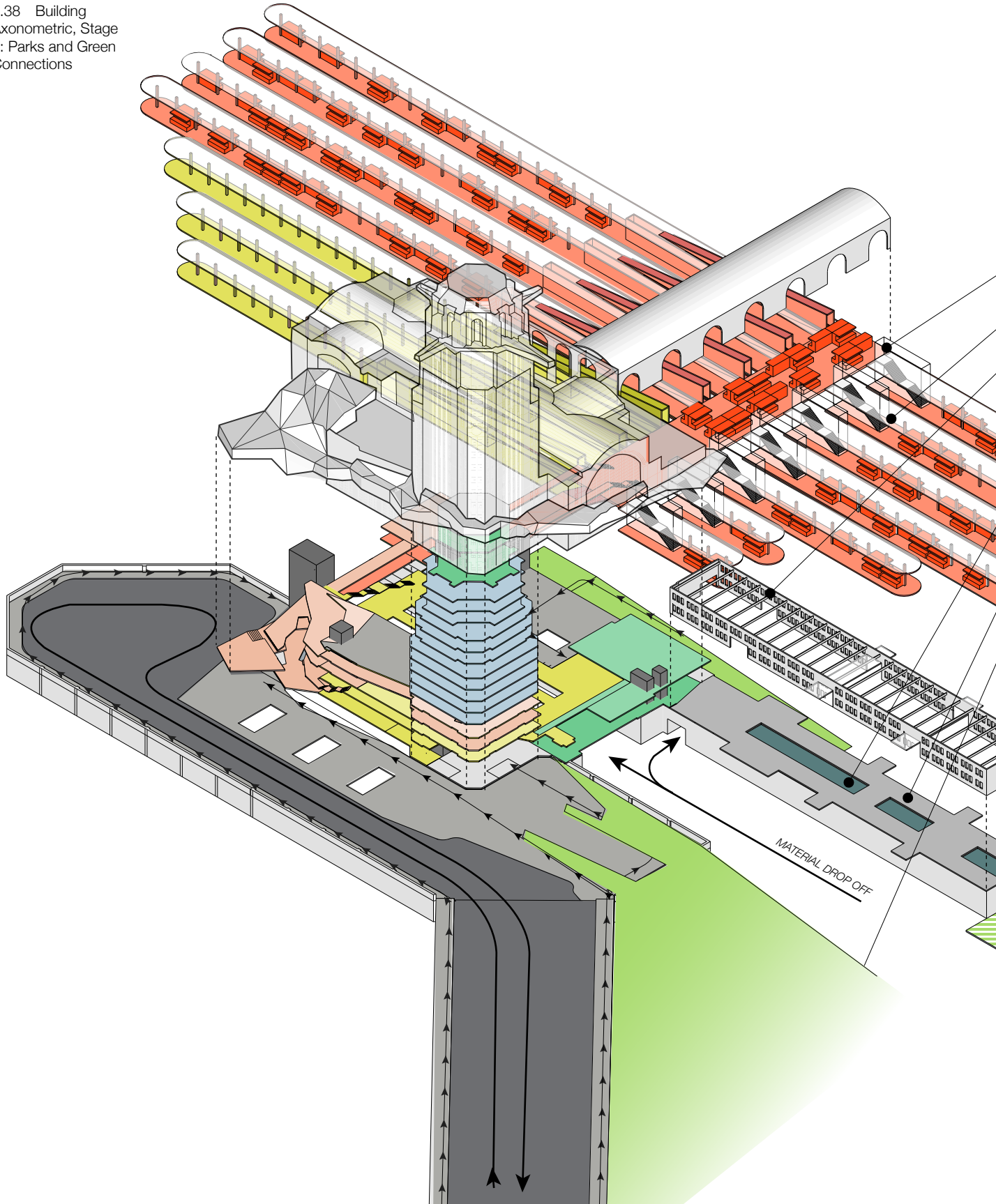
At the neighbourhood scale, additional future park space is identified. Homes and buildings that sit within the future park space are either demolished or relocated to other locations to create density.

Green space within the Terminal site is developed as well. Public pools, courtyards and walled gardens are added to the building creating a series of public, landscaped and recreational outdoor spaces.

4.37 Broadway & Fillmore Plan, Stage 4: Parks & Green Connections

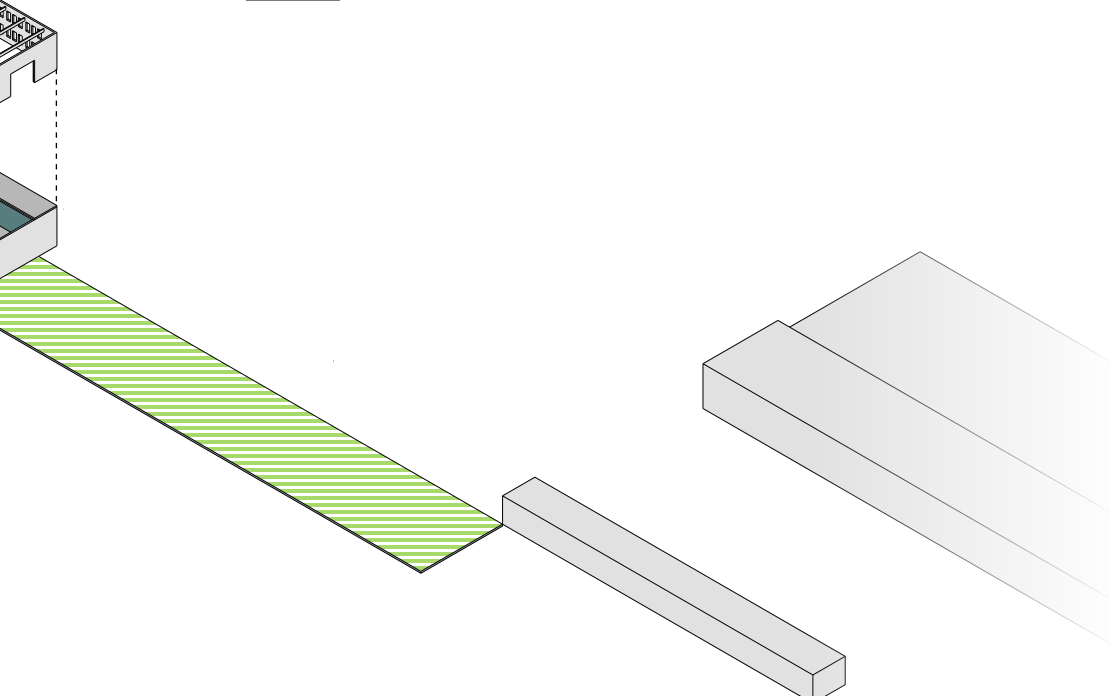
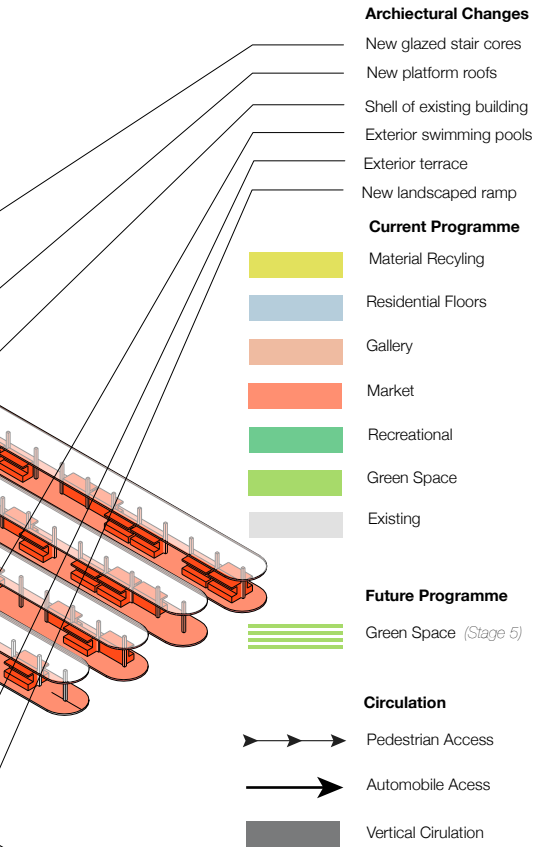


4.38 Building  
Axonometric, Stage  
4: Parks and Green  
Connections



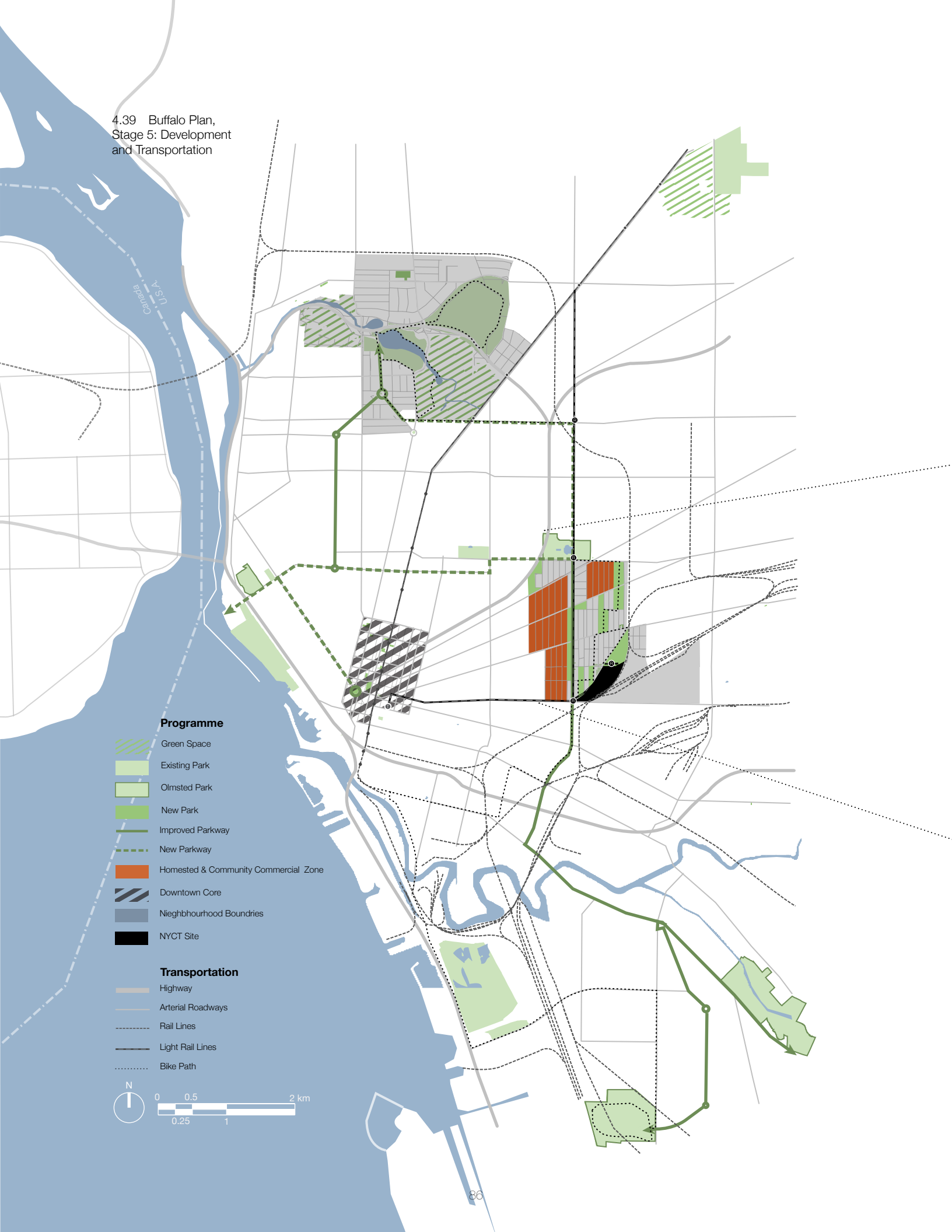
# Stage 4: Building Scale

Parks and Green Connections  
15-20 years










4.39 Buffalo Plan,  
Stage 5: Development  
and Transportation



**Programme**

-  Green Space
-  Existing Park
-  Olmsted Park
-  New Park
-  Improved Parkway
-  New Parkway
-  Homestead & Community Commercial Zone
-  Downtown Core
-  Neighbourhood Boundaries
-  NYCT Site

**Transportation**

-  Highway
-  Arterial Roadways
-  Rail Lines
-  Light Rail Lines
-  Bike Path





## Stage 5: Urban & Neighbourhood Scale Development and Transportation 20-25 years

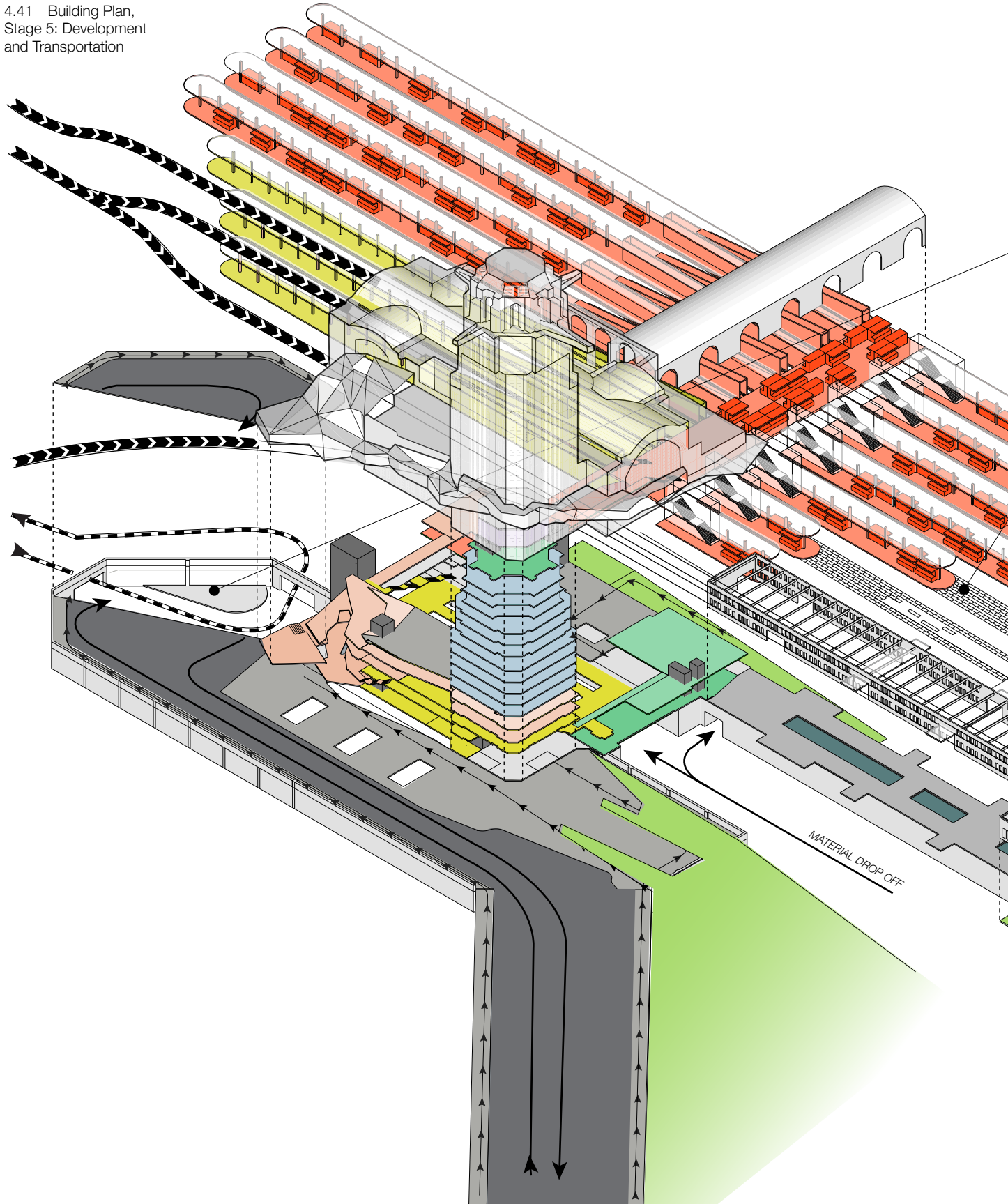
Stage 5 concentrates on developing new green transportation at all scales. A new light rail route added to the existing rail connects Broadway and Fillmore to the Downtown Core and the north end. New bike routes are developed and connect to existing routes within city parks.

The Terminal incorporates these new modes of transportation by adding a light rail station within the building as well as bicycle parking and change rooms. Other programme within the Terminal such as the market and recycling programme continue to expand.

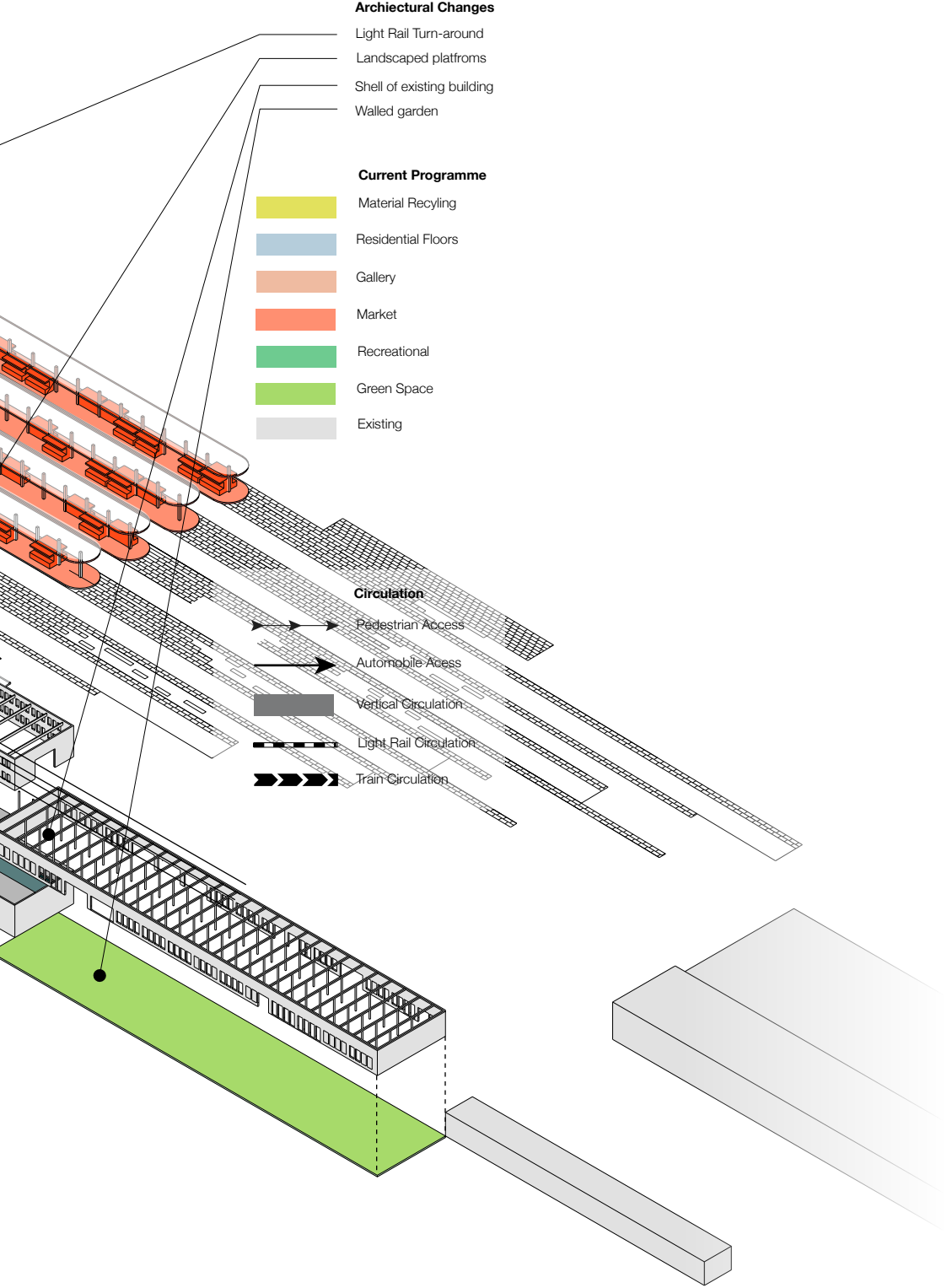
4.40 Broadway & Fillmore Plan, Stage 5: Development and Transportation



4.41 Building Plan,  
Stage 5: Development  
and Transportation



# Stage 5: Building Scale Development and Transportation 20-25 years





# Staged Design Strategy: A 25-Year Plan

## Conclusion

The Staged Design Strategy outlines a multi-scale approach to the re-envisioning of the City of Buffalo, the neighbourhood of Broadway and Fillmore and the New York Central Terminal building. It focuses on creating strong networks based on existing urban artifacts to spur natural growth and change, rather than using traditional methods of redevelopment. The strategy balances the deconstruction of vacant buildings to create productive open space, and the consolidation and densification of building along important arteries. It introduces the city to new industries such as urban agriculture and green deconstruction. As well, it strengthens the existing arts, parks and market programmes to create new jobs within the community and to draw interest from outside organizations and businesses.

The strategy provides a framework and timeline which can be applied to other cities looking to redevelop in a similar manner. It presents Buffalo as a case study for other cities, it also allows the design process of a multi-scale and a multi-player approach; involving the community at every stage, to become a new model for urban redevelopment.



## **Design:**

### **I. Programme Function**

### **II. Narrative Vignettes**

The design proposal is separated in two parts: Programme Function and Narrative Vignettes.

The first looks at the complex and varied programme of the Terminal and how it integrates with, or builds upon current and new networks. Emphasizing the building's important new role as a hub within the City and its ability to connect with and influence the surrounding neighbourhood and larger region.

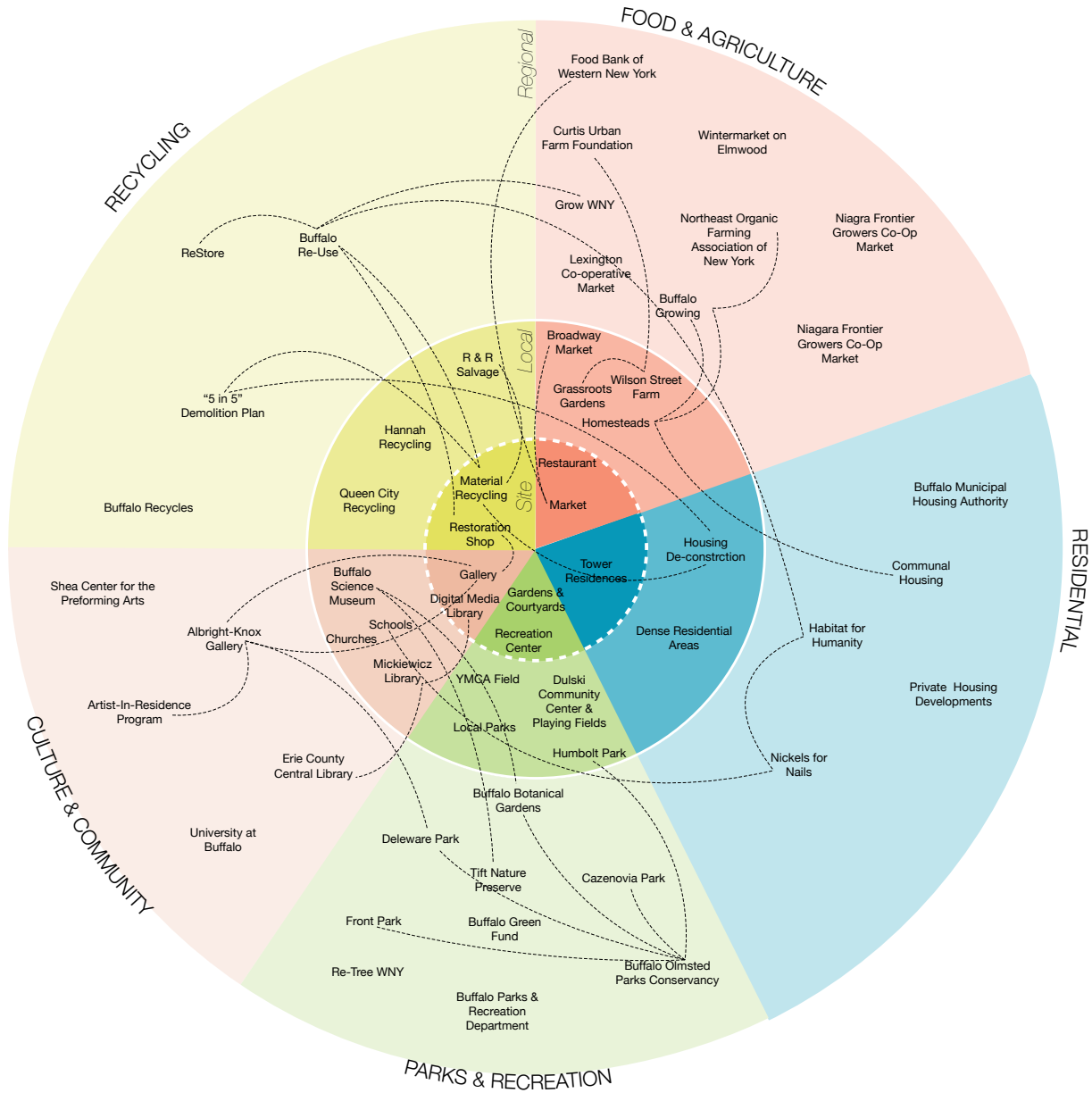
The second focuses on key parts of the design proposal which help to explain the greater narrative that the Terminal conveys. The narrative focuses on change through time, regenerating an important cultural site and thus a neighbourhood and city. The vignettes illustrate the grand vision of change at an urban scale, as well as detailing changes at the smaller scale of the building itself. Underlying the importance of the Terminal as both an symbol of urban regeneration and as a cultural presence in the lives of people.





Part One  
**Programme Function**

# Programme Diagram



5.1 Interrelated Programme Diagram: Site, Local & Regional

# Programme Function

## Community Network Design

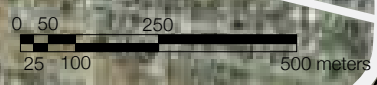
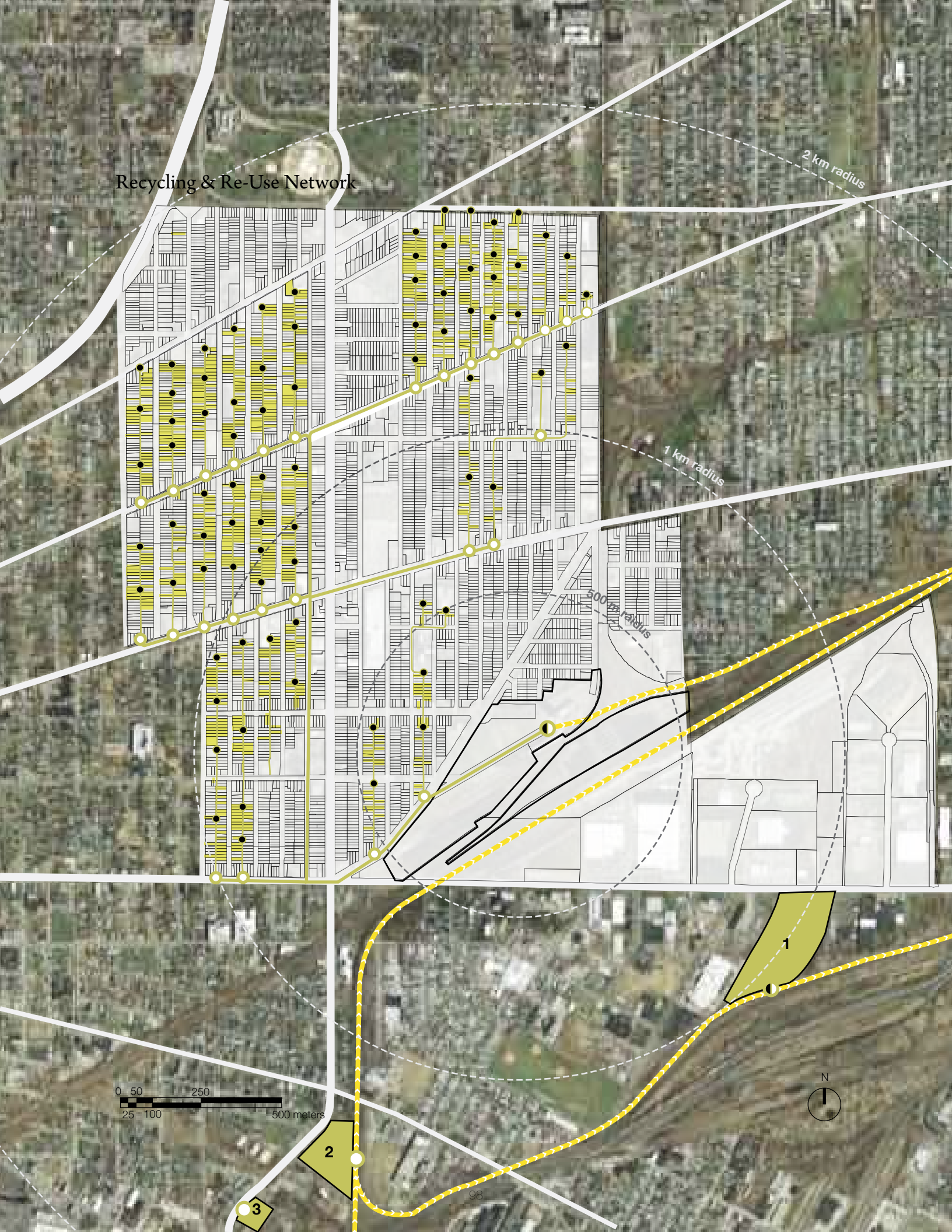
### Inter-connectivity

The complex programme that will function within the Terminal is critical both to the success of the building and to the success of the urban proposal.

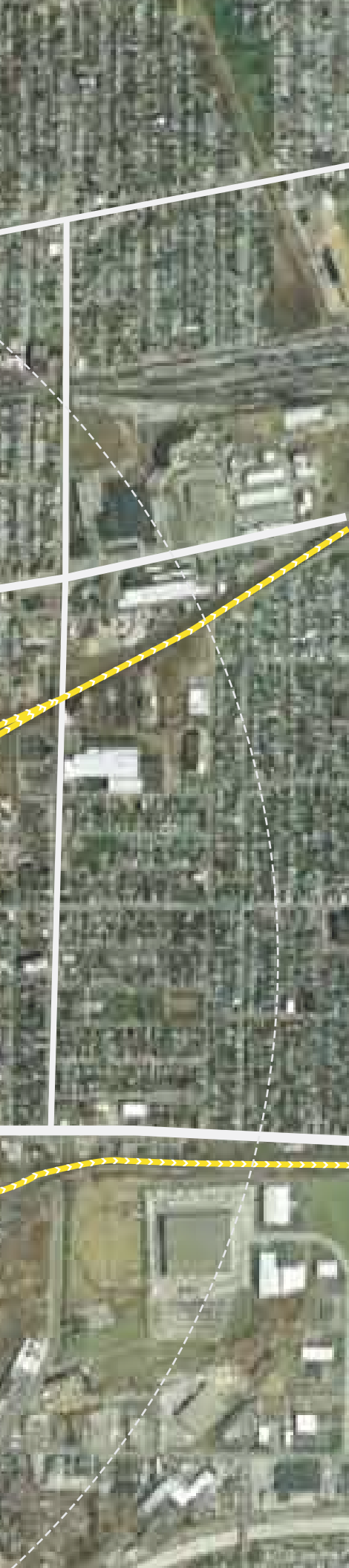
The variety of programmes will be implemented over-time as outlined in Section 4. The Staged Design Strategy facilitates the natural evolution of programmatic density within the Terminal, which strengthens and develops its connections to the City's many networks. This relationship is reciprocal and underlines the Terminal's role as a hub within the staged plan. It provides an experience rich, programme dense space within the community, spurring change for the years to come.

The diagram opposite illustrates both programmatic similarities at different scales and the existing and future collaborative alliances between different programmes (Figure 5.1). These alliances are crucial for a programmatically complex design to function. They can lead to shared funding between programmes, cross area expertise, as well as the creation of important relationships between the private and public sector.

# Recycling & Re-Use Network



98



# Programme Function

## Community Network Design

### Recycling & Re-Use

#### Flows

- Block Material Flow
- Community Material Flow
- Regional Material Flow

#### Production/Distribution

- Regional Distribution/Collection Location
- Regional Collection Location
- Block Distribution Point
- Local Collection Point

#### Land/Building Use

- Housing to be de-constructed
- Recycling Locations

#### Land Divisions

- Lot Division
- NYCT Site

#### Important Places

- 1 R & R Salvage
- 2 Hannah Recycling
- 3 Queen City Recycling

The Recycling and Re-Use Programme integrates the deconstruction of building fabric and recycling of materials collected (Figure 5.2). The city’s existing “5 in 5” *Demolition Plan*, addresses the problem of vacant structures within the city, by demolishing 5000 structures in 5 years<sup>1</sup>. The deconstruction of the Broadway and Fillmore neighbourhood will incorporate this plan in order to share funding.

During the staged design process buildings are identified to be deconstructed. They will be deconstructed primarily by hand in order to maintain materials which can be reused by other projects. These materials will be sorted and distributed to appropriate bins at **Block Distribution Points**. When every distribution point on a block has reached its capacity, the bins will be collected by small trucks and moved to a **Local Collection Point** at the end of a block and on a main vehicular artery. The bins will be sorted again, in order to place similar materials together. The sorted bins will then be collected by trucks and taken to the site, a **Regional Distribution/Collection Location**.

The material that is received at the Terminal is then distributed to appropriate areas according to its type (Figure 5.3-5.5). Raw materials will be distributed by train to **Regional Collection Locations**, which have the ability to process them. Architectural finishes or salvage will be restored and cleaned to be sold at the Terminal’s Salvage Shop. Money made from the salvage business will go towards housing residents who have been displaced due to the deconstruction process.

The deconstruction and recycling processes will be integrated with an existing programme known as *Buffalo Re-Use*. The organization seeks to create community and economic development through green building deconstruction and provides job training and educational opportunities to community members<sup>2</sup>. Through this integration existing funding and affiliations with organizations will be kept and strengthened, emphasizing an importance not only of strong physical networks, but also of strong community .



1 Penksa, Janet. “Mayor Brown’s ‘5 in 5’ Demolition Plan” *Moving Buffalo Forward: Policy Briefs from the Brown Administration* Vol.1., No.1. (August 2007)

2 <http://www.buffaloreuse.org/About/Mission>

5.2 Recycling & Re-Use: Networks (left)

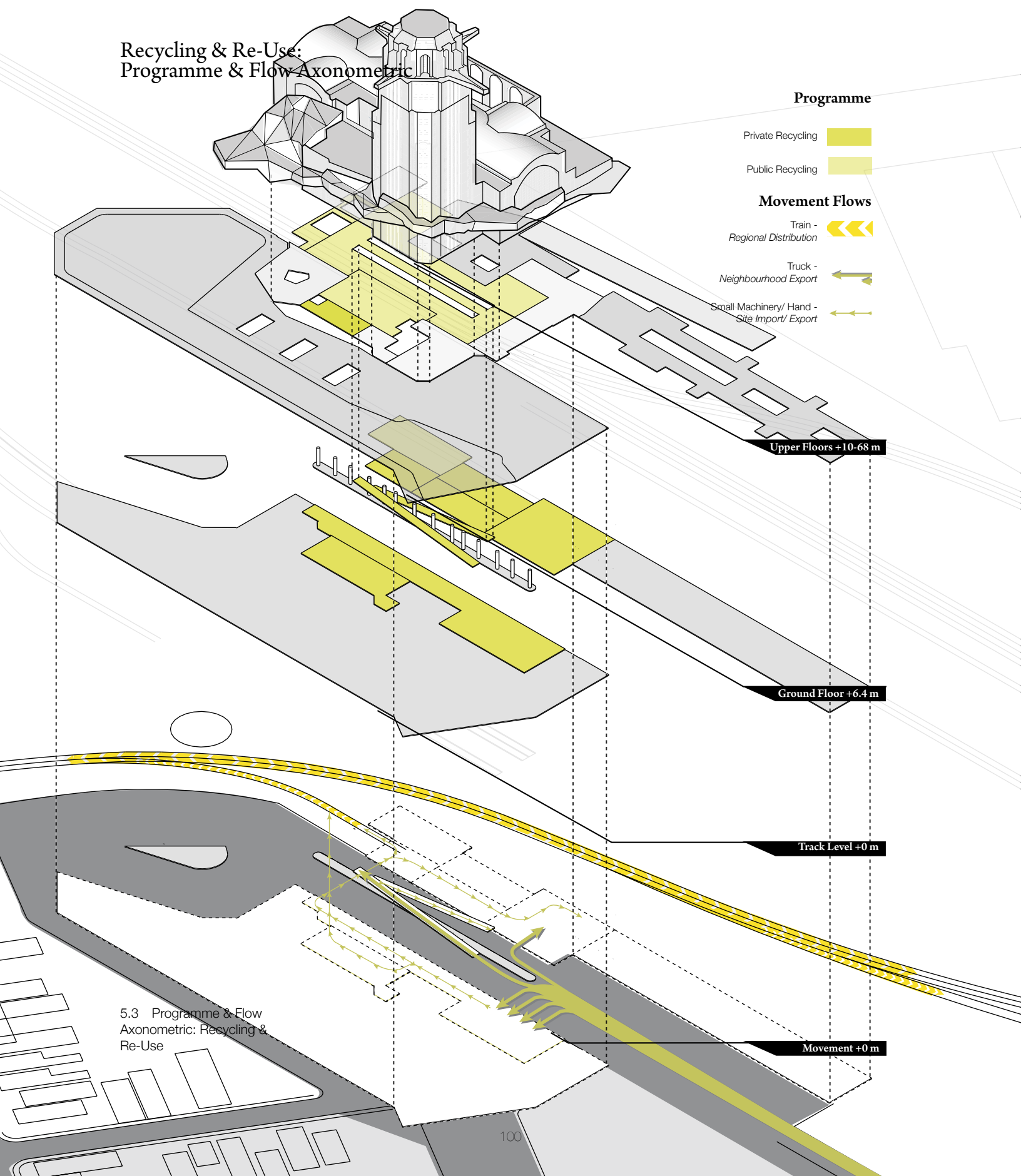
# Recycling & Re-Use: Programme & Flow Axonometric

## Programme

- Private Recycling 
- Public Recycling 

## Movement Flows

- Train - Regional Distribution 
- Truck - Neighbourhood Export 
- Small Machinery/ Hand - Site Import/ Export 



Upper Floors +10-68 m

Ground Floor +6.4 m

Track Level +0 m

Movement +0 m

5.3 Programme & Flow  
Axonometric: Recycling &  
Re-Use



# Programme Function

## Building Design

### Recycling & Re-Use

#### Recycling Observation

Open to the recycling floor below. Visitors can observe unloading, sorting and distribution of recyclable materials.

#### Central Hall

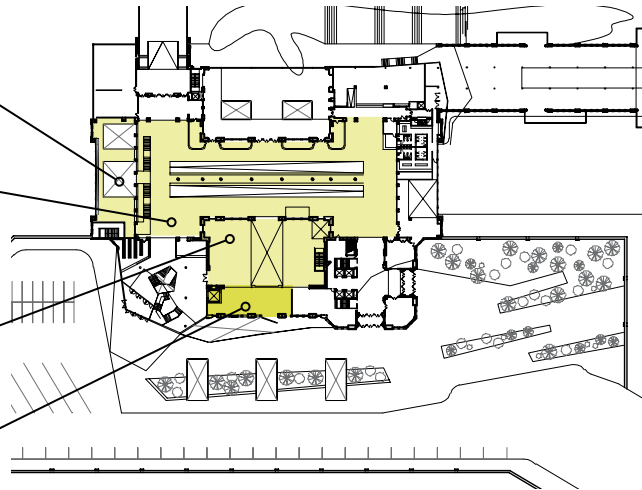
Used for a variety of different programmes, the Central Hall has two large ramps with access to the recycling floor allowing for easy movement of goods to be sold at weekly Markets or at the Restoration Shop.

#### Salvage Shop

A store in which restored architectural salvage is sold. The space is shared with the Gallery Shop.

#### Restoration

A workshop space where architectural salvage is restored to be sold. The space has a direct connect to loading below.



5.4 Ground Floor Plan  
1:2000

#### Education Observation/Classroom

Teaching facility where students can observe the recycling process as well as participate in hands on activities.

#### Regional Export

Raw Materials can be transferred to railcars for export to regional manufactures who can refine the materials into usable products.

#### Sorting of Raw Materials

Indoor/Outdoor Area where machine sorting can take place.

#### Raw Material Storage

Storage area for materials that will be exported.

#### Material Sorting

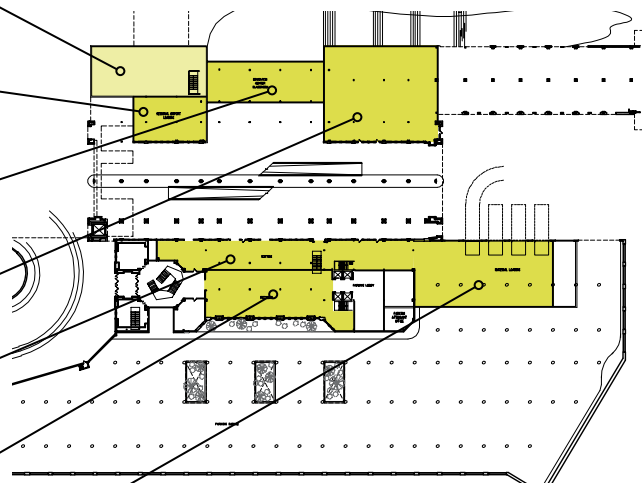
Raw material are separated from architectural elements.

#### Material Cleaning

Architectural elements are cleaned and sorted to be sent to Restoration.

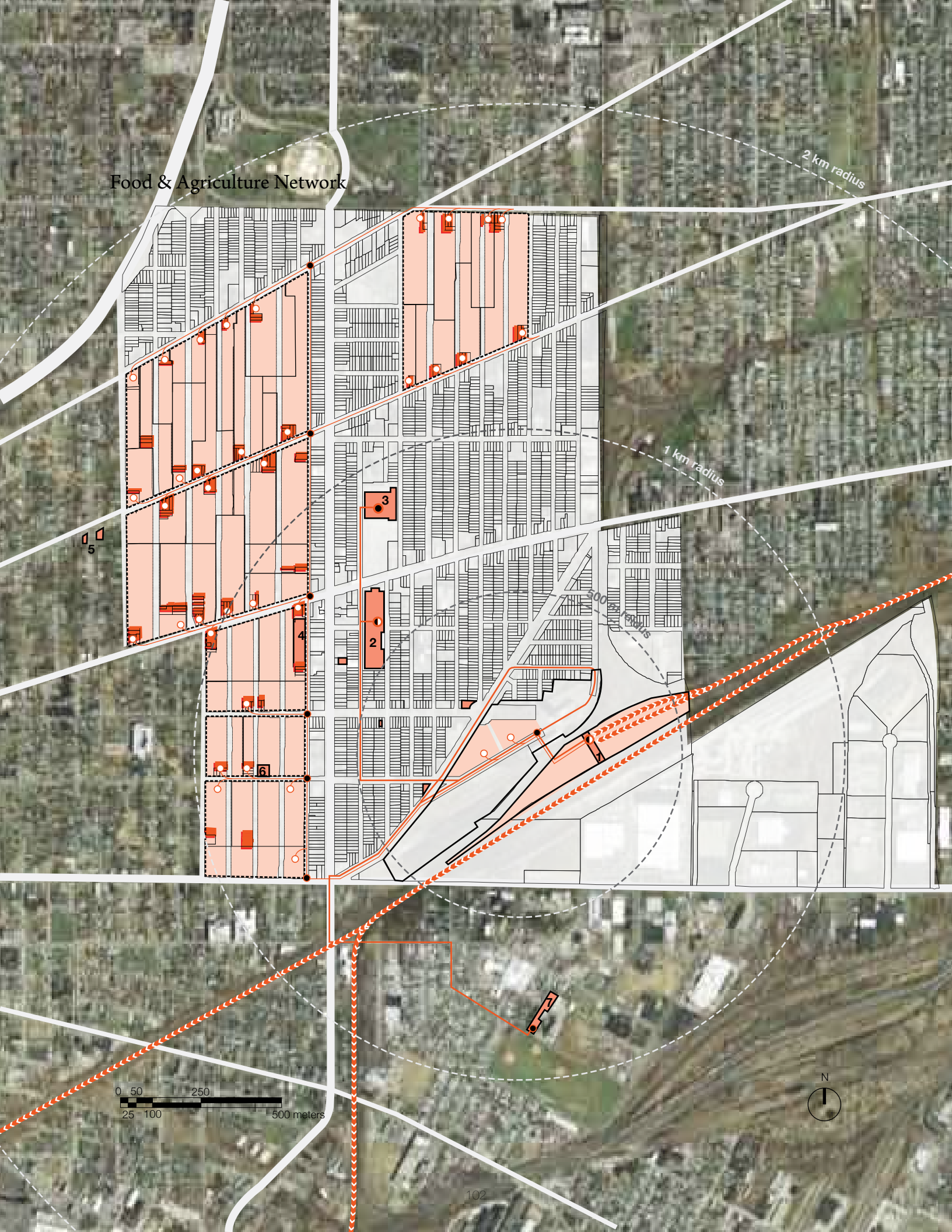
#### Loading

Materials collected from demolished houses are trucked to one of four loading docks.



5.5 Track Level Plan  
1:2000

# Food & Agriculture Network



2 km radius

1 km radius

500 m radius

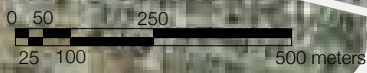
5

3

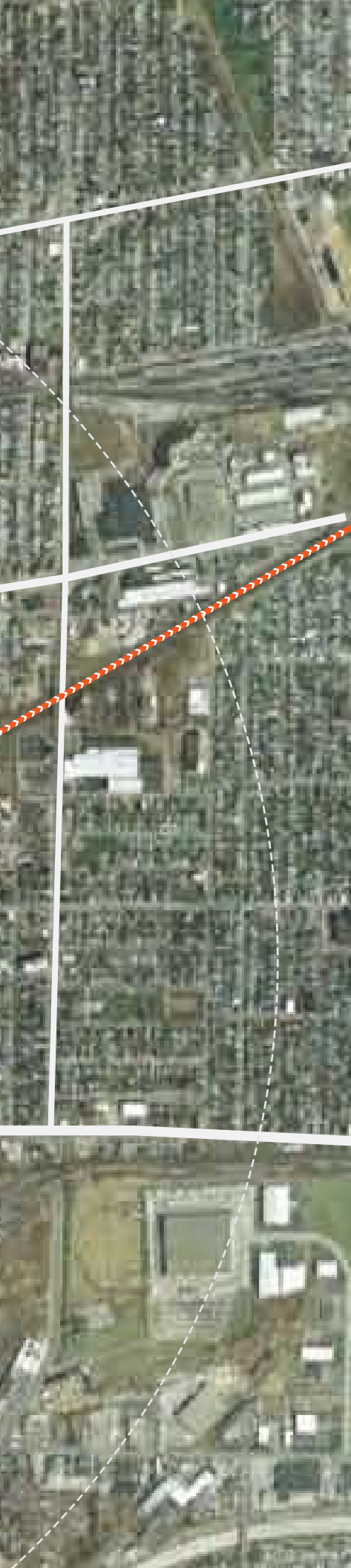
2

4

6







# Programme Function Community Network Design Food & Agriculture



## Flows

-  Local Flow
-  Community Flow
-  Regional Flow

## Production/Distribution

-  Regional Distribution/ Production Location
-  Regional Distribution Location
-  Local Production Location
-  Local Distribution Location

## Land/Building Use

-  Existing Important Place
-  Homestead Land
-  Homestead Buildings

## Land Divisions

-  Homestead Zone
-  Homestead Division
-  NYCT Site

## Important Places

- 1 New Market
- 2 Broadway Market
- 3 Tops Market
- 4 Wilson Street Farm
- 5 Grassroots Gardens
- 6 Wardynski Meats
- 7 Food Bank of WNY

Through the deconstruction process a vast area of land will be cleared. In some cases the empty land will be used for agricultural purposes (Figure 5.6). The land will be divided into small homestead farms, which can be managed by one to three households. A history of food production and distribution within the city and neighbourhood already exists. The *Broadway Market* located in the heart of the neighbourhood, has been in operation since 1888<sup>3</sup>. Open year-round, it helps to support local Western New York farms and food production businesses.

The food produced on the homesteads or **Local Production Locations** will be used to feed the families which manage them. All food production will be organic protecting the local environment and providing healthy and fresh food options for the community. Excess food will be trucked to **Local Distribution Locations** where it is sorted and taken to the site. Food produced on a local level by organizations such as *Grassroots Gardens* or *The Wilson Street Farm* will also be sorted at **Local Distribution Locations**. The food is then sold at the market or distributed to other **Regional Distribution Locations**, such as the *Food Bank of Western New York*.

The site acts as both a **Regional Distribution and Production Location**. Food collected on-site, from the Homesteads and from regional farms is brought to the Terminal for sorting, and then sold at the Market (Figure 5.8). The food is distributed by train (**Regional Flow**) or truck (**Community Flow**) to other **Regional Distribution Locations**. These Regional Distribution locations included other farmers markets, supermarkets or food banks.

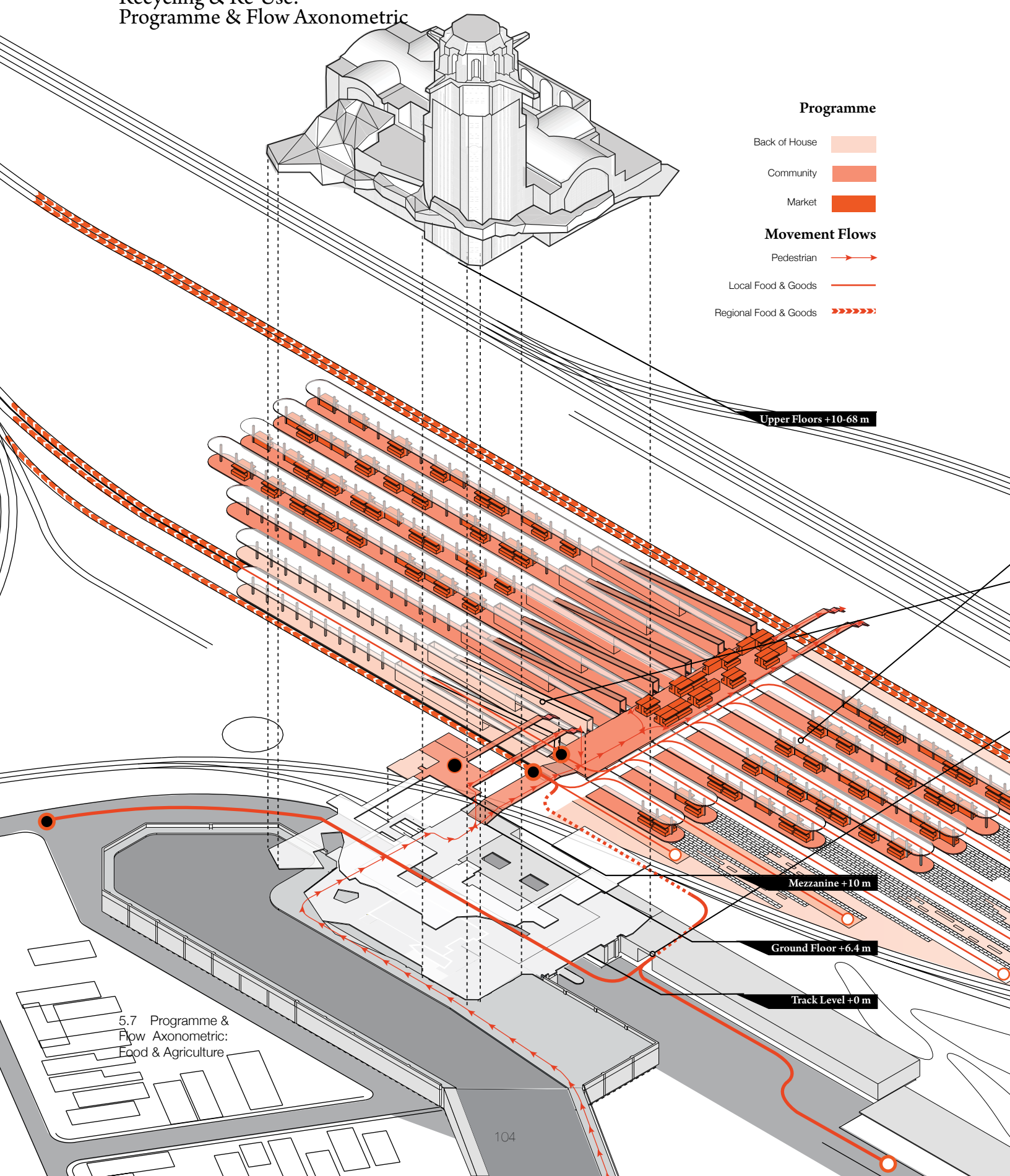
The food and agriculture network utilizes existing grassroots food production organizations and the neighbourhood's rich history of food distribution, to develop a new industry of organic urban farming. It integrates the Terminal building as a new food terminal and market for the area, making it an integral node within the network.

<sup>3</sup> "The History of the Broadway Market"  
[http://broadwaymarket.org/?page\\_id=2](http://broadwaymarket.org/?page_id=2)

5.6 Food & Agriculture: Networks (left)



# Recycling & Re-Use: Programme & Flow Axonometric



## Programme

- Back of House
- Community
- Market

## Movement Flows

- Pedestrian
- Local Food & Goods
- Regional Food & Goods

Upper Floors +10-68 m

Mezzanine +10 m

Ground Floor +6.4 m

Track Level +0 m

5.7 Programme &  
Flow Axonometric:  
Food & Agriculture

# Programme Function

## Building Design

### Recycling & Re-Use

#### **Community Kitchen**

Harvested food is used in the kitchen, where community members can learn culinary skills. The Kitchen also doubles as a catering space, enabling the Market to be used for events, an additional source of revenue.

#### **All Year Market**

The market builds upon the Broadway Market's success. Selling locally grown goods to area residents and visitors.

#### **Market Stalls**

Stalls built from salvaged materials are sold or long term leased to vendors who sell food products and a variety of "homegrown" goods.

#### **Seasonal Track Level Market**

Market stalls are open from late spring to late fall - selling fresh goods harvested from the track level food plots and other plots on site.

#### **Regional Distribution**

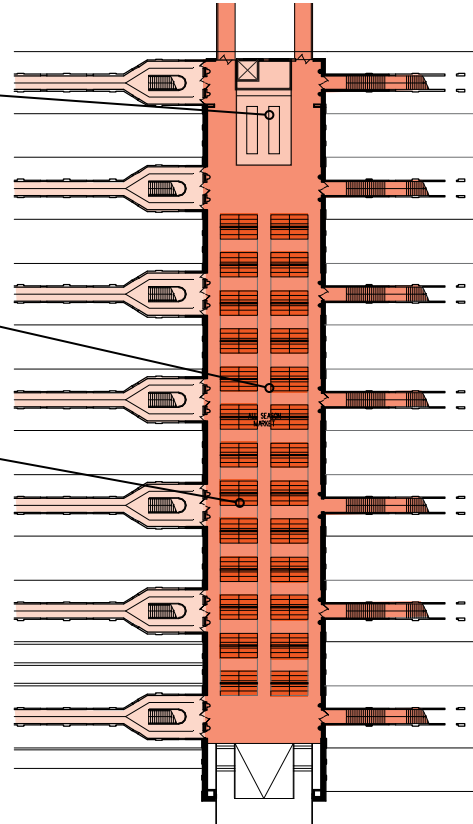
New Tracks added to platforms at the east end of the site, allowing for food from regional farms to be brought in by train, and food from the community to be distributed regionally.

#### **Collection/Distribution Point**

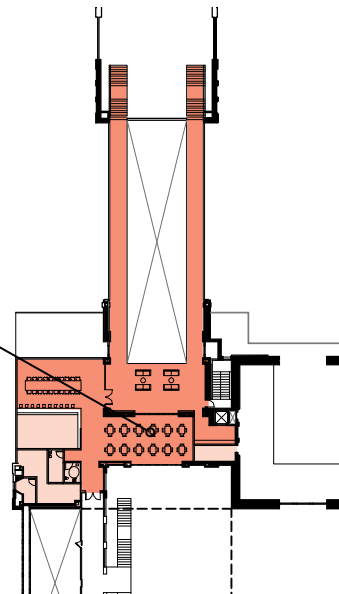
Agricultural goods are sorted for distribution on site or regionally.

#### **Terminal Restaurant**

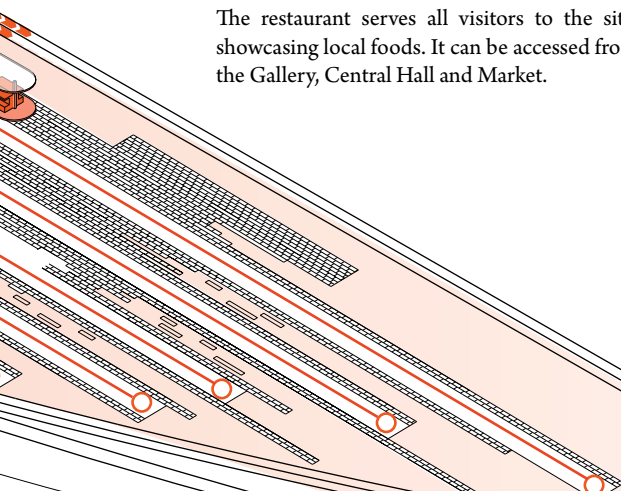
The restaurant serves all visitors to the site, showcasing local foods. It can be accessed from the Gallery, Central Hall and Market.



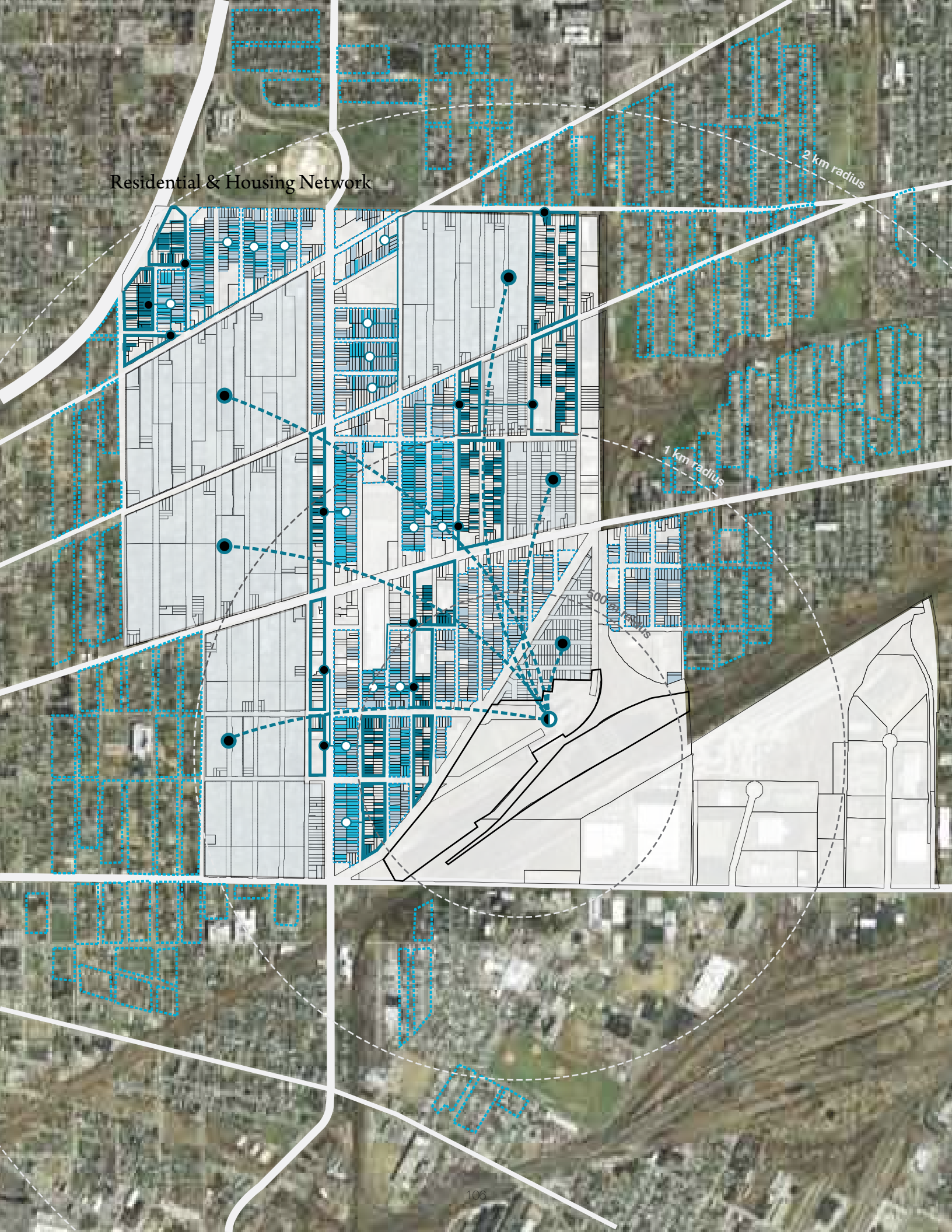
5.8 Market Detail Plan  
1:1000



5.9 Restaurant Detail Plan  
1:1000



Residential & Housing Network



2 km radius

1 km radius

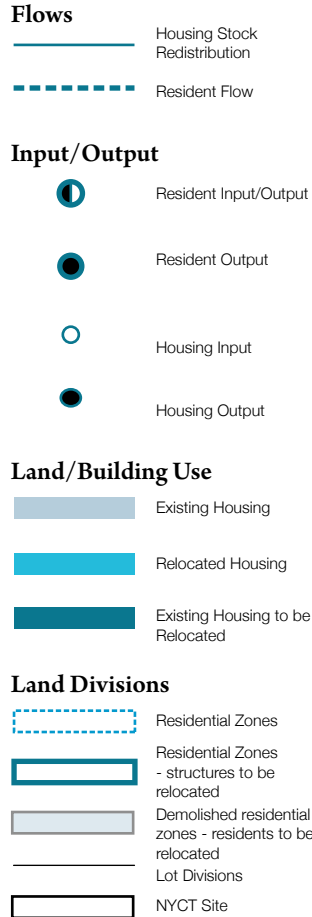
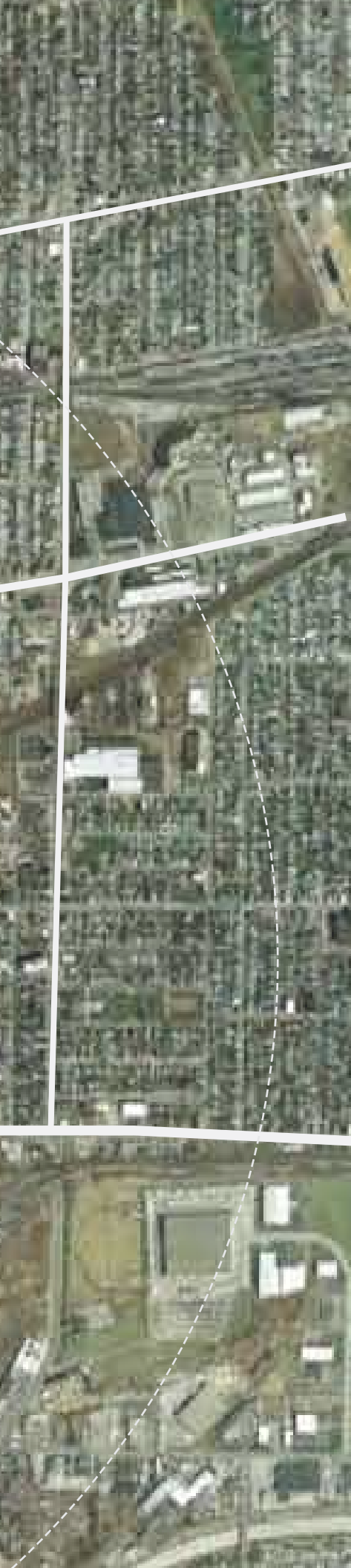
500m radius



# Programme Function

## Community Network Design

### Residential & Housing



The residential and housing component of the programme focuses on consolidating housing stock to create dense residential areas within the neighbourhood and also relocating residents who have been dislocated either to other houses within the neighbourhood or to residential floors within the Tower (Figure 5.10).

Approximately 250 residents will be relocated (**Residence Output**) due to deconstruction.

Two distinct residential types are provided to house the relocated residents. The first type, relocates existing homes in good condition. These homes will be moved (**Housing Output**) to new locations (**Housing Input**). The movement of the homes addresses a critical problem facing the neighbourhood: sparse housing density created by abandonment and neglect which has led to dangerous and unpleasant living environments<sup>4</sup>. The creation of smaller yet dense residential areas generates a stronger feeling of community and safety.

The second residential type is the residential Tower floors. The Tower will act as a **Resident Input/Output** location, housing some residences of the neighbourhood over the long term, while others may reside here only for a short stay while their homes are relocated (Figure 5.11). The open floor plan of the Tower allows for residences to subdivide floors in a variety of different manners. A traditional approach may be taken by long-term residences to divide floors into apartments, six one bedroom apartments fit on one floor (Figure 5.12). Other residences may make larger subdivisions to incorporate live/work spaces where general amenities can be shared (Figure 5.13). Finally, floor plates may be left entirely open for short-term residences, creating temporary divisions for privacy and using general amenities located in the Terminal building for their other needs (Figure 5.14).

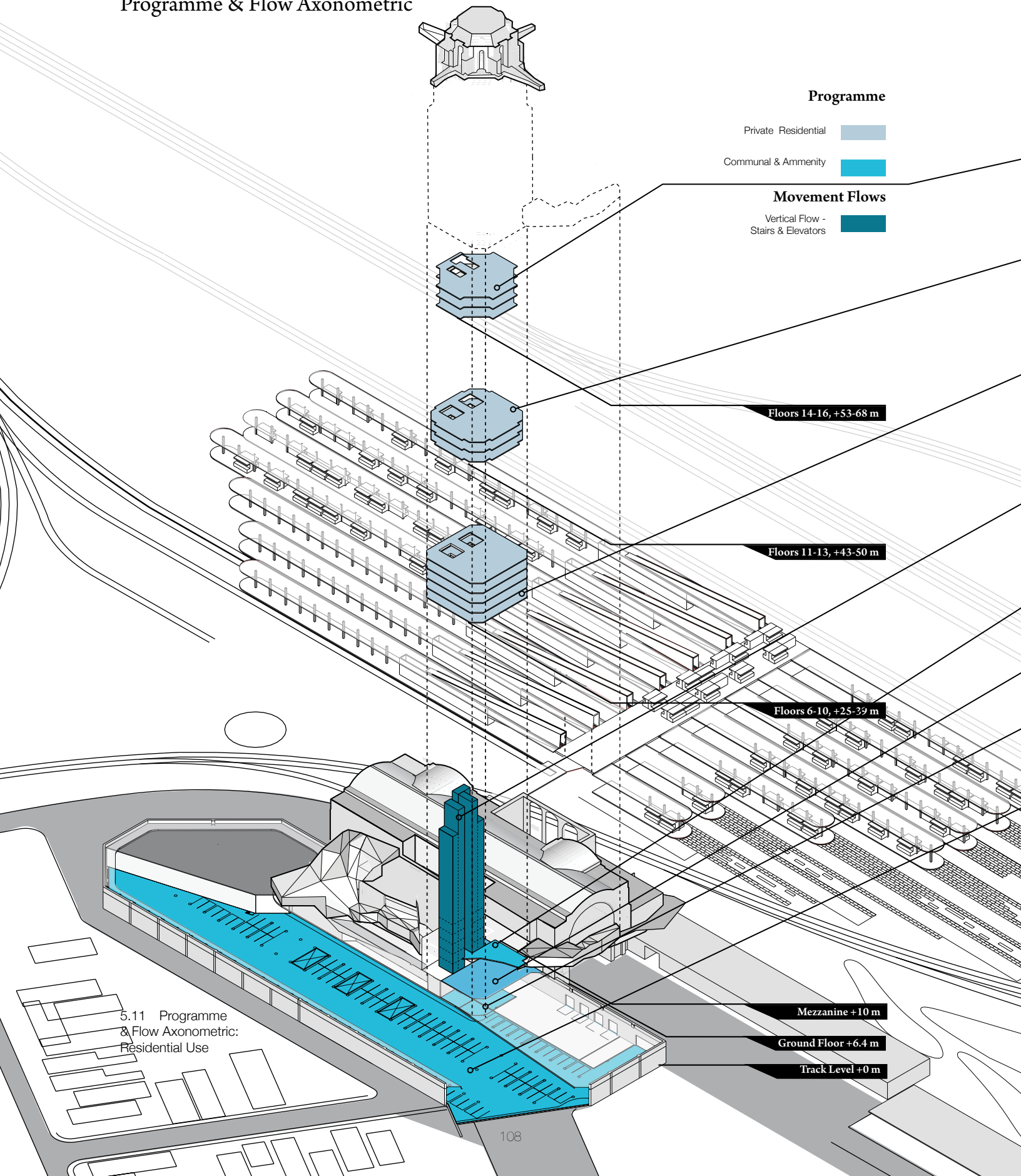
The two new housing types recognize the importance of community; in both cases creating denser living environments to emphasize interaction among neighbours and strengthening of community ties.

5.10 Residential & Housing: Network (left)

<sup>4</sup> GNPA, "East Buffalo Neighbors' Planning Alliance Neighborhood Plan" (Prepared as a Component of The Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2007). Sec 3, 18.



# Residential: Programme & Flow Axonometric



## Programme

- Private Residential
- Communal & Amenity

## Movement Flows

- Vertical Flow - Stairs & Elevators

Floors 14-16, +53-68 m

Floors 11-13, +43-50 m

Floors 6-10, +25-39 m

Mezzanine +10 m

Ground Floor +6.4 m

Track Level +0 m

5.11 Programme & Flow Axonometric: Residential Use

# Programme Function

## Building Design

### Residential Floor Plans

#### Tower Residence: Floor 16

Open floor plates allow for varied plan layouts according to the needs of different residences. The core provides circulation and services.

#### Tower Residence: Floor 13

Floors can be divided into large live/work and shared living spaces to optimize space and take advantage of the communal amenities on site.

#### Tower Residence: Floor 6

Traditional apartments at a maximum of six one bedrooms per floor are also an option .

#### Vertical Circulation Cores

Four elevators and two exit stairs serve as vertical circulation for the tower. All elevators have key pass access to residential floors.

#### Residence Upper Lobby

The upper lobby create a connection between residences and the community centre/gym.

#### Residence Ground Level Lobby

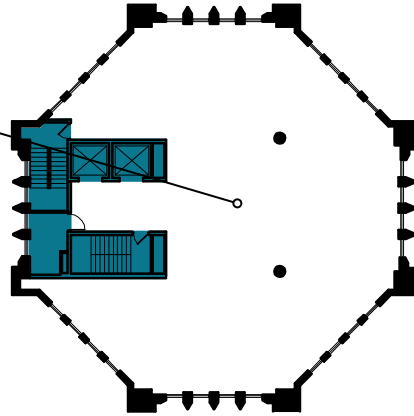
The ground level lobby is the main entrance for residents who don't own a car.

#### Residence Parking Lobby

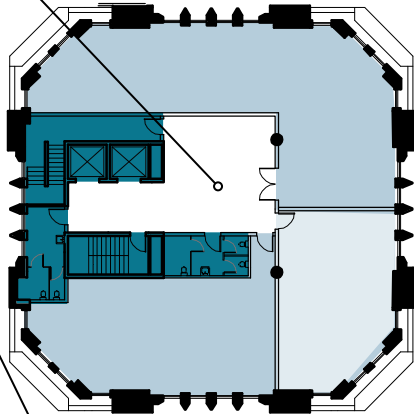
The Parking Lobby provides access to elevator cores and exit stairs for residences traveling by car or public transit.

#### Residence Parking

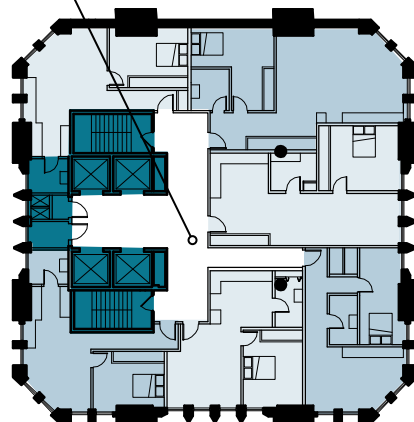
Parking for Tower Residences is shared with a public lot intended for visitors who plan to stay for the day.



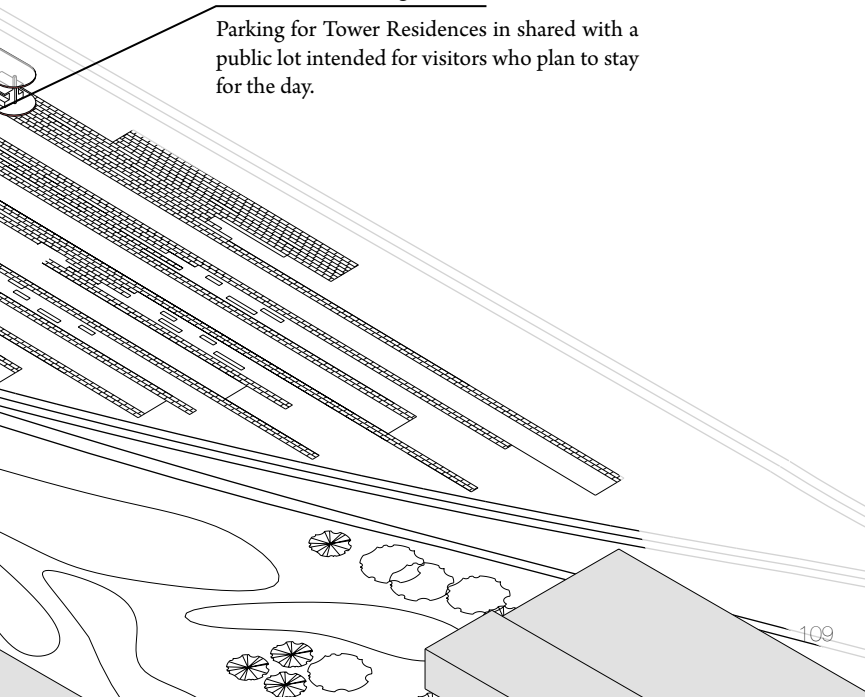
5.14 16th Floor Plan  
1:350



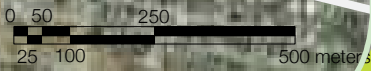
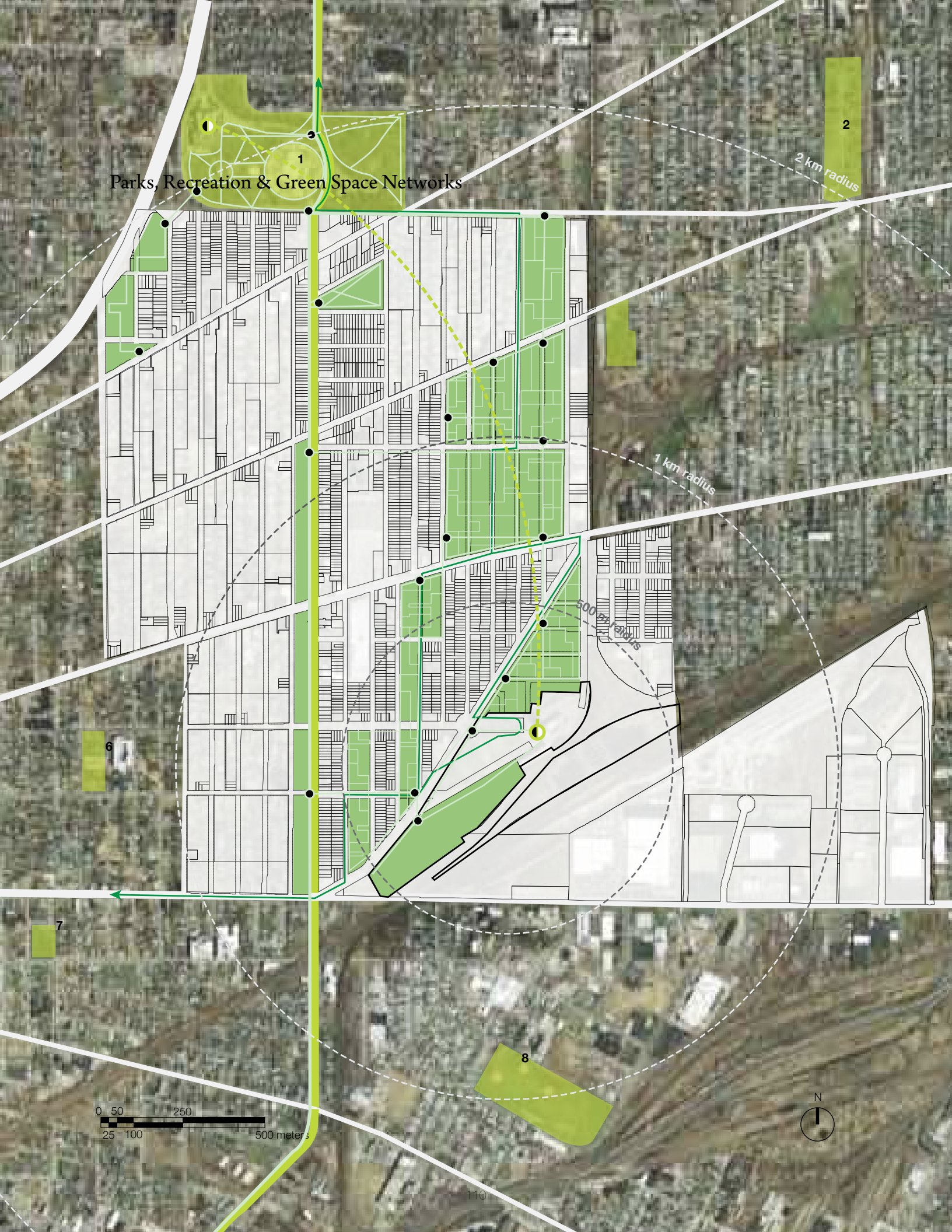
5.13 13th Floor Plan  
1:350



5.12 6th Floor Plan  
1:350



# Parks, Recreation & Green Space Networks







# Programme Function Community Network Design

## Parks, Recreation & Green Space

The park system in Buffalo has a rich history, designed by the landscape architect Frederick Law Olmsted during the late 1800s. Its seven parks and multiple parkways constitute 1200 acres of the Buffalo park system<sup>5</sup>. The new park network integrates this historic system with new parks and recreational facilities (Figure 5.15).

The parks that anchor the parkway on either end of the site are, *Humboldt Park (Martin Luther King Jr. Park)* an Olmsted designed park located to the north of the neighbourhood and the Terminal site located at the south end. These act as **System Entry/Exit Points**, having a variety of outdoor, recreation and cultural programme in one location they are gateways to the neighbourhood parks. The parks primary circulation systems are **walkways** and **bike paths**. **Bike paths** connect visitors to the larger park system and **walkways** allow visitors to meander through the parks themselves. Vehicular visitors to the parks are encouraged to use parking at the **System Entry/Exit Points**. The parkway runs alongside the linear park on Fillmore Avenue, providing motorists and public transit users views of the park system while moving through the neighbourhood.

**Neighbourhood Park Entry Points** are located at the edge of the parks which are based upon a modified city grid. These entry points sit at the end of existing roads that have been converted to pedestrian roads or **Primary Park Walkways**. Smaller trails and gravel pathways navigate the parks and separate different areas of planting. These paths or **Secondary Park Walkways** are laid out along existing lot divisions.



The park system also integrates the Terminal site itself (Figure 5.16). Walled gardens are created from the shells of buildings on the site and a large berm allows visitors to navigate outdoor green and recreational areas of the building even when it is closed (Figure 5.17). Terraces and outdoor Pools allow for seasonal recreation activity.

The new park system builds upon that of the existing system, strengthening its success and building on its tradition of combining park sites with those of important cultural buildings.

### Flows

-  Improved Parkway
-  Organization Affiliation
-  Bike Path
-  Primary Park Walkways
-  Secondary Park Walkways



### Input/Output

-  System Entry/Exit Point
-  Neighbourhood Park Entry Point

### Land/Building Use

-  Existing Green Space & Parks
-  New Parks

### Land Divisions

-  Land Division
-  NYCT Site

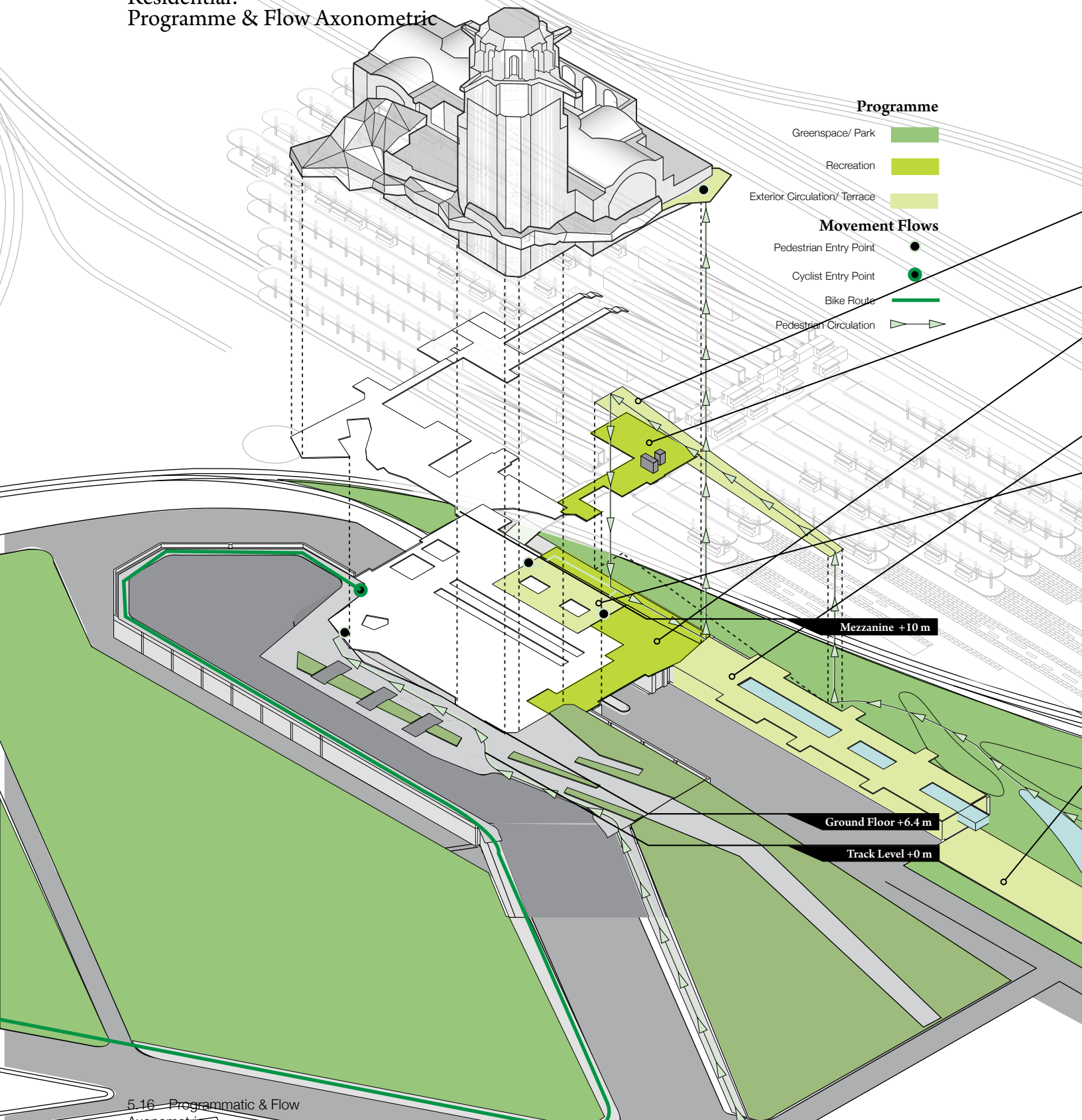
### Important Places

- 1 Humboldt Park
- 2 Concordia Cemetery
- 3 Walden Park
- 4 Scheu Park
- 5 Hennepin Park
- 6 Sperry Park
- 7 YMCA Field
- 8 Dulski Community Centre Playing Fields

5.15 Parks, Recreation & Green Space: Networks (left)

<sup>5</sup> Buffalo Olmsted Parks Conservancy "History" <http://bfloparks.org/index.php/conservancy/History>

# Residential: Programme & Flow Axonometric



## Programme

- Greenspace/ Park
- Recreation
- Exterior Circulation/ Terrace

## Movement Flows

- Pedestrian Entry Point
- Cyclist Entry Point
- Bike Route
- Pedestrian Circulation

Mezzanine +10 m

Ground Floor +6.4 m

Track Level +0 m

**Programme Function**  
Building Design  
Garden Detail Plan

**Exterior Circulation**

An exterior circulation system allows visitors to experience the Terminal's courtyards and Terraces as part of the site.

**Community Recreation**

Including a gym, change rooms and classrooms the community recreation centre can be used by Tower residents and Buffalo citizens.

**Community Pools & Patio**

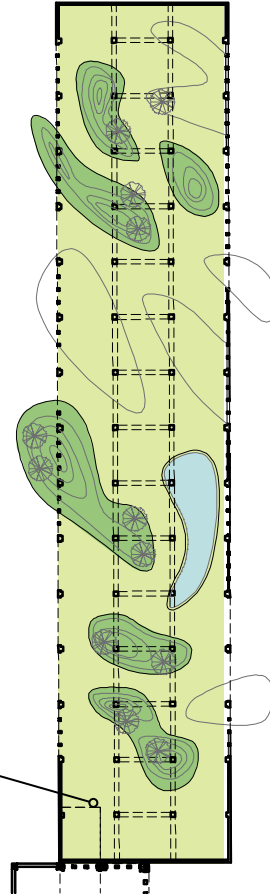
The community pools provide a large outdoor recreational space for both swimming, lounging and skating in the winter.

**Terminal Courtyard**

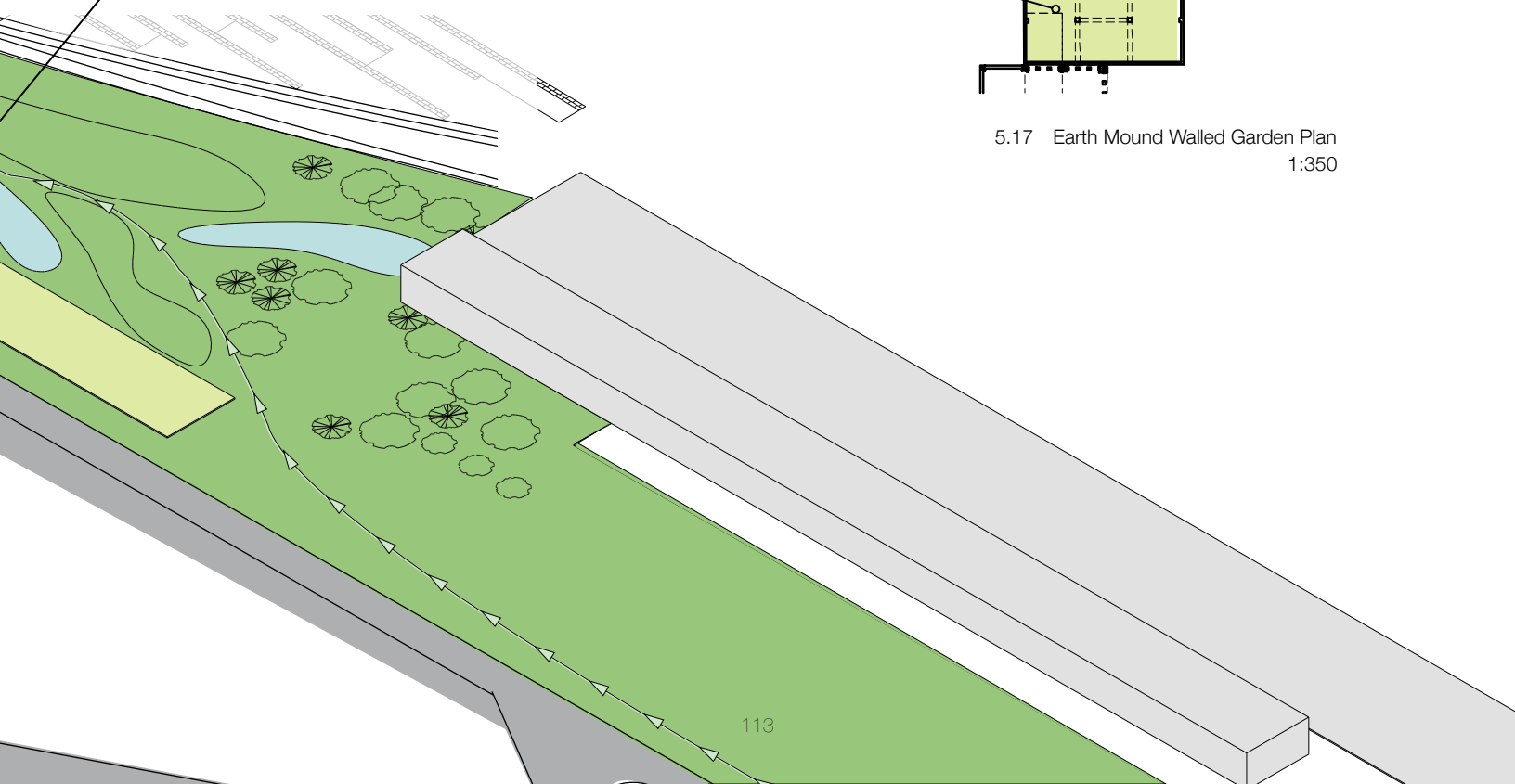
The courtyard occupies the area of the station waiting room. The ceiling, windows and doors have been removed revealing structure and views to the tracks and gardens below. New openings in the floor allow natural daylight to the spaces below and provide visitors with views to the recycling activities.

**Earth Mound Walled Garden**

Located in the shell of the old post office sorting factory. The Earth Mound Garden combines landscape and architecture, acting as a gateway to the outdoor areas of the site.

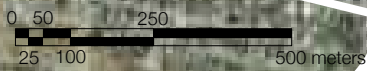


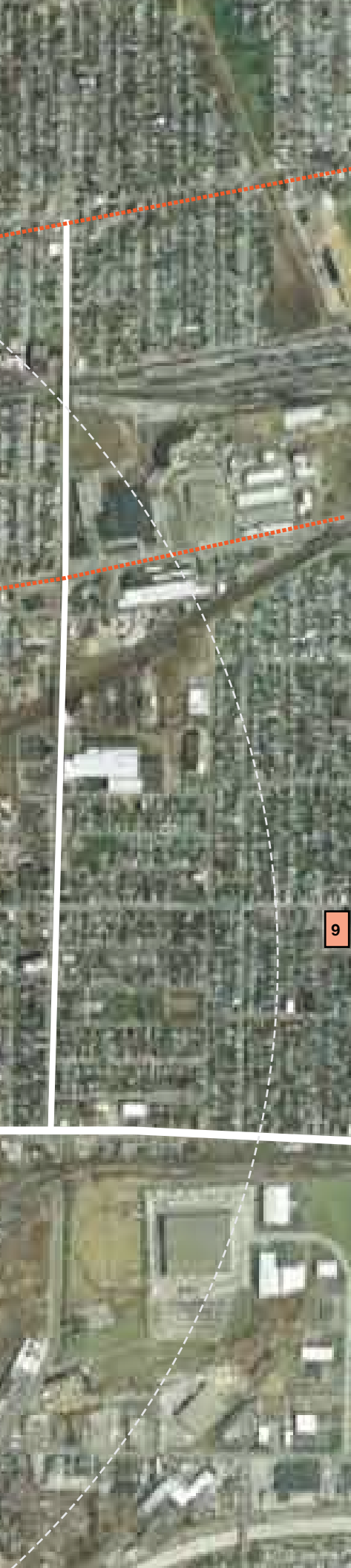
5.17 Earth Mound Walled Garden Plan  
1:350





# Public Building Networks





## Programme Function Community Network Design

### Urban Artifacts : Commercial, Cultural and Community

There are a series of networks which connect the City's urban artifacts (Figure 5.18).

**Commercial Streets**, East-West streets connect the site to the City's downtown core and its surrounding suburbs. These streets are also bus routes, which link the site to regional buses and trains. The high volume of traffic along these routes make them ideal for public building development.

The Terminal is a mainly public building. The most prominent and physically noticeable change made to the building is the Gallery component. The gallery form is angular and wraps itself around the existing structure (Figure 5.19) The choice to include a gallery within the building instead of some other cultural competent is based upon Buffalo's long standing appreciation of the arts. It is already home to the *Albright-Knox Gallery*, one of the oldest galleries in the country and home to one of the world's most extraordinary art collection<sup>6</sup>. The *Albright-Knox Gallery* is visited not only by Buffalo citizens but by people from around the world. In order to capitalize upon this existing network of visitors , an art gallery is a logical choice. The Terminal Gallery acts as a satellite gallery to the original *Albright-Knox* but focuses on rotating exhibits of contemporary art.

The gallery also includes educational programmes such as a digital media library and an *Artist-in-Residence Programme (AIR)* (Figure 5.20). *AIR*, an existing programme from the *Albright-Knox Gallery*, focusing on connecting contemporary artists with the community through public art projects<sup>7</sup>.

The networks that connect Buffalo's urban artifacts have survived the city's many challenges . The addition of a new cultural hub and the densification of activity along the east-west streets in the neighbourhood will strengthen this existing network .

6 "History" <http://www.albrightknox.org/about-ak/history/>

7 "Artist-In-Residence Program" <http://www.albrightknox.org/education/artist-in-residence-program/>

#### Flows

..... Commercial Streets

#### Land/Building Use

■ Cultural Community

■ Commercial Buildings

#### Land Divisions

□ Land Division

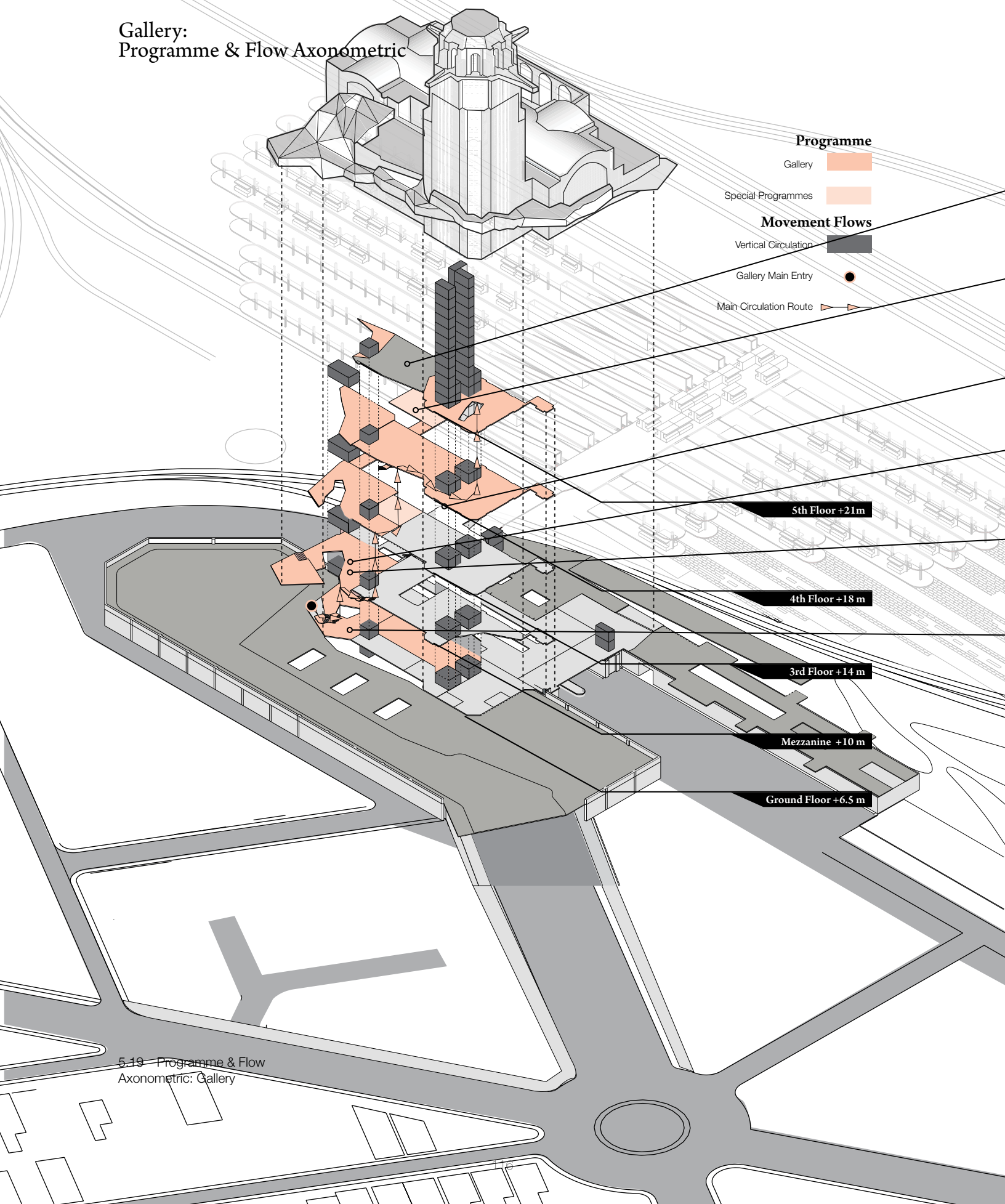
□ NYCT Site

#### Important Places

- 1 Buffalo Science Museum
- 2 Dr Charles R Drew Science Magnet School #90
- 3 Polish Community Center
- 4 Corpus Christie Church
- 5 Buffalo Public School: #31 Harriet Ross Tubman School
- 6 Mickiewicz Library
- 7 St. Stanislaus School & Church
- 9 Buffalo Public School #43
- 11 Dulski Community Centre

5.18 Urban Artifact :  
Network

# Gallery: Programme & Flow Axonometric




## Programme

Gallery 

Special Programmes 

## Movement Flows

Vertical Circulation 

Gallery Main Entry 

Main Circulation Route 

5th Floor +21m

4th Floor +18 m

3rd Floor +14 m

Mezzanine +10 m

Ground Floor +6.5 m

# Programme Function

## Building Design

### Gallery Floor Plans

#### **5th Floor Gallery & Terrace**

The fifth floor of the gallery has access to a roof terrace with views of the surrounding neighbourhood. It is also a display space for rotating sculpture exhibits.

#### **Artist in Residence Studios**

This studio space allows members of the public to interact with the artist in residence by both observing the artist at work and participating in art education programmes.

#### **Digital Media Library**

The library provides computers for public use to browse digital art collects as well for educational use.

#### **Mezzanine & Atrium**

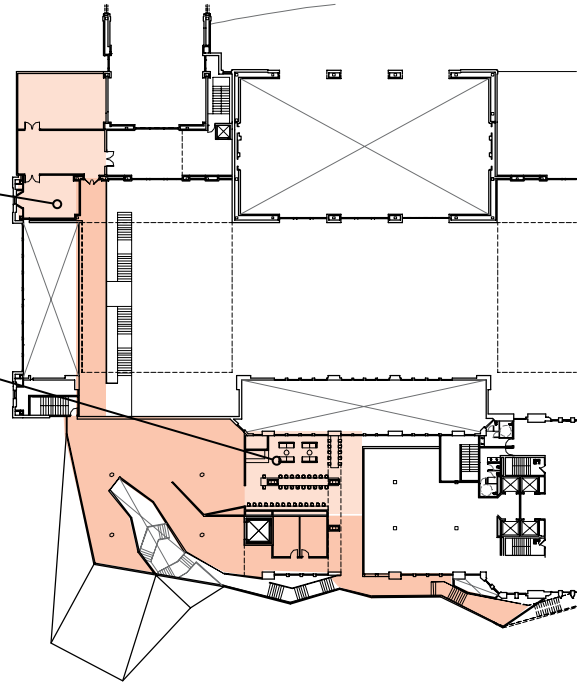
The atrium acts as a circulatory space connecting the mezzanine to the ground and third floor via a feature stair. This mezzanine provides a direct connection from the Gallery to the Terminal Restaurant.

#### **Gallery Theater**

The theater cantilevers over the main entrance of the Terminal. It can be used for a variety of uses including: lectures, events and the presentation video and digital art.

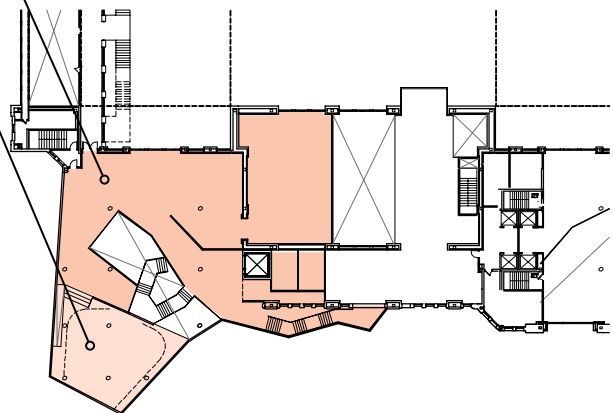
#### **Building & Gallery Entrance**

The relocated main entrance is emphasized by the gallery's cantilevering form creating a protected entry way. It will act as the Terminal's main entry point. At track level it connects to the light rail turn around, as well as at the parking garage and at ground level is situated beside a visitor drop off area and bus parking.



5.20 3rd Floor Plan: Gallery & Artist-in-Residence

1:2000

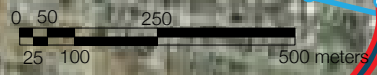
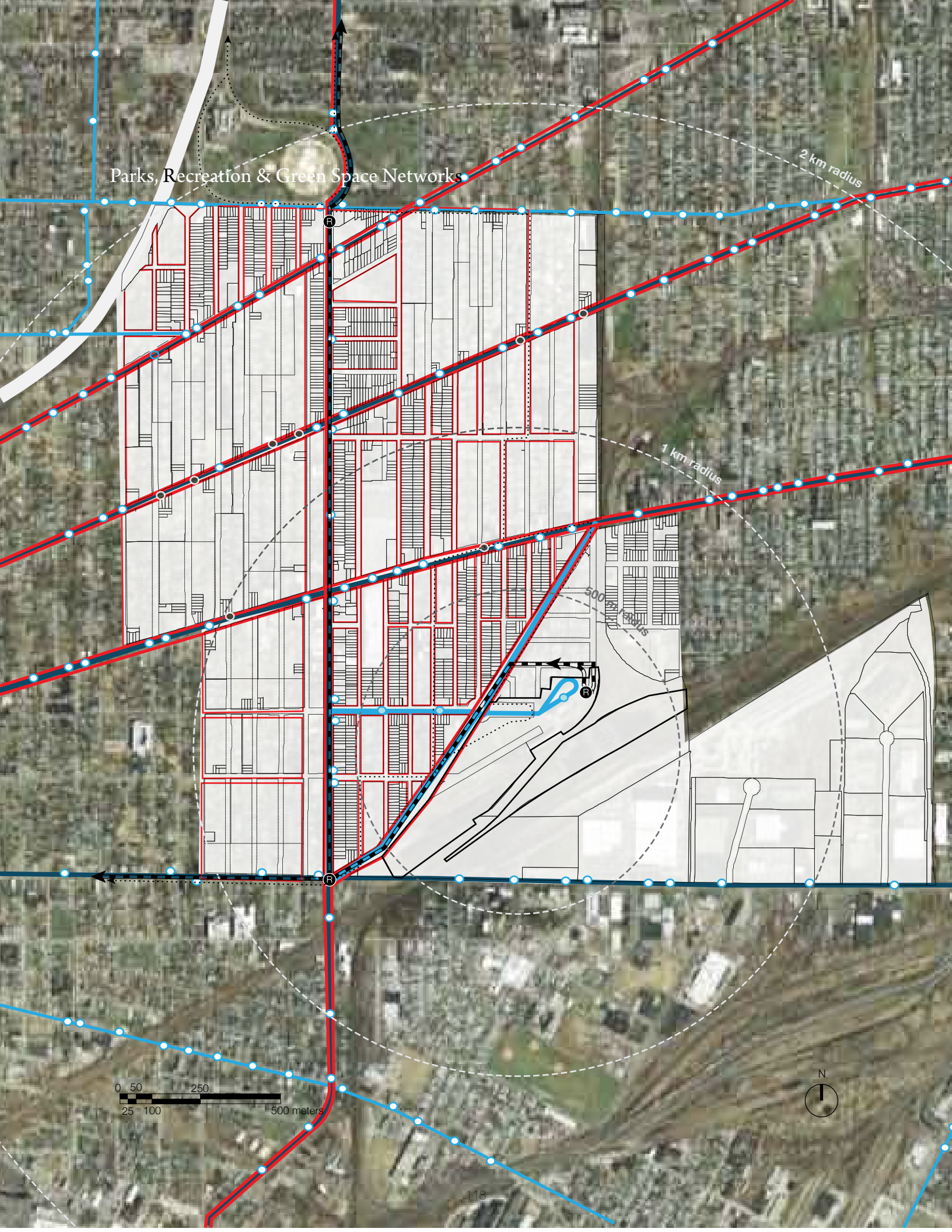


5.21 Mezzanine Plan: Gallery & Theater

1:2000



# Parks, Recreation & Green Space Networks



## Programme Function Community Network Design

### Public Transportation & Vehicular, Bicycle & Pedestrian Circulation

The majority of neighbourhoods in Buffalo are accessible only by **bus routes**. The city also has a **Light Rail Route**, *Buffalo Metro Rail*. It consists of one 10.3 km line that connects the downtown to the *University at Buffalo*. Both systems are managed by the *Niagara Frontier Transit Authority (NFTA)*<sup>8</sup>.

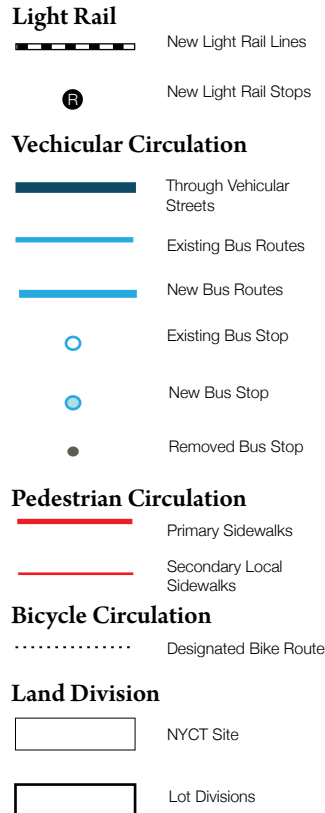
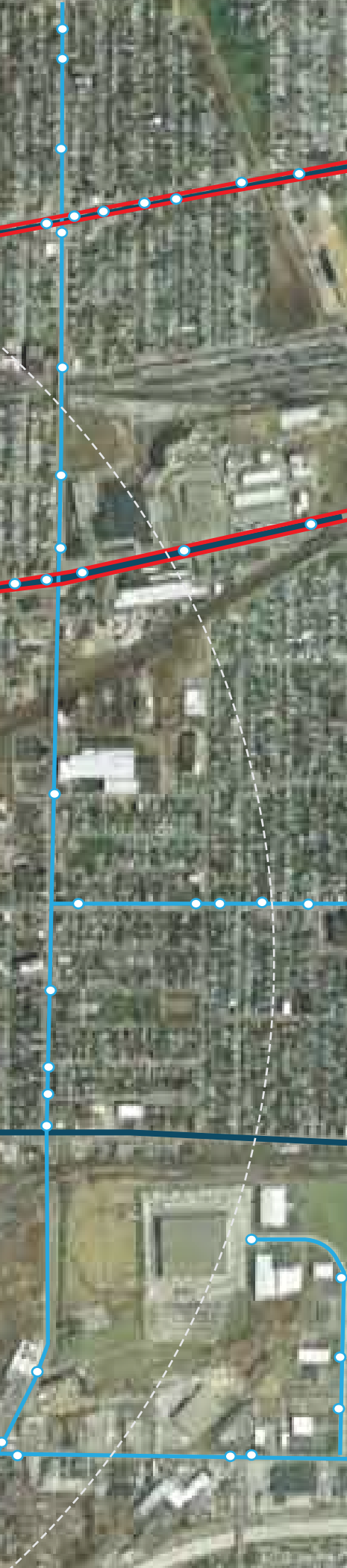
The new transportation network focuses on improving the existing systems of transportation and circulation and expanding the **Light Rail Route** (Figure 5.22).

The **New Light Rail Route** will run along Fillmore Avenue and will connect to the existing route at its north - creating a direct connection to both campuses of the *University at Buffalo*, *The Albright-Knox Gallery* and *Delaware Park*. Fillmore Avenue will be widened in order to accommodate two light rail lines, four lanes of vehicular traffic, **bike routes** and wider **Primary Side Walks**. The **New Light Rail Route** will also have a turn around and station stop within the Terminal building, allowing visitors and Terminal residents to access the light rail directly (Figure 5.23). At the turn around the **New Light Rail Route** follows Memorial Drive to William Street connecting the new route to the downtown *NFTA Metro Center*, the city's bus terminal.

Most of the existing bus routes will be retained. Some stops will be removed to reflect changes in density, while other **New Bus Stops** and **New Bus Routes** will be added. A new bus route will be added along Paderwaski Drive to connect the Terminal.

Pedestrian routes will be improved, widening **Primary Sidewalks** along main arteries and repairing **Secondary Local Sidewalks** on local streets. These sidewalks will also help to define the new block structure.

**Designated Bike Routes** will be added to parkway streets which connect to the Buffalo Park system. Bike routes will also be added throughout the neighbourhood to navigate local parks. Bicycle lockers and change rooms will be added to the Terminal to encourage employees of the Terminal, as well its visitors, to cycle or walk.

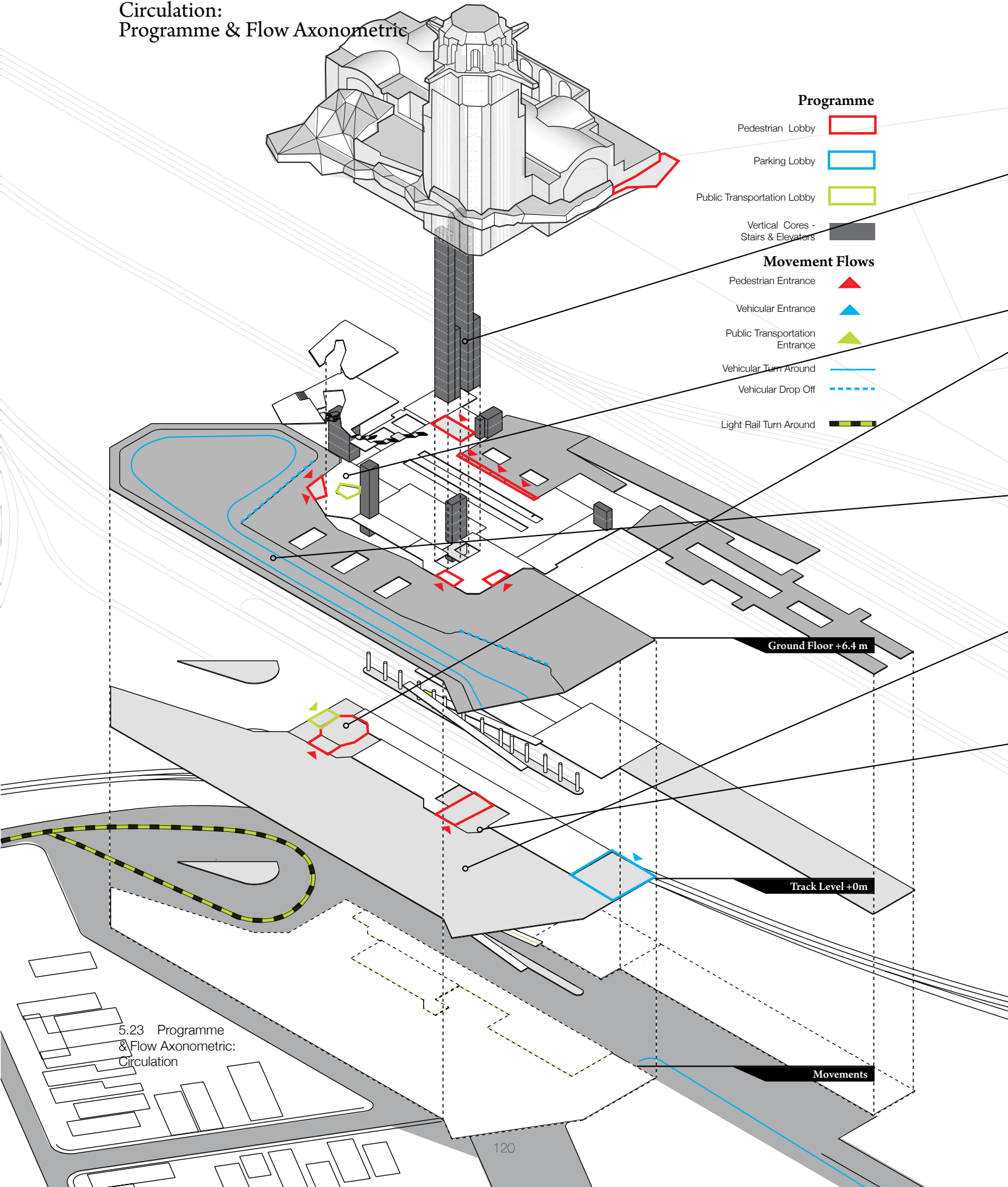


5.22 Transportation and Circulation: Network

<sup>8</sup> "About the NFTA"  
<http://www.nfta.com/metro/about.asp>



# Circulation: Programme & Flow Axonometric



5.23 Programme & Flow Axonometric: Circulation

# Programme Function

## Building Design

### Circulation

#### Vertical circulation

The Terminal's main vertical circulation core is in the tower and consists of four elevators and two exit stairs accessing all seventeen floors. Other exit stair cores and elevators connect specific programme to each other.

#### Public Lobby

The public lobby has entries at two levels, incorporating access to the light rail and parking at track level, as well as bus routes, bike parking and pedestrian routes at ground level. Its feature stair connects the two floors as well as elevator access. The lobby at ground level acts as the entrance to the Terminal Hall and the Gallery and is the primary entrance to the building.

#### Short Term Parking

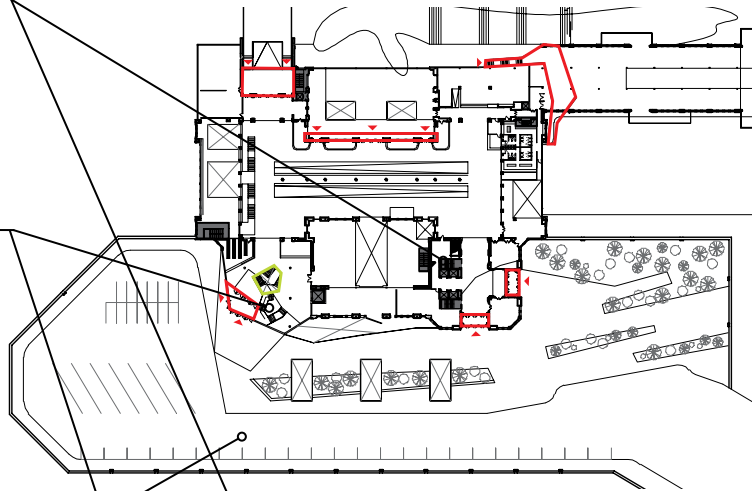
Short term parking is available at ground level. Forty parking spaces are available, as well as six bus parking spaces for Tour Groups.

#### Long Term Parking

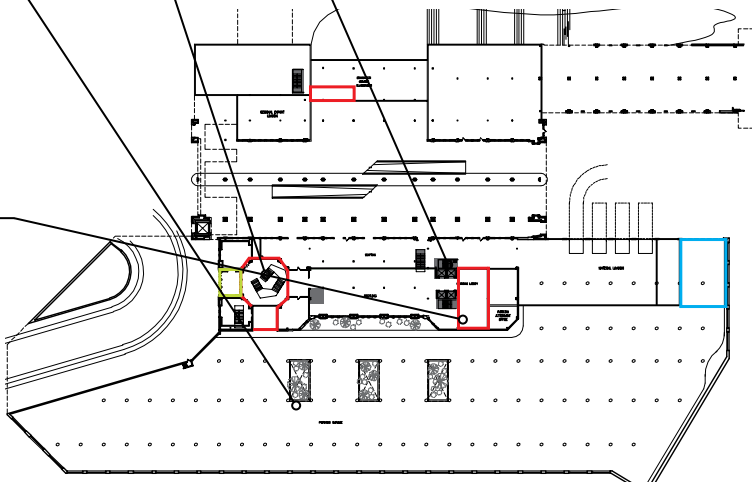
Long term parking is provided at track level for the residents of the Tower as well as long term visitors and employees of the Terminal. A percentage of the parking will be designated for commuters that use the Light Rail or Buses that stop at the Terminal.

#### Residential/ Parking Lobby

The residential and parking lobby is located within the parking lot connecting to the terminal via the main vertical core. The parking attendant's office is located here as well.



5.24 Ground Floor Plan  
1:2000



5.25 Track Level Plan  
1:2000



Part Two  
**Narrative Vignettes**



5.26 De-construction of  
The Broadway & Fillmore  
neighbourhood







## Narrative Vignettes

### Deconstruction of Broadway and Fillmore

The neighbourhood deconstruction process takes place within the second and third stages of design. Community groups and City crews work together to dismantle the neighbourhood's derelict housing.

Deconstructing rather than demolishing these buildings ensures that as many materials as possible can be salvaged and re-used. The materials salvaged from the deconstructed homes is trucked to the Terminal, to be sold as salvage, or recycled and processed into new building materials.

The areas of land that are cleared of housing will be prepared for their future use as parkland or agricultural homesteads.





5.27 View of the Main Hall and Salvage Shop



## Narrative Vignettes

### The Main Hall and Salvage Shop

The Main Hall of the Terminal is transformed in the second stage of the design into a large Salvage Shop and community space.

Historically this hall acted as the primary public space in the Terminal, in the current design it is re-envisioned as a space which gathers both people and materials. The hall is vibrant with activity, materials are delivered from the surrounding neighbourhood by way of ramps connecting to the lower level of the building. As a central space the Hall provides access to the many different programmes in the building: the Gallery, Tower Residences, Market, Restaurant, Community Centre and Recycling areas.

The space also serves as a large multi-purpose hall, with the capability to house large groups for performances, lectures and exhibitions. The Main Hall acts as the heart of the Terminal and the gathering point for all activity.





5.28 View looking east on Broadway showing a Homestead and park land beyond



## Narrative Vignettes

### Urban Homesteads and Parkland

The cleared land created by the deconstruction process is converted into productive landscapes in the third and fourth stages of the design. These productive landscapes are either homestead urban farms or public parkland.

The Homesteads house two to four families in a communal arrangement, on a shared piece of land. The land is owned and cultivated by these families for the purpose of urban farming, a tradition which is developing in the Broadway and Fillmore neighbourhood. The food, plants and materials grown on these farms is used by the families and excess can be sold at the Market. The grid by which the Homesteads are divided, is based upon that of the original housing lots. Access roads and utilities are left in place to allow for future in fill and densification of these areas when necessary.

The public Parkland is designed in the tradition of the City's Olmsted park system. Roadways, bike paths and walkways weave their way through the linear parks based upon the existing grid of the neighbourhood. Large shade trees are planted along main roadways. As the trees grow over the years, they will create lush parkways enjoyed by drivers, cyclists and pedestrians. Low maintenance native plants fill most of the parkland, developing a meadow landscape, providing a habit for local flora and fauna. Select areas will be cultivated as community gardens or outdoor recreational areas. Finally, the design of select areas of the park will change on a yearly basis as part of landscape and public art design competition.





5.29 View of the platform market stalls and landscaped jetties





## Narrative Vignettes

### The Market

The Market is located in the former Passenger Concourse and on the train platforms of the Terminal. Construction of the Market is completed in the third and fourth stages of the design.

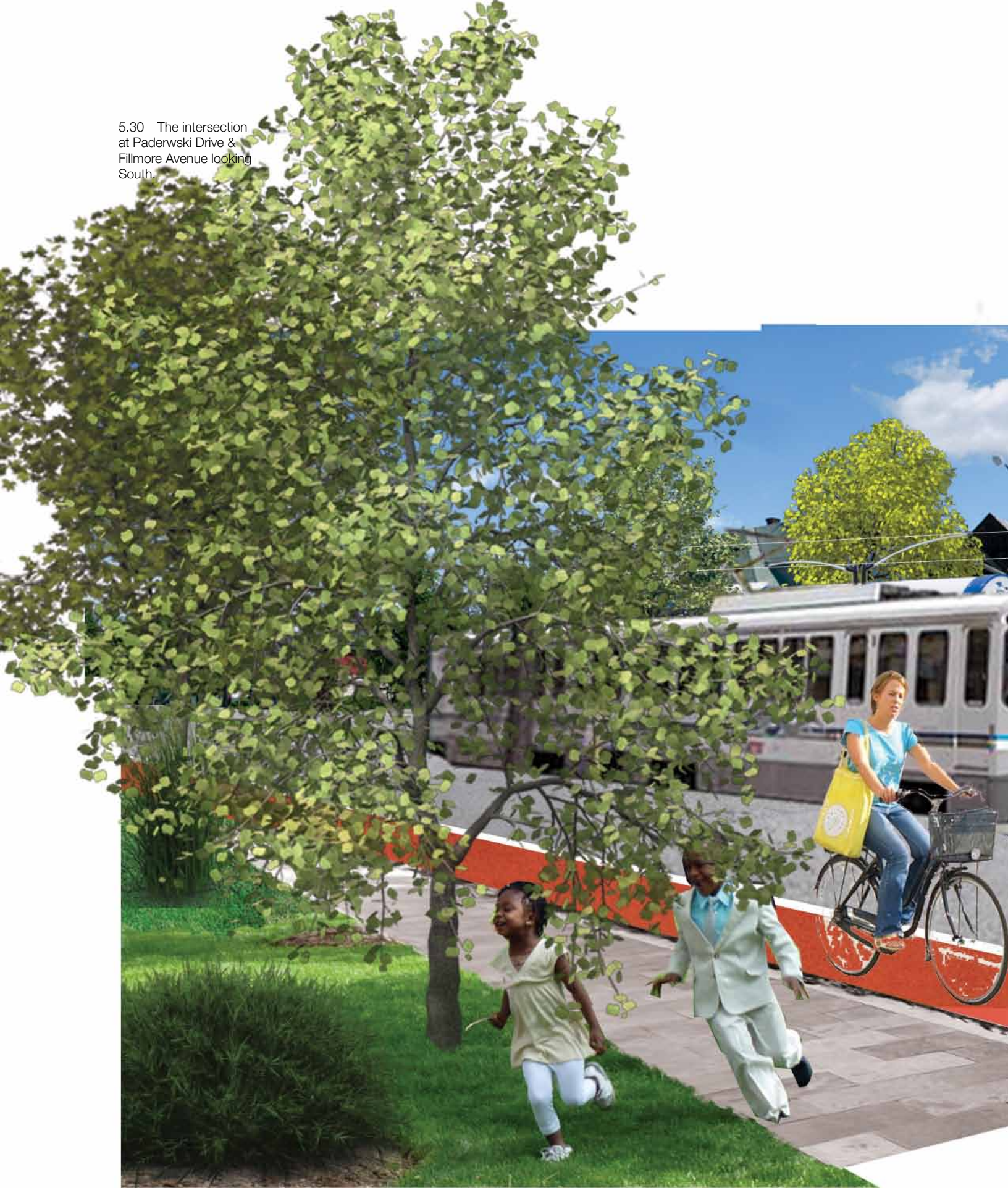
The design takes advantage of the existing connections between the Passenger Concourse, and platforms to create a multi-season market space. Stalls located on the interior of the building are open all year. The Market also houses a Community Kitchen where residents can take cooking lessons and learn about local food production.

The market stalls located on the platforms are open seasonally. The platforms are repaved and lengthened to create jetties that protrude into the landscape. The track space which lays between each platform, has been converted into flower and vegetable gardens used by the market merchants and community groups. The design creates a dynamic new landscape with traces of the site's past still apparent.

The Market draws together urban farmers, homestead owners and visitors to experience local fare as well as the beauty of the Terminal site.



5.30 The intersection at Paderwski Drive & Fillmore Avenue looking South.





## Narrative Vignettes

### Fillmore Avenue a green corridor

Fillmore Avenue is transformed into a new “green” corridor, connecting Broadway and Fillmore neighbourhood to North and South Buffalo.

The street is widened in the fifth stage of the design to allow for the addition of light rail lines and bike paths, linking into existing transit and park systems.

A linear park, the design of which changes on a yearly basis as part of the landscape and public art competition and treed colonnade line the Avenue on its West side, building upon Olmsted’s vision for Fillmore Avenue to become one of Buffalo’s many Parkways.

Commercial intersections sit at the Avenues crossing with major East-West streets.

Dense residential neighbourhoods line the East side of the Avenue with views onto the park.

Fillmore Avenue acts as one of the many circulation corridor for motorists, light rail users, cyclists and pedestrians, connecting the neighbourhood to the city, and the city to the neighbourhood.

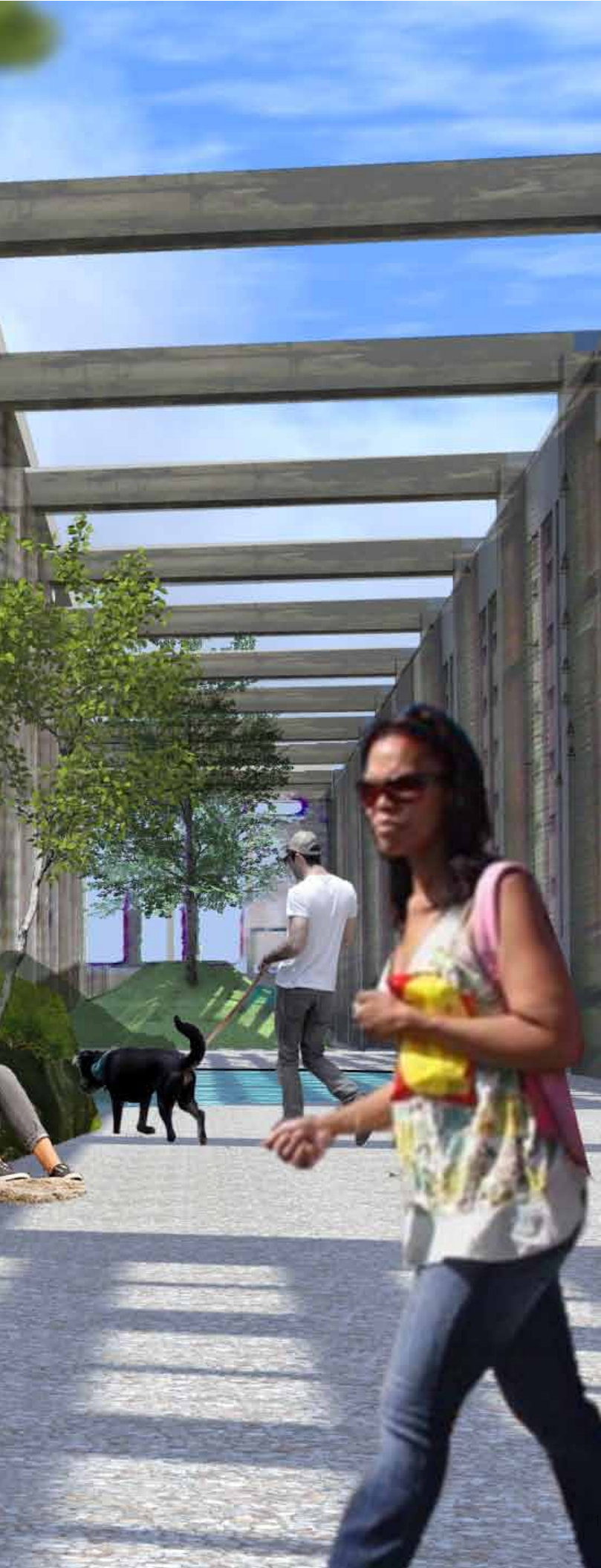




5.31 View of the Earth  
Mound Garden







## Narrative Vignettes

### Earth Mound Walled Garden

The construction of the Earth Mound Walled Garden is completed in the fifth stage of the design. The garden is located within the shell of the former package sorting building. The ceiling, as well as some windows, have been removed to reveal the building's structure, creating an urban ruin. The space acts as an entry point to the parks on the Terminal site. Not only does the garden serve to present a unique experience of the existing building, preserving and in some cases enhancing its sense of ruin. It also acts as a reminder of the Terminal's past, emphasizing the fragility of the built environment.

5.32 View of the Terminal looking towards its new front entrance.







## Narrative Vignettes

### A New Hub for Buffalo

The Terminal's construction is completed in the fifth and final stage of the 25 year staged design. A vital space incorporating a wealth of programme, it acts as a new hub for the neighbourhood and city.

The new design retains much of the existing building as is, the angular form of the new addition creates a new main entrance to the Terminal and serves as the new Contemporary Art Gallery, Theater and Media Library. It also creates new mode of circulating through the building, allowing visitors to weave in and out, through the new and old structures. Viewing platforms are added to the top floor of the tower providing visitors the opportunity to survey the changes in Buffalo's urban fabric from above.

The radical difference in form and material between the existing elements of the Terminal and the new addition, underlie the intension of the thesis; to spur change through the understanding and rethinking of the city's urban artifacts.



## Conclusion

The problems of Buffalo, a city which had depended upon industry and now exists in a post-industrial age, are shared with a multitude of other cities across North America and Europe. These cities are faced with shrinking population and abandonment of their urban fabric. Their once significant structures sit derelict and vacant. Like Buffalo's New York Central Terminal, these structures are reminders of these cities' prosperous past. The artifacts ability to survive within the urban landscape even when no longer functioning, underscore their role in the collective memory of residents of the city.

The Thesis looks to an urban artifact as a starting point to spur change within a struggling city. The New York Central Terminal is re-envisioned as a vibrant new hub for Buffalo. The design integrates a variety of programme to make the building a rich experiential space that connects with the community and city in a meaningful way. While areas of the surrounding neighbourhood are deconstructed, the Terminal's programme continues to grow and develop. The reciprocal relationship between the artifact and the larger vision for the city is made possible by the creation of strong urban networks. These networks allow for redevelopment and growth to take place strategically overtime. The dual design strategy of creating strong urban networks while at the same time focusing upon the re-design of hubs (urban artifacts), nodes which connect these networks, is one that can be applied to many struggling post-industrial cities.

In recent years, changing economic conditions have affected the way cities develop. An economy to support constant growth no longer exists and the view that all development is good is being questioned. The Thesis seizes upon the fact that it is a unique point within the urban history of many cities. Many such cities are at a critical turning point, finding themselves in steep decline yet with a wealth of both cultural and architectural history. Many artists and architects have seized upon similar situations, creating projects which radically change and re-think accepted norms. Buffalo and The New York Central Terminal provide an opportunity to re-envision the post-industrial city. The Thesis outlines a new vision which does not ignore the City's past ambitions but seizes upon them, re-interpreting them to create a new Buffalo which will thrive within the twenty-first century.



## References



# References

## Introduction

Empire State Development. "Restore New York Communities Initiative." <http://www.esd.ny.gov/BusinessPrograms/RestoreNY.html>.

Merriam-Webster Dictionary, <http://www.merriam-webster.com/dictionary/rust%20belt>.

New York State, Homes & Community Renewal. "PUSH Buffalo Received First Award under HCR's Sustainable Neighborhoods Program." <http://www.nyshcr.org/Press/News110418.htm>.

Pittsburgh History & Landmarks Foundation. "Mission & Brief History." <http://www.phlf.org/a-brief-history-of-pittsburgh-history-landmarks-foundation>.

Rossi, Aldo. *The Architecture of the City*. Cambridge, Massachusetts: The MIT Press, 1982.

## 1 A History of Buffalo

Bisco, Jim. *Buffalo: a Greater Look at Greater Buffalo*. Northridge, CA: Windsor Publications, 1986.

Buffalonian, The. "The 1967 Riots in Buffalo, N.Y." <http://www.buffalonian.com/history/articles/1951-now/1967riots/index.html>.

Goldman, Mark. *City on the Edge: Buffalo, New York*. Amherst, NY: Prometheus Books, 2007.

National Parks System. "Future US Nominations to the World Heritage List." <http://www.nps.gov/history/worldheritage/list1.htm>.

Reyner, Banham, et.al. *Buffalo Architecture: A Guide*. Cambridge, Massachusetts: MIT Press, 1981.

Silsby, Robert W. *The Holland Land Company in Western New York*. Buffalo and Erie County Historical Society, 1961.

U.S. Census Bureau. "Buffalo: New York: 2005-2009 American Community Survey 5-Year Estimates." [http://www.factfinder.census.gov/servlet/ACSSAFFacts?\\_event=Search&geo\\_id=&\\_geoContext=&\\_street=&\\_county=Buffalo&\\_cityTown=Buffalo&\\_state=04000US36&\\_zip=&\\_lang=en&\\_sse=on&pctxt=fph&pgsl=010](http://www.factfinder.census.gov/servlet/ACSSAFFacts?_event=Search&geo_id=&_geoContext=&_street=&_county=Buffalo&_cityTown=Buffalo&_state=04000US36&_zip=&_lang=en&_sse=on&pctxt=fph&pgsl=010).

U.S. Census Bureau. "Population of the 100 Largest Cities and other Urban Places in the United States: 1790 to 1990." Published June 1998. <http://www.census.gov/population/www/documentation/twps0027/twps0027.html>.

## 2 Buffalo Analysis

Belson, Ken. "Vacant Houses, Scourge of a Beaten-Down Buffalo." *The New York Times*. September 13, 2007. accessed October 5th 2010. <http://www.nytimes.com/2007/09/13/nyregion/13vacant.html>.

Bureau of Labor Statics. "Bureau of Labor Statistics: Labor Force Statistics from the Current Population Survey." accessed April 8 2010, <http://data.bls.gov/cgi-bin/surveymost>.

Good Neighborhood Planning Association. "East Buffalo Neighbors' Planning Alliance Neighborhood Plan." prepared as a component of *The Queen City in the 21st Century: Buffalo's Comprehensive Plan*, 2007.

U.S. Census Bureau. "Buffalo city, New York: Population and Housing Narrative Profile, 2006-2008." 2010.

U.S. Census Bureau. "Buffalo, New York: American Community Survey, 2006-2008." 2010.

### **3 Design Techniques & Intentions**

- Belson, Ken. "Vacant Houses, Scourge of a Beaten-Down Buffalo." The New York Times. September 13, 2007. accessed October 5th 2010. <http://www.nytimes.com/2007/09/13/nyregion/13vacant.html>.
- Busquets, Joan and Felipe Correa ed. Cities 10 Lines. Cambridge, MA: Harvard University - Graduate School of Design, 2006.
- Cohn, David. "Caixa Forum, Spain" Architectural Record 196 (2008): 109-112.
- Corner, James ed. Designing The Highline: Gansevoort to 30th Street. New York: The Friends of The Highline, 2008.
- Corner, James. "Terra Fluxus," In The Landscape Urbanism Reader, ed. Charles Waldheim. New York: Princeton Architectural Press, 2006.
- DeZeen: Design Magazine. "Ice House Detroit." <http://www.dezeen.com/2010/03/29/ice-house-detroit-by-gregory-holm-and-matthew-radune/>
- Fjeld, Per Olaf. Sverre Fehn: The Pattern of Thoughts. New York: The Monacalli Press, 2009.
- Manaugh, Geoff. The Bldg Blog Book. San Francisco: Chronicle Books, 2009.
- OMA. "Venice Biennale 2010: Cronocoas, Italy, Venice, 2010." [http://www.oma.eu/index.php?option=com\\_projects&view=project&id=1260&Itemid=10](http://www.oma.eu/index.php?option=com_projects&view=project&id=1260&Itemid=10).
- Rossi, Aldo. The Architecture of the City. Cambridge, MA: The MIT Press, 1984.
- Schneider, Christine, ed., Rachel Whiteread. London: Haunch of Vension, 2002.
- Schutlz, Anne-Catrin. Carlo Scarpa Layers. Stuttgart: Edition Axel Menges, 2007.
- Sussman, Elizabeth ed., Gordon Matta-Clark: You Are the Measure. New Haven: Yale University Press, 2007.
- Waldheim, Charles and Mari Santos-Munné. "Decamping Detroit." In Stalking Detroit ed. Georgia Daskalakis, Charles Waldheim, and Jason Young. Barcelona: ACTAR, 2001.
- Weilacher, Udo. Syntax of Landscape; The Landscape Architecture of Peter Latz and Partners. Basel: Birkhauser, 2008.
- Woodward, Christopher. In Ruins. New York: Pantheon Books, 2001.

### **4 Staged Design Strategy**

- Albright-Knox Gallery. "History." <http://www.albrightknox.org/about-ak/history/>.
- Buffalo Museum of Science. "About Us." <http://www.sciencebuff.org/about-us/>
- Buffalo Museum of Science. "About Tiff." <http://www.sciencebuff.org/tift-nature-preserve/about-tift/>
- Buffalo Olmsted Parks Conservancy. "Casenovia Park". <http://www.bfloparks.org/index.php/parks/cazenovia>
- Buffalo Olmsted Parks Conservancy. "Front Park". <http://www.bfloparks.org/index.php/parks/front>.
- Buffalo Olmsted Parks Conservancy. "Martin Luther King Jr. Park". [http://www.bfloparks.org/index.php/parks/MLK\\_jr](http://www.bfloparks.org/index.php/parks/MLK_jr)

## 4 Staged Design Strategy (continued)

Central Terminal Restoration Corporation, Inc. "Central Terminal Timeline." <http://buffalocentralterminal.org/about-the-terminal/central-terminal-timeline/>

Fontana Boat House. "The Building." <http://www.wrightsboathouse.org/building.html>.

Peters, Arlan. Buffalo as an Architectural Museum. "Shea's Buffalo Theater/Shea's Performing Arts Center." last modified 2008. <http://www.buffaloah.com/a/main/646/time/time.html>.

Reyner, Banham, et.al. Buffalo Architecture: A Guide. Cambridge, Massachusetts: MIT Press, 1981.

The New York Central Terminal of Buffalo New York. "History 1842-1945." <http://www.buffalohistoryworks.com/terminal/history/history.html>

## 5 Design

Albright-Knox Gallery. "Artist-In-Residence Program." <http://www.albrightknox.org/education/artist-in-residence-program/>.

Albright-Knox Gallery. "History." <http://www.albrightknox.org/about-ak/history/>.

Buffalo Olmsted Parks Conservancy. 21st Century, Master Plan. May, 2008.

Buffalo Olmsted Parks Conservancy. "History." <http://bfloparks.org/index.php/conservancy/History>.

Buffalo Re Use. "Mission Statement." <http://www.buffaloreuse.org/About/Mission>.

Broadway Market. "The History of the Broadway Market." [http://broadwaymarket.org/?page\\_id=2](http://broadwaymarket.org/?page_id=2).

Good Neighborhood Planning Association. "East Buffalo Neighbors' Planning Alliance Neighborhood Plan." prepared as a component of The Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2007.

Halpern, Jake. "The Freegan Establishment." The New York Times. May 31, 2010. <http://www.nytimes.com/2010/06/06/magazine/06Squatters-t.html>.

Meyer, Brian. "Urban farming touted as tool for neighbourhood revival," Buffalo News. March 23, 2010. <http://buffalonews.com/cgi-bin/NiagaraFrontierTransportationAuthority>. "About the NFTA." <http://www.nfta.com/metro/about.asp>.

Penksa, Janet. "Mayor Brown's '5 in 5' Demolition Plan." In Moving Buffalo Forward: Policy Briefs from the Brown Administration Vol.1., No.1. August, 2007.

## Appendix A: Precedents

- Bear, Liza. "Gordon Matt-Clark: Splitting" *Avalanche*, December 1974.
- Chan, Elisabeth Clemence. "What roles for ruins? Meaning and narrative of industrial ruins in contemporary parks." *Journal of Landscape Architecture*. Autumn (2009): 20-31.
- Chao, Albert. "Design Matters: Eternal Returns," *Art Voice*. Vol 5, No. 41, 2006.[http://artvoice.com/issues/v5n41/eternal\\_returns](http://artvoice.com/issues/v5n41/eternal_returns)
- Cohn, David. "Caixa Forum, Spain" *Architectural Record* 196 (2008): 109-112.
- Corner James ed. *Designing The Highline: Gansevoort to 30th Street*. New York: The Friends of The Highline, 2008.
- Crison, Mark. *Urban Memory: History and amnesia in the modern city*. New York: Routledge, 2005.
- Daskalakis, Georgia. "Decamping Detroit." *Stalking Detroit*, ed. Daskalakis, Georgia et al. 2002.
- DeZeen: Design Magazine. <http://www.dezeen.com/2010/03/29/ice-house-detroit-by-gregory-holm-and-matthew-radune/>
- Fernandez-Galiano, Luis. *Fire and Memory: on architecture and energy*. trans. Gina Carino. Cambridge, MA: The MIT Press, 2000.
- Fjeld, Per Olaf. *Sverre Fehn: The Pattern of Thoughts*. New York: The Monacalli Press, 2009.
- Fjeld, Per Olaf. *Sverre Fehn: The Thoughts of Construction*. New York: Rizzol, 1983.
- Gleuk, Grace. "Art People: A drive to save split sculpture," *The New York Times*. March 14, 1980.
- Highline, The. <http://www.thehighline.org>
- Maher, Dennis. "Towards Un-Building: Sustainable Architecture as Social Enterprise," *306090 Books: Sustain and Develope*, 13 (2009):34-38.
- Schneider, Christine, ed., Rachel Whiteread. London: Haunch of Vension, 2002.
- Schultz, Anne-Catrin. *Carlo Scarpa Layers*. Stuttgart: Edition Axel Menges, 2007.
- Smith, Roberta. "The Best of Sculptors, the Worst of Sculptors", *The New York Times*. November 30, 1993.
- Sussman, Elizabeth ed., *Gordon Matta-Clark: You Are the Measure*. New Haven: Yale University Press, 2007.
- Tereck, Donna. "Detroit Ice House is really all about art" *The Detroit News*, February 7, 2010. <http://detnews.com/article/20100207/OPINION03/2070309>.
- Walker, John A. *Art & Outrage: Provocation, Controversy and the Visual Arts*. London: Pluto Press, 1999.
- Weilacher, Udo. *Syntax of Landscape: The Landscape Architecture of Peter Latz and Partners*. Basel: Birkhauser, 2008.





## Appendix A **Precedents**



## Precedents

Architecture embodies memory and time in a tactile way. As the city of Buffalo shrinks and decays certain buildings or urban artifacts remain. These remaining artifacts can be classified as architectural permanences. Aldo Rossi defines two types of permanences, those that are propelling elements and, “...enable us to understand the city in its totality...” or those that are pathological permanences, “... appear(ing) as a series of isolated elements that we can link only tenuously to an urban system.”<sup>1</sup>

The following precedents reflect the different techniques by which architecture is re-purposed to create a meaningful link between past and present. Thus providing a new understanding of the building itself and a new role for it to play within the larger urban and cultural context. The preservation and re-purposing of architecture has played an important part in how physical spaces, whether they are buildings, sculpture, monuments etc., help us to remember, and evoke a dialogue between the past and present. In our current political climate, shifts in industry, economy and culture have led to a drastic change in the built fabric of the city. Obsolete building types are now abandoned, vacant, and derelict structures within our cities. Nowhere are these problems more apparent than in Buffalo, New York. The following precedents outline a variety of designs, which have both addressed and incorporated the past in order to create new and meaningful designs for their current times.

<sup>1</sup> Aldo Rossi, *The Architecture of the City*, (Cambridge, MA: MIT Press, 1982) 59.



## Scale & Type

Memory and meaning is embodied and presented through the built environment in a variety of different ways. The scale of a project directly relates to its materiality and the process in which it is conceived and develops over time. Architect as Sculpture deals with the past and present through its materiality and reinterpretation of familiar types of architecture. Through representation of pieces of the architecture in different environments, viewers are lead to think about the history of the original object. Repurposed buildings integrate new and old building types as a unified whole, creating hybrid forms and new urban relevance. Reintegrated Infrastructure and Planning projects concentrate on irrelevant infrastructure and abandoned neighbourhoods, reinterpreting and remediating them, through the integration of natural processes.

The projects presented are separated into three different categories : Architecture as Sculpture, Repurposed Buildings and Reintegrated Infrastructure and Planning. The categories are organized by the projects scale from smallest to largest. The analysis of these precedents provides a template of design techniques which infuse relevance and new meaning into buildings or pieces of the city which, due to changes overtime, have lost their original use or function.

### Iconic Monument

These projects focus on re-contextualizing everyday spaces by representing them in unique ways. They either present recognizable forms made from unusual materials or unique forms made from mundane materials. These subtle interventions lead viewers to question the meaning and history of the original object, thus creating a dialogue between the thing and the memory of the thing. The documentation of the creative process is also very important. By documenting how the work changes over the period of its creation, an emphasis is put on the importance of time and history within these projects.

### Repurposed Buildings

The struggle to balance the need to preserve buildings of historic importance and at the same time to add new architectural elements that change the original building, is clear within all of these projects. It is dealt with in a variety of ways from very subtle design interventions which seek to preserve the building in its exact state even if this means preserving a ruin or using the historic building merely as a decorative shell with no care given to convey its original use or presence within the city. The combination of old and new into one unified project lies within the joint between these two elements, no matter how differently this joint is dealt with in the design.

### Reintegrated Infrastructure and Planning

A city's plan and infrastructure are often shaped by the industries supporting that city. Through shifts in industry and the economic structures on which cities rely, these large pieces of the city can become irrelevant. The projects seek to reintegrate these pieces through a process of integrating natural processes which change the way these urban ruins sit within the city fabric, and also by the way people interact with the projects themselves.





6.1 Photograph of Rachel Whiteread's "House" taken by John Davies (top)

6.2 Photograph of "House" showing the casting process and dismantling of the structure taken by John Davies (bottom)



## Precedents: Iconic Monument

“House” - 1993  
“Untitled (Apartment)” - 2000  
“Untitled (Bedroom)” - 2000  
Rachel Whiteread

Rachel Whiteread’s 1993 project “House,” is a full scale concrete casting of the interior a Victorian Terrace house (Figure 3.1). 193 Grove Road is an address in London’s run-down Bow neighbourhood in the East End. The house was the last of a series of terrace houses that were demolished to make way for a park. “House” was displayed on the same site where the original house once stood.

Whiteread had used the casting process in many of her projects including, “Ghost” 1990, “Untitled (Apartment)” 2000 and “Untitled (Basement)” 2000. However “House” is the only project that tackled the whole building as a cast, not just a room within a building. The casting process, in which both the negative space that the architecture provides was filled with concrete or resin and is transformed into a sculpture, is that of a dialogue (Figure 3.2). The transformation of void to solid in the casting of negative spaces is common in the tradition of sculpture making. “House” does not rely on the artists’ skill to manipulate a particular material, but rather it hinges on the choice of the formwork for the cast<sup>2</sup>.

*“The plaster, artificial resin, or wax cast, regardless of whether it be from an original or from a form taken from the original, always involves a counterpart...”<sup>3</sup>*

Thus forcing the viewer to think dialectically. This dialogue helps to invoke the images of the “missing other” from which the cast was created. In “House”, the cast acts as a physical trace of the house and also as a iconic image or monument to the terrace houses of East London.

The ability of Whiteread’s work to bring about

<sup>2</sup> John A. Walker. *Art & Outrage: Provocation, Controversy and the Visual Arts* (London: Pluto Press, 1999), 165.

<sup>3</sup> Schneider, Christine, ed. *Rachel Whiteread* (London: Haunch of Vension, 2002), 28.

a dialogue between that which is in the present, and the space of memory is clear in the reaction to “House”. The sculpture was meant to be a temporary exhibit within the neighbourhood. When the time came to demolish the piece, the decision was met with disagreement, a reaction in line with that of the public while the piece was standing. Hundreds of local Londoners, as well as visitors from abroad, came to see “House”. Demands were made for the sculpture to stay for a longer period. A slight extension was granted until January 1994, mainly as a result of pressure from Members of Parliament and the non-for profit art group Artangel. Shortly after the project was destroyed and a public green space is all that remains where “House” once stood.

“House” was described as “...a monument to the lives of ordinary people...”<sup>4</sup> and, “by calling attention to the demolition of houses in East End, the sculpture indicted the Conservative government’s indifference to the need for new council housing for the homeless.”<sup>5</sup> Whiteread made no specific political commentary herself. There was also negative public reaction: (Figure 3.3-3.6) local residents disliked the heightened amount of traffic in their residential neighbourhood. Reactions to houses were mixed, split both within the art world, and amongst local residents.

Because of the intense interest in “House”, whether positive or negative, there was considerable media coverage of the project world-wide. Whiteread was awarded the 1993 Turner Prize<sup>6</sup>. An award given to British Artists for the best exhibition or presentation of their work. Whiteread later won a competition to create a Holocaust memorial in Judenplatz, Vienna using the same casting method that produced “House.” Controversy surrounded the memorial project as well but it was eventually built.

4 John A. Walker, *Art & Outrage: Provocation, Controversy and the Visual Arts* (London: Pluto Press, 1999), 168.

5 Ibid., 168.

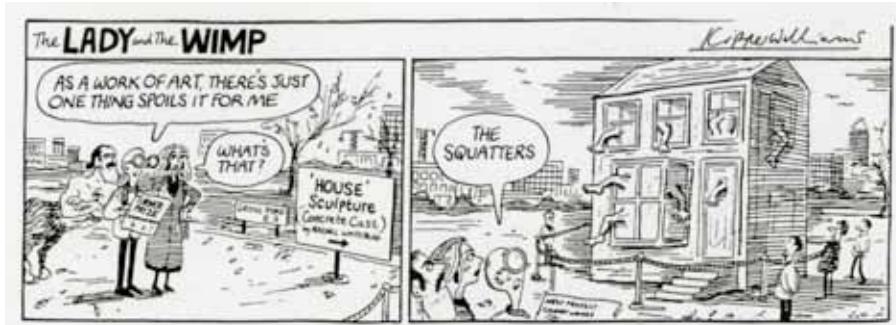
6 Roberta Smith, “The Best of Sculptors, the Worst of Sculptors”, *The New York Times*. November 30, 1993.

6.3 Kipper William's cartoon from *Time Out* Magazine depicting the insensitivity of the artistic intellectual to the plight of the neighbourhood.

6.4 Colin Wheeler's cartoon from *The Independent* mocking Whiteread's 1993 Turner Prize Win.

6.5 'If that is art then I'm Leonardo da Vinci!' article from *East London Advertiser* documenting mixed public reaction to the sculpture.

6.6 Ulla Kloster's article reviewing "House" for *East London Advertiser*, 1993.





6.7 Photograph of "Bronx Floors: Threshold" (right)

6.8 Photograph showing the removal blocks from the house's foundation which allowed it to tilt and emphasize the split.

6.9 Photograph of showing the open corner left by its removal for use in "Splitting: Four Corners"

6.10 Photograph of one of the four roof corner sculptures from "Splitting: Four Corners"





## Precedents: Architecture as Sculpture

“Splitting”, “Four Corners” -1974  
“Office Baroque” - 1977  
Gordon Matta-Clark



“Splitting” was one of artist Gordon Matta-Clark’s building cut projects. The building cutting process was used by the artist in a variety of projects, to make large scale cuts in a building. Previously, he had focused on making random cuts on abandoned buildings such as in the “Bronx Floor” projects 1972-83 (Figure 3.7). Splitting was much more meticulous. The project was executed from March to June of 1974, on a house in the Englewood Community of New Jersey. The house was given to Matta-Clark by the Soloman family. The previous tenants had been evicted due to plans to redevelop the area; plans that had “split” the community<sup>7</sup>.

Initially Matta-Clark had only planned to cut the building down its center. After this first cut was completed however, he decided to tilt the building by removing some of its foundation blocks, making the cut more prominent and revealing the inner framework of the house (Figure 3.8).

After the first showing of the project, “Splitting: Four Corners” was executed, in which the four corners of the roof were removed from the house (Figure 3.9). The four corners were then displayed as sculpture in John Gibson Gallery, New York (Figure 3.10). A two inch layer of dust and debris was kept in the attic ceiling of the cuts, to preserve the history of the original building<sup>8</sup>. However, the artist’s unveiling of the layers of history within a building was not his intention. Matta-Clark said that his focus on using abandoned buildings was,

*“...purely expedient. The only reason I’m dealing with those situations is because they are the only ones that are available...I’d just as soon deal with something that’s brand new, crisp and not ready for the ax.”<sup>9</sup>*

7 Elizabeth Sussman ed. *Gordon Matta-Clark: You Are the Measure* (New Haven, Yale University Press, 2007), 119.

8 *Ibid.*, 120.

9 Liza Bear, “Gordon Matt-Clark: Splitting,” *Avalanche*, December 1974, 34-37.

Gordon Matta-Clark's "Splitting" calls into question the role of construction and deconstruction in the creative process. The process, which he documented through film, photography and collage, emphasizes the importance of time and metamorphosis (Figure 3.11). The film "Splitting" captures the change in the building over time due to the cuts.

"Office Baroque", 1977 was the last of Matta Clark's building cut projects to be demolished in the summer of 1980 (Figure 3.12&3.13). There was a great effort made to save "Office Baroque". More than 230 artists from 20 countries, donated art to be sold to raise money to purchase the property on which the project was located<sup>10</sup>. The developer tore the project down in 1980, after continuously raising the price of the property.

Matta-Clark's projects, as well as the documentation of his working process, brought the sublime beauty of abandoned spaces to a forefront. By cutting away at mundane building types such as office blocks, factories and suburban housing, he helped to give a new interest to these otherwise overlooked buildings. He also brought into question the relationship between the viewer and the object. Displaying fragments of the cuts in a gallery space changed the observers relationship to the building, showing a piece of the building as a sculpture rather than a mere fragment.

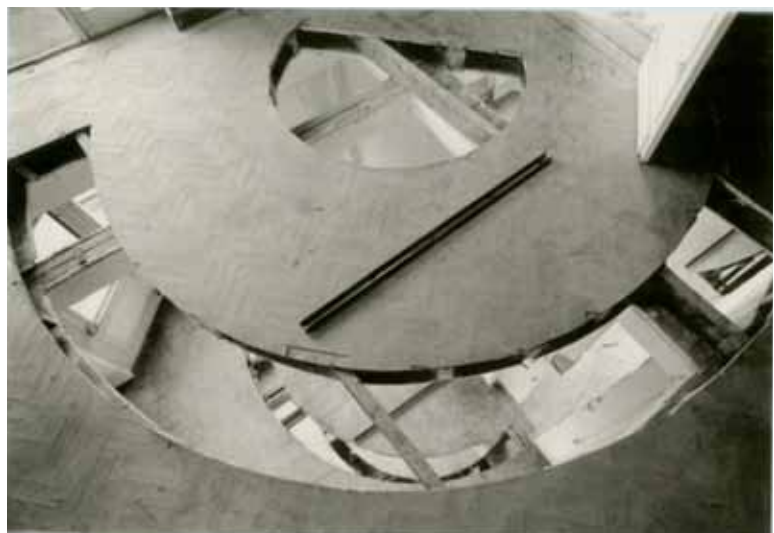
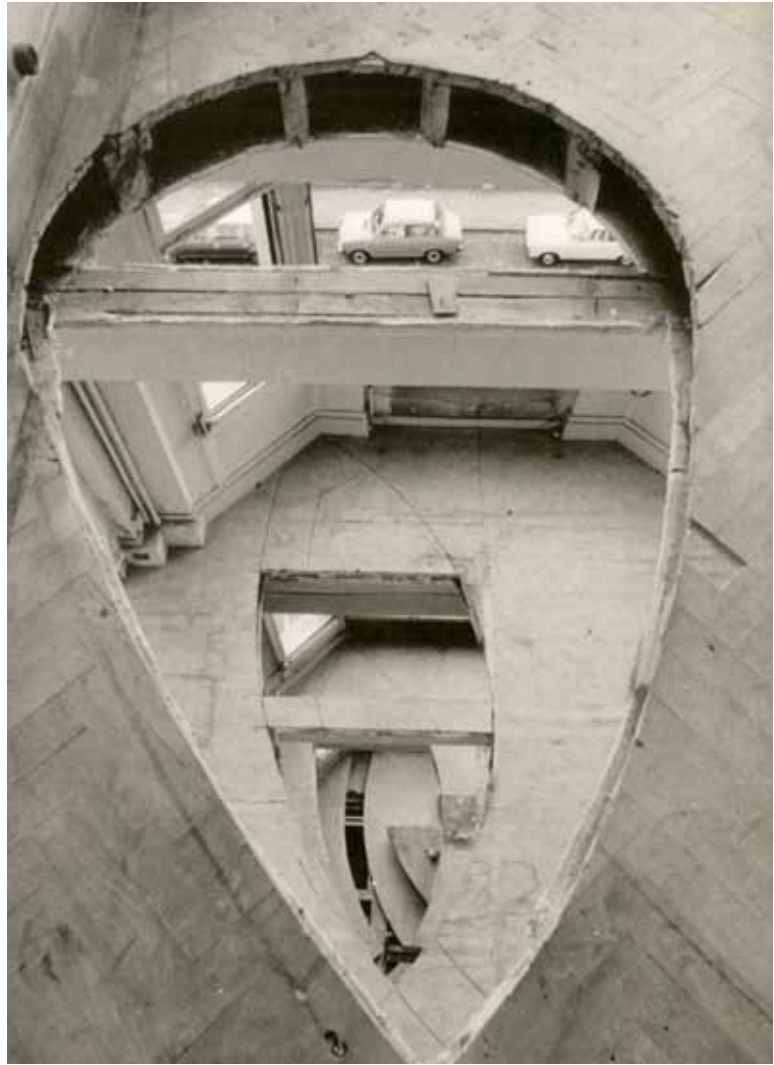
<sup>10</sup> Grace Gleuk, "Art People: A drive to save split sculpture," *The New York Times*. March 14, 1980, sec. C, C1.



6.11 Gordon Matta Clark's photographic collage of "Splitting" (left)

6.12 Photograph of cuts in the floor created by Matta-Clark in his last project "Office Baroque"

6.13 Photograph of "Office Baroque". The geometry of the curves cut were taken from those of baroque architecture





6.14 Image of "Ice House Detroit" at sun set

6.15 A water truck provides large amounts of water to cover the house.

6.16 Local resident stands in front of the Ice House



## Precedents: Iconic Monument

### “Ice House Detroit” - 2009-2010 Gregory Holm & Matthew Randune

“Ice House Detroit” was a collaboration project between the photographer Gregory Holm, and the architect Matthew Randune (Figure 3.14). The two covered an abandoned home with layers of ice. The project located on 3926 McClellan Road, aimed to bring attention to issues of housing foreclosures, and abandonment, in the residential neighbourhoods of downtown Detroit.

The project re-contextualized one of the city’s 80,000 abandoned houses<sup>11</sup>. The two artists leased the house from The Michigan Land Bank, owner of the home after its foreclosure. Over a period of weeks the house was sprayed with water to create layer upon layer of ice (Figure 3.15). The choice of ice was used as a metaphor for the freeze in the housing market, one of many factors which lead to Detroit being a leading American city in housing foreclosures. The project and process were documented on both film and in photographs compiled in a book (Figure 3.16). After the project was finished, the house was demolished. The artists worked with community groups to demolish in a responsible manner, salvaging usable building materials. Once the house was demolished, the property was donated to local urban farmers for cultivation<sup>12</sup>.

The project garnered both international and local recognition, being covered by the BBC, The New York Times and Time Magazine<sup>13</sup>. Holm and Randune worked in conjunction with local community groups, staging a food and clothing drive on Martin Luther King Day. However, critics questioned whether social change occurred or if the project was merely “all about art.”<sup>14</sup> Whether positive or negative, the project did manage to bring attention to abandonment in the city, connecting it with a recognizable and provocative image of the “Ice House”.

11 Marcus Farris, February 3, 2010. Ice House Detroit by Gregory Holm and Matthew Radune. DeZeen: Design Magazine. <http://www.dezeen.com/2010/03/29/ice-house-detroit-by-gregory-holm-and-matthew-radune/>. (accessed Aug, 25, 2010).

12 Ibid.

13 Ice House Detroit. <http://icehousedetroit.blogspot.com/>. (accessed Aug, 25, 2010)

14 Donna Tereck, “Detroit Ice House is really all about art,” *The Detroit News*, Feb, 7 2010, <http://detnews.com/article/20100207/OPINION03/2070309>





6.17 2009 "Ecologies of Decay" installation at Artspace, Buffalo.

6.18 The artist walks through his 2006 "Eternal Ruins" installation



## Precedents: Iconic Monument

“Source”, “Queen”, “Raven” - 2006  
Dennis Maher

The Buffalo artist and architect Dennis Maher, worked in cooperation with Buffalo ReUse to create his “un-building” sculptures. Buffalo ReUse is a grass-roots association which deconstructs derelict homes and reclaims quality building materials for use in other building projects. By taking these materials, “...from the rapidly deteriorating inner core, this urban mining operation diverted over 150 tons of material from the landfill in 2007, its first full year of work.”<sup>15</sup> In addition to material recovery, ReUse has a unique land recovery program. The group combined a series of vacant lots under different ownership through negotiation, bartering and sanctioned squatting. It uses these properties as its headquarters, storage space and community gardens. The importance of this program is its ability to deal with the liabilities of abandoned buildings, while creating a sense of community through un-building and re-building<sup>16</sup>.

Dennis Maher also harvested unusable building materials from the ReUse project, and re-assembled them into large scale public sculpture often presented in vacant city buildings (Figure 3.17). Maher has described his work as,

*“Promoting the regenerative capacities of an un-done and re-done urban environment, the assembled city fragment constitute a local response to issues of building, demolition, landfill diversion, vacancy and neglect.”<sup>17</sup>*

The artist’s 2006 show, “Eternal Returns” was showcased in a restored Knights of Columbus mansion in Buffalo (Figure 3.18). The space was chosen as a juxtaposition to show the two extremes of restoration<sup>18</sup>.

15 Dennis Maher. “Towards Un-Building: Sustainable Architecture as Social Enterprise,” *306090 Books: Sustain and Develop*. 13 (2009) 35.

16 *Ibid.*, 37.

17 *Ibid.*, 37.

18 Albert Chao. “Design Matters: Eternal Returns,” *Art Voice*. Vol 5, No. 4, 2006. [http://artvoice.com/issues/v5n4/eternal\\_returns](http://artvoice.com/issues/v5n4/eternal_returns) (accessed August 25, 2010)



## Precedents: Iconic Monument Conclusion

The four projects presented take advantage of abandoned spaces, seeing them either as potential platforms on which to propel the creation of new works, or as a source of material and inspiration. Seeing value in spaces that are familiar to everyone due to their mundane architectural type or form, yet when manipulated can give new meaning or new ways of interpreting the original building from which they were made.

These projects also bring social and political awareness to issues such as poverty, crime and unemployment which have led to abandonment and blight. This awareness has come from a place of curiosity. The pieces lead people to look at an otherwise typical site or building through a different lens. The designers have commented that the pieces are not meant to be political but rather the choice to use abandoned spaces was made because they provide on site materials, readily available at little cost. Helping to provide a new way of looking at these spaces, the works create a dialogue between the current work of sculpture and the original building from which it was made; without presenting a full historic account of what these buildings once were, who lived there and why they were left to decay. Viewers are allowed to ask these questions, either speculating on answers or taking a deeper interest and investing their time in the stories of the past. The site specific nature of these artworks also helps to underlie the importance of context to these works. The neighbourhoods and cities in which the artworks are displayed played an important role in the life of these buildings. Planning decisions, ghettoization of minorities and shifting industries are all issues which shape the city and can have a lasting physical effect on its fabric. By clearly understanding the site, the effects of larger social and economic issues have upon it, are evident.

These artworks underlie the notion that it is not necessary to re-develop or take a strong political stance in order to spur change, but rather a creative intervention can bring awareness to issues and create change naturally. The City of Buffalo is in a state of tension, like the projects presented it is torn between past ambitions and current problems. The insights drawn from these sculptures provide design solutions that lay in between total demolition, a negation of the past and pure preservation, a restoration of memory. These projects re-interpret or take elements of the original buildings in order to create new sculpture that evokes memories of the past, addresses current issues and provide new possibilities.



6.19 Historic Plan of Castlevecchio Complex (right)

6.20 Axonometric Diagram (right)

6.21 Plan (right)

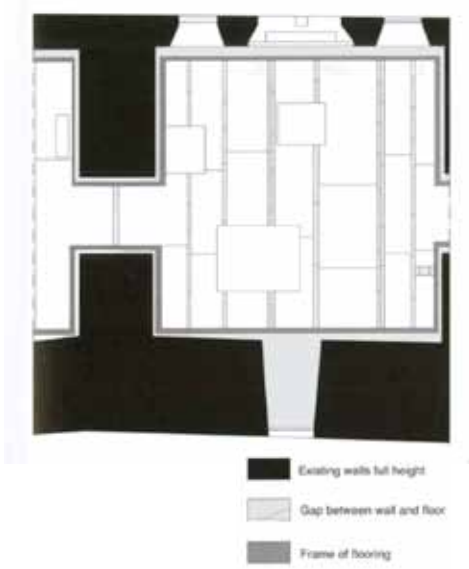
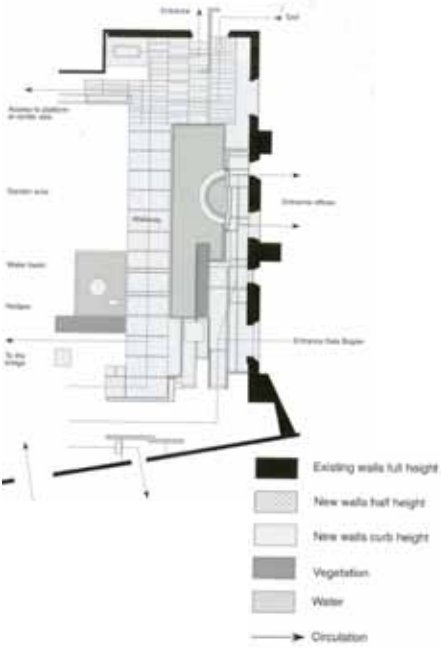
6.22 Image showing the artificial “peeling” away of the layers of the roof

6.23 Detail Plan of pathway, fountain and entry into gallery

6.24 Image showing material change and patterning of the pathway

6.25 Detail Plan of floor reveal in gallery space

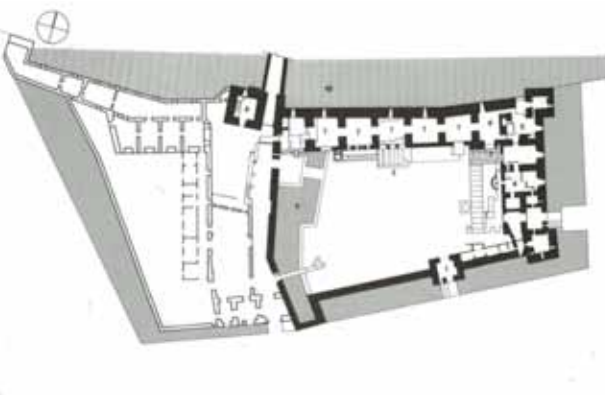
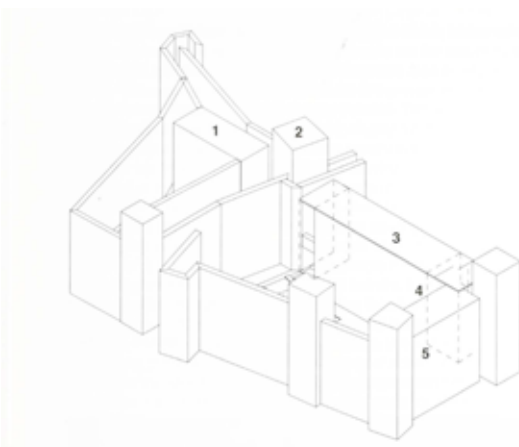
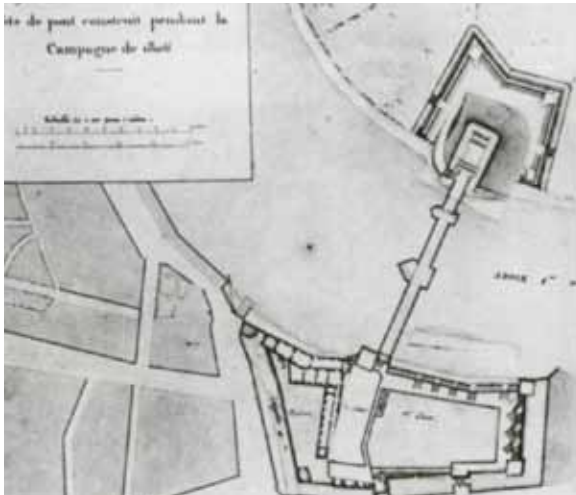
6.26 Image of floor reveal detail





## Precedents: Repurposed Buildings

“Castelvecchio” - 1964  
Verona, Italy  
Carlo Scarpa



The renovation of Castelvecchio was completed from 1958 to 1964 by Italian architect, Carlo Scarpa. The Castelvecchio fortress was built between 1354 to 1356 (Figure 3.19). The original purpose for the fortress was to protect the noble Scaligeri family from the citizens of Verona. The complex was then expanded by various rulers and governments over the centuries, displaying a patchwork of different architectural periods. In 1923, the city converted the fortress into a museum to house its collection of paintings.

Scarpa approached the project with a process oriented design philosophy, sensitive to the fact that the building consisted of a variety of historical fragments. Scarpa peeled away layers of the building, revealing the different time periods sedimented on the site. At the same time, he also added an interpretive layer of his own (Figure 3.22). Stratification played an important role in the project,

*“The rooms of the complex (were) not covered with a single ‘modernized’ layer; rather, fragments that span the building’s history until well into the 20th century (were) added to them at historical nodes.”*<sup>19</sup>

The role of the joint as a connective and separative element, was important within the project at all scales, from that of the cladding materials to the buildings within the complex itself. Scarpa helped to emphasize the separation between buildings, making architectural interventions of negative space. Interior rooms became exterior and thresholds were created between the courtyard and the interior gallery spaces. These thresholds were further emphasized through entry over water and changes in paving materials (Figure 3.23 & 3.24). Even within the gallery

19 Anne-Catrin Schultz. *Carlo Scarpa Layers*. (Stuttgart: Edition Axel Menges, 2007), 79.

space itself the idea of the joint was applied to the flooring surface “...making a negative seam, the floor of each room was individualized, as if they were a series of platforms.”<sup>20</sup> (Figure 3.25 & 3.26)

There is a strong relationship between interior and exterior space in Castelvecchio. Scarpa relocated the entrance to the building. The new entrance is reached by a pathway that transverses an existing moat within the courtyard (Figure 3.27). The pathway features a fountain and stone slabs salvaged from the existing building (Figure 3.28). Scarpa filled the old entrance with a protruding stone clad room, which has a strong presence in the outdoor space (Figure 3.29).

Nowhere is the threshold between interior and exterior more strongly expressed than in the space Scarpa carved away from the building to showcase the Cangrande statue (Figure 3.30-3.32). This void acts as a centerpiece, in the courtyard. The space also leads to an exhibition area. A series of stairs and bridges weave through existing structure, suggesting a passage through time (Figure 3.33). The roof of this space is peeled away, revealing imaginary layers of the historical roof structure (Figure 3.34). The space also serves as a light shaft, new cuts are made in existing building fabric to let light enter the existing spaces in unexpected ways.

The facade of the building, already a collage of different building elements from previous renovations, was further constructed upon by Scarpa. Sheets of glass are layered behind existing openings, to create new windows.

On all scales, this project focus on the joint as a way to both unify and distinguish existing architecture from new interventions. Scarpa created stratification, by cutting away at pre-existing strata, as well as adding layers to it. The space works didactically, allowing various architectural time periods to be viewed at once, and thus creating a unified whole.

20 Schutlz, Anne-Catrin. 2007. *Carlo Scarpa Layers*. Stuttgart: Edition Axel Menges. 82.



6.27 Textured pathway leading to new entrance into the gallery (opposite page)

6.28 Salvaged fountain (opposite page)

6.29 A stone clad room occupies the original entry to the building (opposite page)

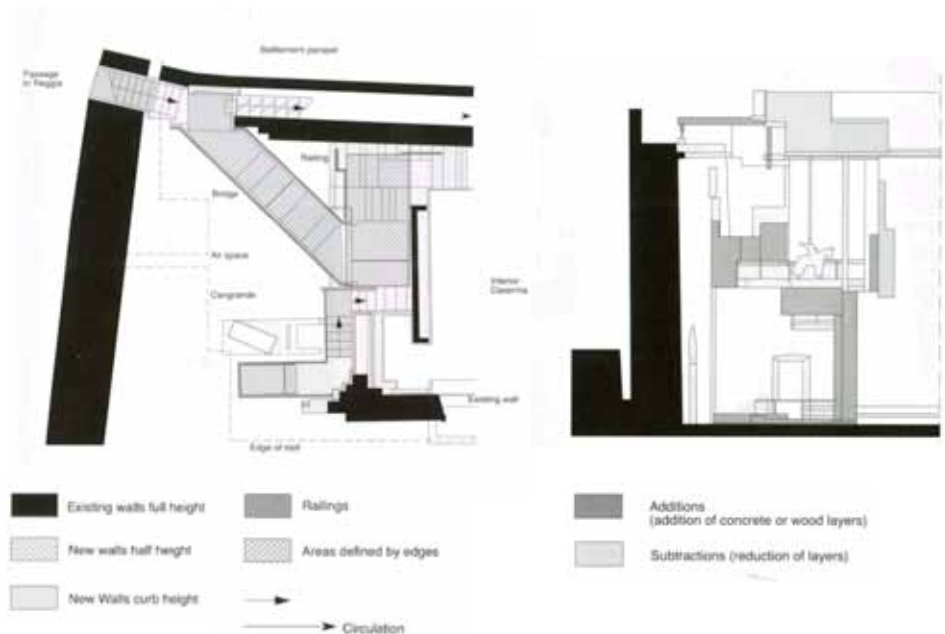
6.30 Carved away space displaying the 'Cangarde' statue balance on a platform

6.31 Image of underside of bridge

6.32 Detail Image

6.33 Detail plan of Bridge and stairs

6.34 Section showing the layering of old and new within the space







6.35 View showing new addition which sits onto of existing brick of the original building

6.36 New Window formed by cutting away the brick facade of the original building

6.37 The carved away grotto like plaza.

6.38 Section of building (opposite page)

6.39 Plaza Plan (opposite page)

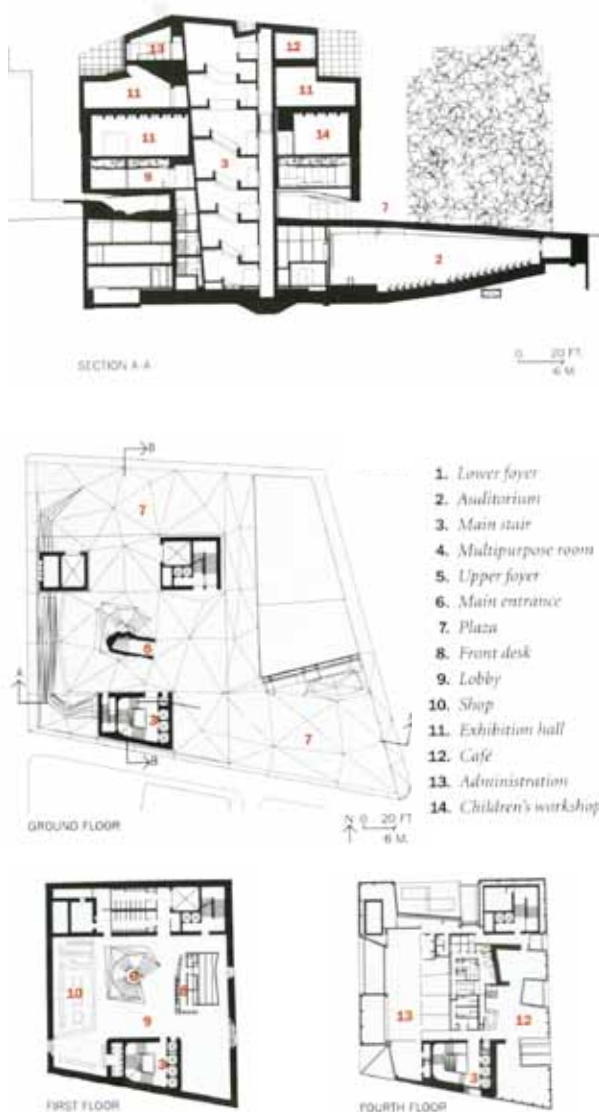
6.40 Plan (opposite page)

6.41 Plan (opposite page)



## Precedents: Repurposed Building

“Caixa Forum” - 2006  
Madrid, Spain  
Herzog & de Meuron



“The CaixaForum” cultural centre was designed by the Swiss architects, Jacques Herzog and Pierre de Meuron. The design incorporated an existing power plant building from the 1900’s (Figure 3.35). Even though the power generation station was responsible for providing electricity to Madrid, this garnered little influence for historical protection. The Heritage Commission approved its partial demolition because of the project’s public benefits and design merits<sup>21</sup>. A gas station located beside the power-plant site was purchased by the La Caixa Foundation after the encouragement of the architects. The purchase of this adjoining site allowed the addition of a public plaza, giving the site a public face on the Paseo del Prado. The Paseo del Prado is a main public thoroughfare that is home to many of Madrid’s Museums, including Rafael Moneo’s 1992 Thyssen-Bornemiszs Museum and Jean Nouvel’s Reina Sofia Museum.

The original building was cut into and carved away to create both new interior spaces and also new relations to the surrounding context of the city (Figure 3.36 & 3.37). The new building appears as if it were suspended above the plaza. The bottom floor of the existing building was cut away to create a shaded public plaza and provides an entrance into the building (Figure 3.38 & 3.39). The architects used material and form in this space very carefully. The compression of this space is emphasized by a sloping site which creates the illusion that the entrance disintegrates into the ground plain. The folded and reflective surface of the plaza ceiling creates the feeling of a grotto.

The original building itself is merely a decorative shell. New openings were cut in the brick facade which do not correspond with any of the original openings. These original openings were filled with brick salvaged from

<sup>21</sup> David Cohn, “Caixa Forum, Spain.” *Architectural Record* vol 196 (2008), 109.



demolition of other areas of the building<sup>22</sup>. A two-storey addition sits on top of the existing structure, this addition was clad in cast-iron panels (Figure 3.42). The material was chosen for its' similarity to the red brick of the original building. The architects wanted, "...a material that (had) the same texture, the same soft surface and the colour."<sup>23</sup>, but that would provide a heaviness to counter the seemingly missing bottom floor. Corten steel was originally considered for a cladding material but the architects preferred the natural oxidation of the steel plates.

Suspending the original building above the plaza was a complicated structural process. The existing brick walls of the original building had to be integrated into the new structural system. This involved pouring a layer of concrete behind these walls to tie them back to the vertical structure of the concrete elevator and stair cores.

The design of "The Caixa Forum" seems to ignore much of the architectural value that the original power plant could have provided. No effort was made to preserve any of the interior of the building such as existing floors, rooms, or existing openings. The project has been described as a skinned and gutted animal, the original building transformed into a "*pelllike veneer*"<sup>24</sup>.

22 David Cohn, "Caixa Forum, Spain." *Architectural Record* vol 196 (2008), 111.

23 *Ibid.*, 112.

24 *Ibid.*, 109.

6.42 View from the plaza





6.43 State of barn before the renovation

6.44 Ramp and stair way which extend from the exterior

6.45 Site Plan (right)

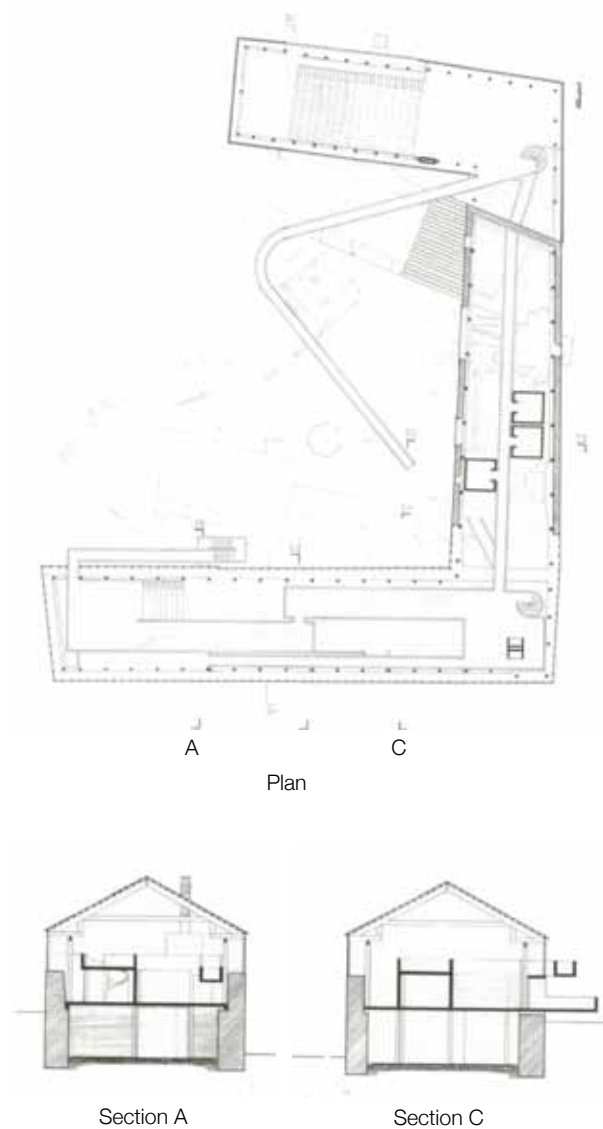
6.46 Section A (right)

6.47 Section B (right)

6.48 Detail image of window



**Precedents:  
Historic Renovation**  
“Hedmark County Museum” - 1967  
Hamar, Norway  
Sverre Fehn



The Hedmark Museum” is part of a late-twelfth century bishop’s manor in the town of Hamar, Norway. At the time of the design intervention the barn that would eventually house the museum had not been in use for more than a hundred years. The site was in so much disrepair that the town of Hamar decided it would have to be demolished unless immediately repaired (Figure 3.43). Sverre Fehn’s proposal was to use the barn structure as the museum and to make it a “cold” museum to cut down on heating and cooling costs.

Fehn left the ruined barn in a similar “ruined” state to that in which he found it (Figure 3.44). He focused on stabilizing the walls to make them structurally sound without repairing them. A new circulation system of ramps and platforms wove through the existing buildings, in clear contrast to the existing and essentially untouched buildings (Figure 3.45). In Fehn’s words this was to make, “...the clear intention of allowing all paths and marks in the ‘landscape’ to continue their now slowed decay.”<sup>25</sup>

The original structures were respected and Fehn allowed them to guide his design process. He used the thick stone walls of the barn as structure (Figure 3.46 & 3.47). Openings in the walls that had naturally occurred from years of decay and disrepair were kept and used as windows, attaching sheets of glass in front of them (Figure 3.48). There was no attempt on the architect’s part to restore the barn to a specific time period, rather he worked with the process of disintegration, merely slowing its decay<sup>26</sup>. The use of stark

<sup>25</sup> Per Olaf Fjeld, *Sverre Fehn: The Pattern of Thoughts*. (New York: The Monacalli Press, 2009), 112.

<sup>26</sup> Per Olaf Fjeld, *Sverre Fehn: The Thoughts of Construction*. (New York: Rizzoli, 1983), 130.

material contrast between the heavy stone of the existing building and the lighter glass and wood of the new addition “...slows the distance between past and present, but neither object nor barn is frozen.”<sup>27</sup>

Sverre Fehn emphasized that his intention was,

*“... not to continue destroying what is already destroyed. The barn was rotten, a sad creature, this enormous barn that still has something of the bishops manor in its spirit. I looked upon it as an old horse, a place with an animal-like character. When things die, new ideas are born. The tree’s leaves fall rot and disappear. For me this building’s history, all the marks on the ground that should not be touched, were what should be emphasized and it was this throughout that gave birth to the ramps and the bridge.”<sup>28</sup>*

The Hedmark museum housed archeological artifacts from the historic site. Archeology had fascinated Fehn in its ability to emphasize the importance of mundane everyday object. The way in which these objects were displayed was very important to Fehn. He meticulously researched the background and story behind each object that was to be displayed in order to create an appropriate presentation space for each (Figure 3.49). According to Fehn, the way in which an object is displayed is the way it communicates with a space and this is the way the viewer of it can communicate with it (Figure 3.50).

The museum at all scales deals with the juxtaposition between past and present in a very natural way. Not trying to invoke or preserve one particular time period but rather holding in unity the many layers of time and memory that exist on the site. This approach is in stark contrast to a later project that was completed on the same site in 1998 by Lund + Slaatto Architects. Fehn had left the ruin of a cathedral that existed on the site, unprotected and exposed to the elements, to decay naturally. However in 1998, a protective glass structure was built by Lund + Slaatto to protect the ruin. This project deals with preservation of the past in a completely different way. While Fehn focused on slowing the natural decay process, the Lund + Slaatto project used technology to try to stop it completely.

27 Fjeld, Per Olaf. 2009. *Sverre Fehn: The Pattern of Thoughts*. New York: The Monacalli Press. 116.

28 Ibid.,116.



6.49 Image of display

6.50 Image of display





## Precedents: Repurposed Building Conclusion

The historic renovation projects reinterpret the use and look of an original building, preserving parts, demolishing others to create a new building which is a collage of different time periods and materials. These projects not only have the ability to drastically change how a building looks but they can change the building's relationship to its site and context. By changing entrances, carving out new open spaces and filling in others, a building's relationship to its context changes, this is apparent in the larger public projects but can also happen at a smaller scale in residential projects such as the Gulgan house. The way in which the house is related to its sloping site is drastically changed by a simple extruding of the original form of the house.

Formal qualities such as composition and materiality also play an extremely important role within these projects, helping to define a difference between past and present. Often these projects look to composition to highlight the passage of time these buildings have witnessed and the memories they embody. Cutting into spaces or applying new materials that accentuate the joint between new and old.

Combining old and new structures into new hybrid buildings creates spaces that act as symbols of past, present and future within a single physical artifact. These spaces are unique in that they use existing buildings made for other purposes and manipulate the design to provide a space for a new and completely different purpose. At the same time they act as memory vessels, telling the story of the past without this being the projects sole purpose.

The designers of these repurposed buildings have all made careful choices in terms of selecting what to preserve, demolish, add, change and embellish. The issue of preservation within architecture is a contentious one. Some see historical restoration and preservation of the original building as the only way to respect the architecture of the past. However, the projects presented clearly show that this is not the case. Through selective and sometime drastic interventions, new life can be given to buildings that no longer serve their original purpose. These buildings develop new relationships with the sites, neighbourhoods and cities in which they exist.

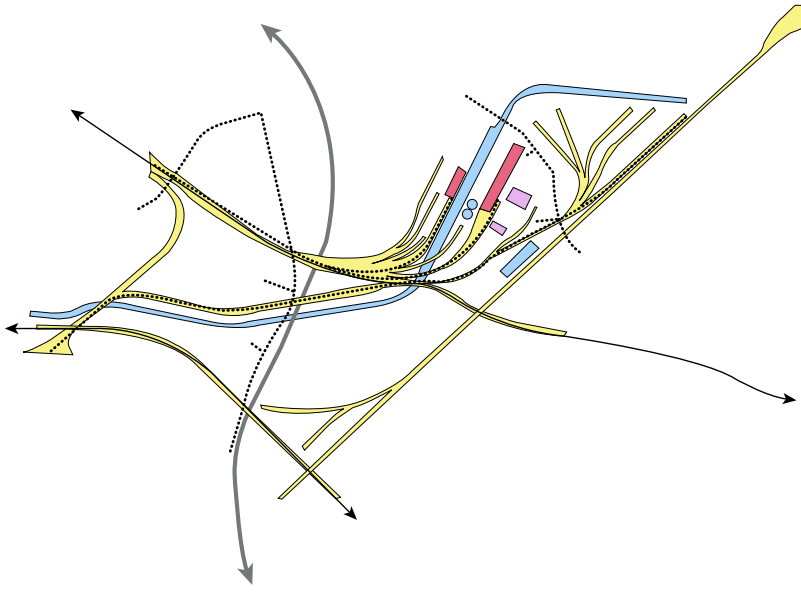
The New York Central Terminal has yet to be looked at in this manner. By broadening thinking beyond the structures that classic historical restoration imposes onto the design of a project, a wider range of new possibilities are created for the Terminal. Not only can it have a unique physical presence highlighting existing elements of the building through new materials, but the way in which the building is used and circulated through can be drastically reworked. Creating a new type of building, retaining traces of the old but functioning in a completely different way. Allowing it to make a meaningful and relevant contribution to the time and context in which it exists.

6.51 Circulation & Program Diagram

6.52 Four Elements of Visual Connections

6.53 View of event taking place in the blast furnace park (opposite page)

6.54 View of chemical channel re-used as a water element within the park (opposite page)

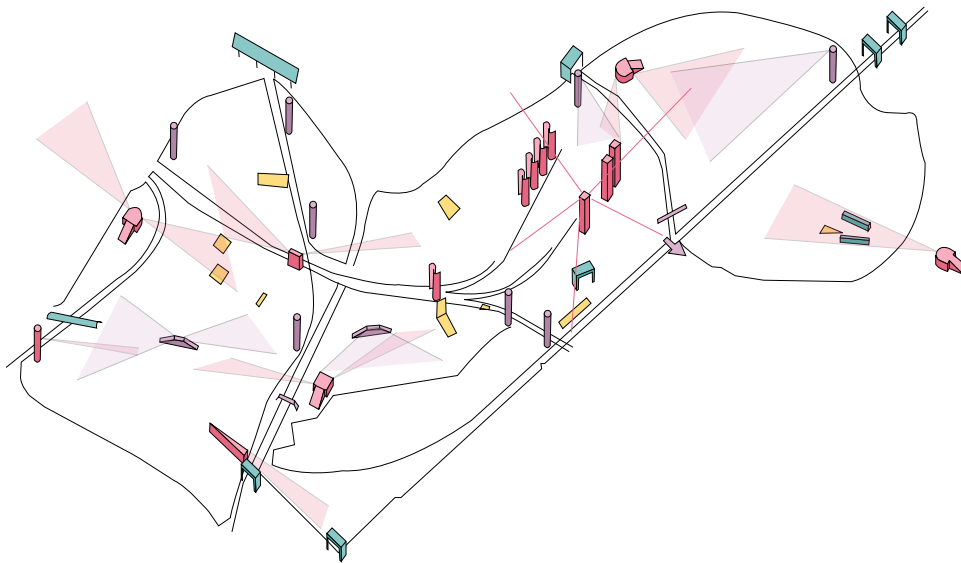


**Park Programme**

- Railway Parks
- Water Park
- Bunker Gardens
- Turbine Hall

**Circulation**

- Active Rail Lines
- Highway
- Pathways



**Visual Connections**

- Turbines
- Bunkers
- Industrial Element

**Fucntional Connections**

- Towers
- Ramps
- Bridges

**Urban Connections**

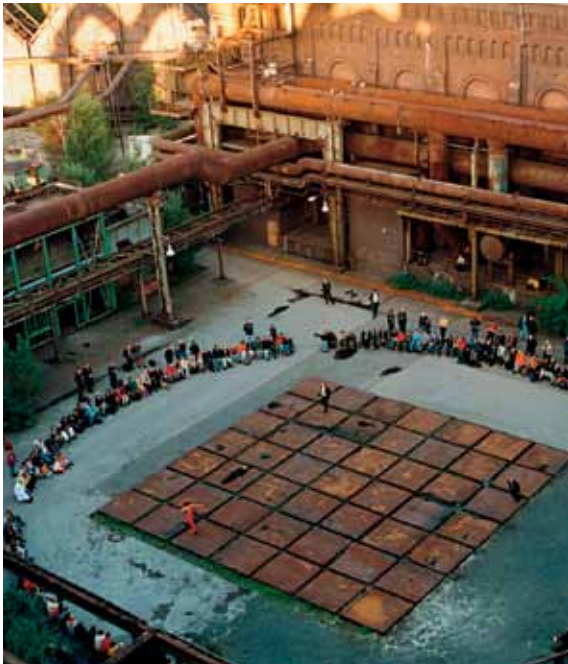
- Gates
- Bridges
- Tunnels

**Conceptual Connections**

- Gardens

## Precedents: Reintegrated Infrastructure and Planning

“Emscher Landschaft Park”-1985  
Duisburg-Nord, Germany  
Latz + Partner



The Emscher Landschaft Park, Duisburg-Nord, Germany, was the former site of the Meiderich Plant, a steel production facility that operated from 1902 to 1985. Latz + Partner designed a scheme for the park (Figure 3.56):

*“... to avoid creating an impression of a complete and objective entity. They were very much concerned about linking independent structural layers in a process-driven approach.”<sup>29</sup>*

The park is divided into four components, which relate to their original function in the plant, then the landscape was designed to compliment these components (Figure 3.57).

The “Blast Furnace Park,” located in the heart of the complex and in the existing location of the blast furnaces, acts as a public piazza, a space for people to gather and for performances to occur (Figure 3.58). A floor of iron plates, once used to cover the steel casting moulds, was created.

The “Water Park” uses the old wastewater canal and transformed it into a fresh water canal fed by rainwater (Figure 3.59). The water in the canal uses 80 to 100% of the rainwater collected from roads, roofs and squares within the complex. The design also integrated the use of treatment and settling basins for water management and conservation. The use of the concrete canals and basins as the park’s water feature, versus a meandering river, was done intentionally to pay homage to the plant’s industrial history. Latz describes the canal as an,

*“... artifact aiming to introduce natural processes in a devastated and perverted situation... it is the most natural and at the same time the most artificial system.”<sup>30</sup>*



The “Rail Park” runs through the park as a linear  
<sup>29</sup> Udo Weilacher, *Syntax of Landscape: The Landscape Architecture of Peter Latz and Partners*. (Basel: Birkhauser, 2008, 111.

<sup>30</sup> *Ibid.*, 131.



railway space. Some lines that served the factory were not in use, however, others remained in use serving areas outside the site (Figure 3.60). Latz created the 'rail harp' an intermeshing of tracks and earthwork. He used the existing form of the tracks to shape the flow and movement of visitors to the site by changing the sectional relationship of the tracks to create a series of earth formed ramping pathways.

Lastly, the "Bunker Garden" is located in the sintering plant (Figure 3.61). These large concrete rooms were used to create a variety of walled gardens using plants that flourish in the existing soil. A new pathway has been added so that visitors can look down into the gardens from above.

Latz not only used the function of the plant to inform the difference spaces within the park but he also choose to keep existing vegetation that had naturally grown in the industrial landscape. Unique micro climates created by the space spurred a variety of extraordinary plant varieties. Using the industrial aesthetic and process as a way to guide design and integrate technology into the environment can thus be considered as a first step in the concept of life cycle design.

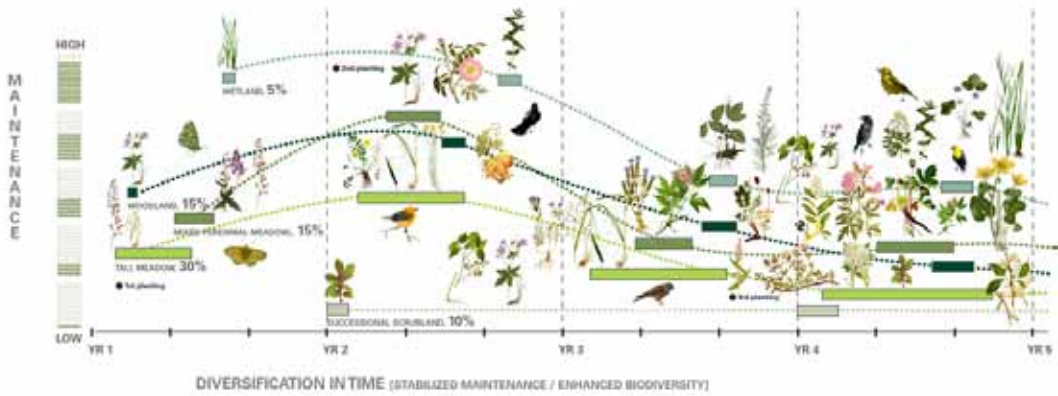
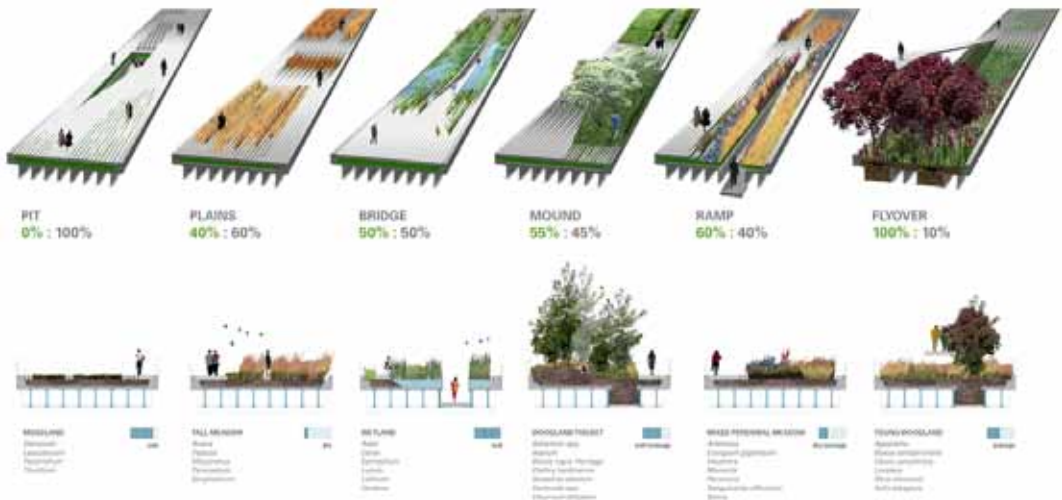
6.55 View of the bunker garden

6.56 View of Railway Park



6.57 Section Diagram

6.58 Flora & Fauna Lifecycle Diagram



## Precedents: Infrastructure and Planning

“The High Line”-1985  
New York, USA  
Diller, Scofidio + Renfro & Field Operations

The High Line was an elevated railway which ran along the west side of Manhattan. From 1929 to 1980, it served factories on the west side of the city. The rail line lay unused from 1980 to 2006. During these years of abandonment the rail lines became home to a unique landscape. Over time, trees, grass and flowers grew up along the elevated railway creating an urban jungle unseen by most within the city. The structure was set to be demolished in 1999, however strong opposition by the public helped to initiate a re-zoning process from railway to interim trail use<sup>31</sup>.

In 2006, construction of the park started. The design was a collaboration between Field Operations and Diller Scofidio + Renfro. The design consisted of a linear park with a series of different landscape experiences and entry points along the High Line (Figure 3.62). The different landscape conditions were heightened versions of the natural conditions already present on the High Line. The design stressed an evolution of plant and animal life as well as development of program over time (Figure 3.63). Plant life would naturally diversify, while at the same time maintenance levels would be reduced as natural systems took over. The design aimed to provide,

*“...flexibility and responsiveness to the changing needs, opportunities, and desires of the dynamic context, the project will remain perpetually unfinished, sustaining emergent growth and change overtime.”<sup>32</sup>*

The High Line program was allowed to diversify and increase over time, integrating a variety of activities. The design also focused on restoring iconic industrial details and

<sup>31</sup> The High Line. (2010) <http://www.thehighline.org>

<sup>32</sup> James Corner ed. *Designing The High Line: Gansevoort to 30th Street*. (New York: The Friends of the High Line, 2008,) 31.

integrating other industrial elements in new ways to give the users unique and interactive experiences (Figure 3.64). The designers also took advantage of the unique elevated location to make “events” out of seemingly mundane goings on within the city. For example, the 10th Avenue Square at 17th Street allowed users to inhabit a ramping theater-like space with a glass “screen” onto the city street below, thus the traffic of Manhattan becomes an event to be seen (Figure 3.65). Simple changes in material, elevation of the path, and plant life allow for a variety of smaller park experiences within the larger park network, drawing upon the unique landscapes and architectural spaces that already existed within the High Line.



6.59 View of the Chelsea Grasslands

6.60 Aerial view of the High Line





6.61 Aerial photograph of Detroit with vacant lots blacked out

6.62 Detail of the Vacant Land Study completed by the Detroit Planning Commission from 1989-90



## Precedents: Infrastuture and Planning

“Decamping Detriot”-2002  
Detriot, Michigan, USA  
Charles Waldheim & Marli Santos-Munné

Decamping Detroit was a theoretical project for the planned abandonment of the city of Detroit, Michigan, purposed by Charles Waldheim and Marli Santos-Munné (Figure 3.67). Based on a vacant land study, done by the City of Detroit’s Planning Commission, the project identifies seven territories within the city that are over 70% vacant land and proposes scenarios by which they can be reconstituted (Figure 3.68).

The design in no way proposed to re-build, but rather planned for the “...staging of ex-urban landscapes of indeterminate status.”<sup>33</sup> It proposed four stages for the abandonment of Detroit: Dislocation, Erasure, Absorption and Infiltration.<sup>34</sup>

Dislocation, the first phase, involved the voluntary relocation of residences, dislocation of services and capping of utilities. Once fully evacuated, these zones would serve as connection points between still viable portions of the city.

The second phase, Erasure, accelerated the arson of abandoned residences within the city. Scheduling of large scale regulated burns, in combination with demolition of selective portions of the city. The release of native wildlife and the reintroducing of native plant species, hence speeding the natural decay of the city’s fabric.

The third phase of the project, Absorption, proposed an ecological reconstruction of zones through tree farming – softwood farms would require little maintenance and could be used as a resource in the future. Selective flooding would also be introduced, using existing infrastructure for the collection and supply of the regions’ fresh water, this flooding could be used as a way of cleaning contaminated soils.

<sup>33</sup> Georgia Daskalakis, “Decamping Detroit” *Stalking Detroit* ed. Georgia Daskalakis et al. (2002), 113.

<sup>34</sup> Ibid. 112-114.

The last stage, Infiltration, was speculative, focusing on the future growth and de-commissioning of zones. It introduced new programme which responded to collective demands placed on the landscape by its users. Decamping Detroit focused on open-ended process driven design, rather than an overall master plan approach, allowing for a flexible response to the problem of a shrinking city within a growth driven society.

Decamping Detroit provides a unique design solution which embraces the urban decay and abandonment of the city. Unlike traditional planning responses which deal with these issues through redevelopment, or adaptive re-use. The project harnesses the natural process of the decaying cities, and uses it as a strategy to plan for dense pockets of the city as well as un-built pockets of the city, where new uses not typically seen in urban fabric can be applied. The project can be seen as a radical but positive replanning of the city. One which removes already blighted areas. However, it can also be seen as highly insensitive to residents who still live in the areas of proposed 'decamping', and also to the history of the city itself. Detroit's urban abandonment is not on the typical scale that has been seen in previous generations of American cities, thus a new and radical design approach seemed the only one appropriate to deal with the problem.



## Precedents: Infrastructure and Planning Conclusion

Large scale infrastructural and planning projects dealing with abandonment, shifting uses of neighbourhoods and shrinking urban cores have become more prevalent in recent years. Shrinking industry and a shift in manufacturing, primarily to Asia, has resulted in infrastructure and building complexes that are under-used or obsolete. These project provide ways to use the obsolete infrastructure to guide new designs and enhance them, rather than removing it.

Industry had shaped cities not only in their industrial portions, but in all areas. Working class residential neighbourhoods have relied on manufacturing industries to maintain their vibrancy and allow people to live in the urban core of the city, because of their close location to well-paying jobs requiring little education. As manufacturing moves overseas there has been a flight of many urban residents to suburban areas on the edge of cities. Large areas of the city are now vacant, leading to a lack of critical mass to deliver utilities, services and community support.

The projects reviewed, have accepted areas of the city and infrastructure cannot simply be rebuilt and used for their original purposes, but rather take advantage of the unique possibilities for revitalization. Large areas of the cities are available to be re-planned and for new uses, focusing on large scale urban designs. These projects seek to integrate a process and system driven design technique that can be applied to planning. This allows for the designs to be flexible and to feed off cues from the original design. Forms and uses of obsolete infrastructure or planning can help to inform new designs. This provides traces of the past in the current design. Envisioning the city as a layering of different designs that build upon each other rather than a series of blank slates.

The New York Central Terminal is ingrained within Buffalo's manufacturing and industrial past. The rail lines that run through the Terminal shaped the development of the city. They allowed Buffalo's steel and grain industries to become among the largest in the world and to disperse these goods throughout the nation. Like many of the projects presented, the Terminal site includes obsolete building types, unused infrastructure and sits within an urban area that is largely abandoned. The inherent qualities of the Terminal however can serve to inform its new design. The Terminal was a place of passage and dealt with the movement of goods. In the same way the new design seeks to deal more metaphorically with the idea of passage from a manufacturing to a new future. Creating a new Terminal design which takes advantage of the site's grand scale and importance as an urban building, to re- envision it as an urban hub that spurs changes within the neighbourhood and city.





## Precedents Conclusion

All of the precedents investigated, in some way address memory and provide relevant new meaning to the existing buildings and projects. Through their designs they prove that, *“As a physical support of memory, architecture performs an important function in cultural evolution.”*<sup>35</sup> Even if a building is abandoned or decaying it still embodies memories and plays an important symbolic role within the city.

*“Material objects as much as social and cultural practices are transmitted partly modified from generation to generation. Therefore, they can all be considered supports of a permanently renewed social memory.”*<sup>36</sup>

All of the existing buildings had in some way become irrelevant. They no longer served the purpose for which they were once constructed or the purpose for which they were built no longer had relevant meaning within the current culture. Buffalo’s New York Central Terminal has also lost its relevance within the city. Buffalo was once a manufacturing and railway hub, as manufacturing dwindled and the city shrank, the Terminal’s relevance to the city was lost. It is clear however, these projects still play an important role as a physical artifact within the collective memory of the city, as does Buffalo’s New York Central Terminal.

The differences in scale, type and approach in the projects presented, frame a process driven, multi-scale design approach for New York Central Terminal, the Broadway and Fillmore neighbourhood and finally the city of Buffalo. By preserving existing architecture instead of demolishing it, these projects create a dialogue between the past and

<sup>35</sup> Luis Fernandez-Galiano, *Fire and Memory: on architecture and energy*, trans. Gina Carino (Cambridge, MA: The MIT Press, 2000), 70.

<sup>36</sup> *Ibid.*, 71.

present. They represent a new way of viewing historical pieces of architecture. By changing the interaction between the viewer and the object, a nostalgia for the past is created and also the fragile mortality of the city is made apparent. The state of ruin that many of the projects were originally found in, is in some way preserved. This preservation of ruin can give buildings new monumental meaning within cities and their citizens’ minds. These spaces provide,

*“representations of the past (which) act more as a mirror of present culture...than as depictions of complex histories, or even as the acknowledgement of the unknown forgotten.”*<sup>37</sup>

The projects preserve, demolish and add to an existing design, balancing these techniques in order to create new forms of architecture unique to our time. They tell complex stories without over simplifying them, they act as repositories of history that foster a process of discovery and re-envisioning of future possibilities.

<sup>37</sup> Elisabeth Clemence Chan, “What roles for ruins? Meaning and narrative of industrial ruins in contemporary parks.” *Journal of Landscape Architecture*. (Autumn 2009), 30.



Appendix B  
**Terminal Design  
Drawing Set**





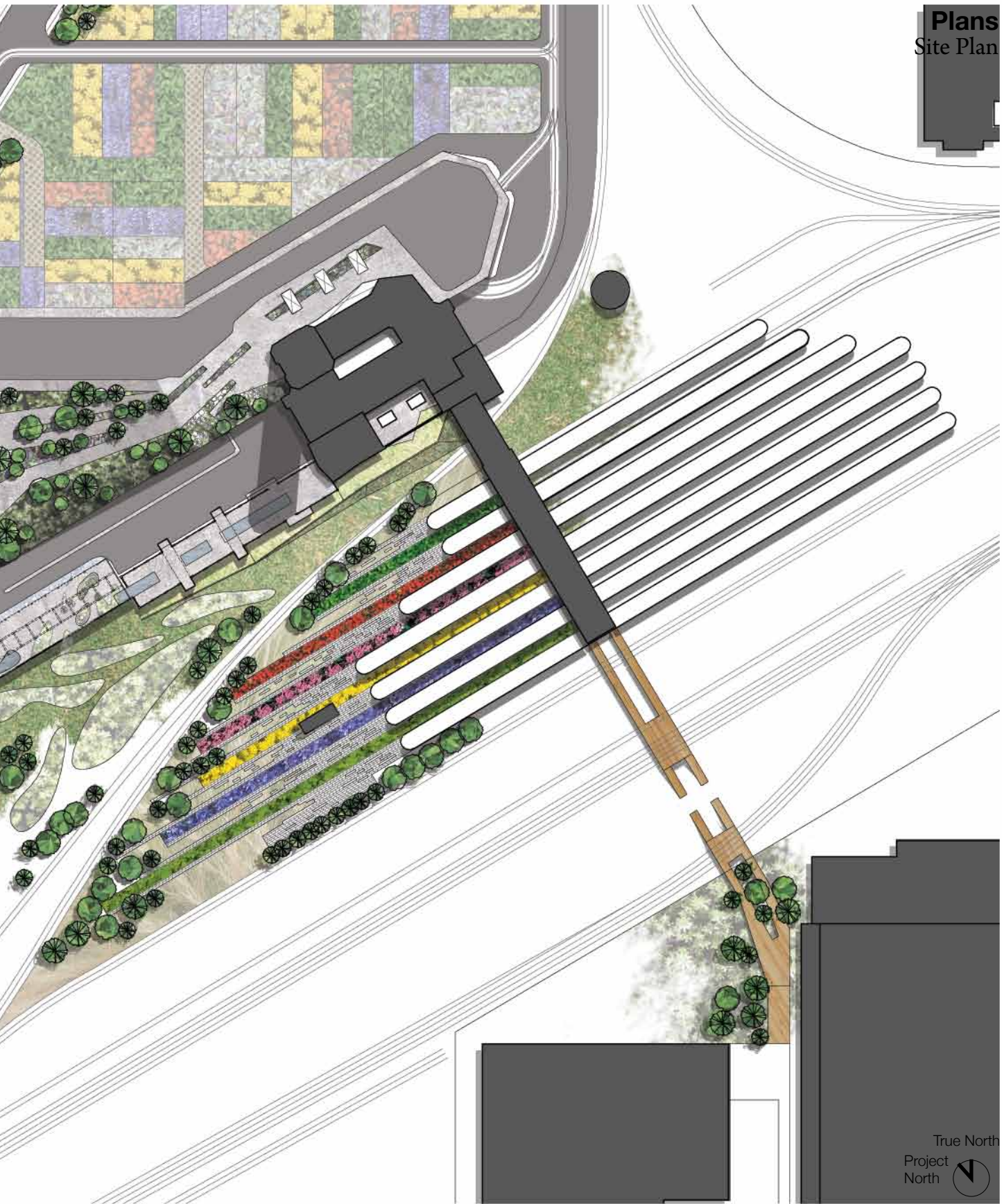
## Plans



7-1 Rendered Site Plan,  
Scale: 1:3500m



Plans  
Site Plan

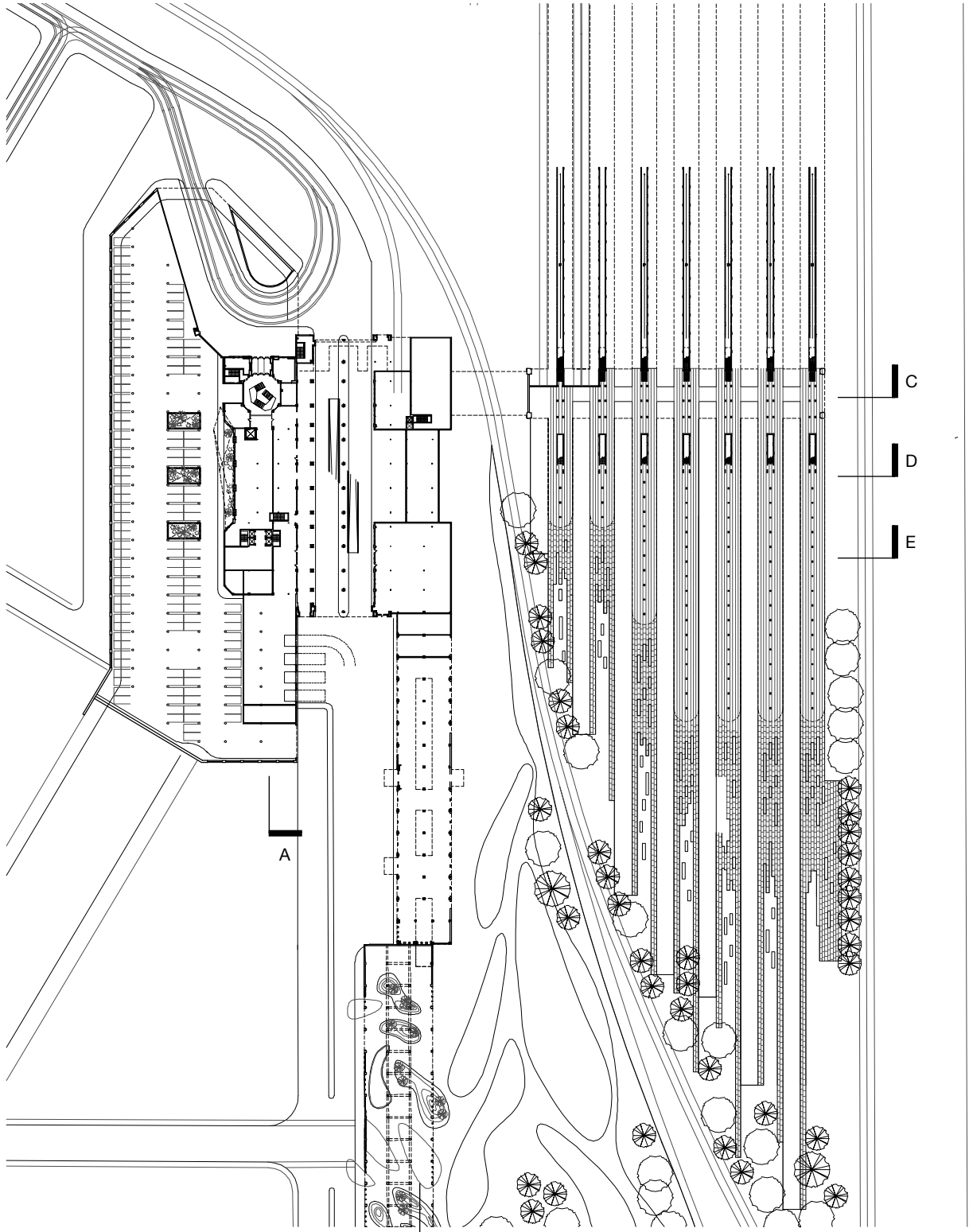


True North  
Project  
North



# Plans

## Track Level Plan



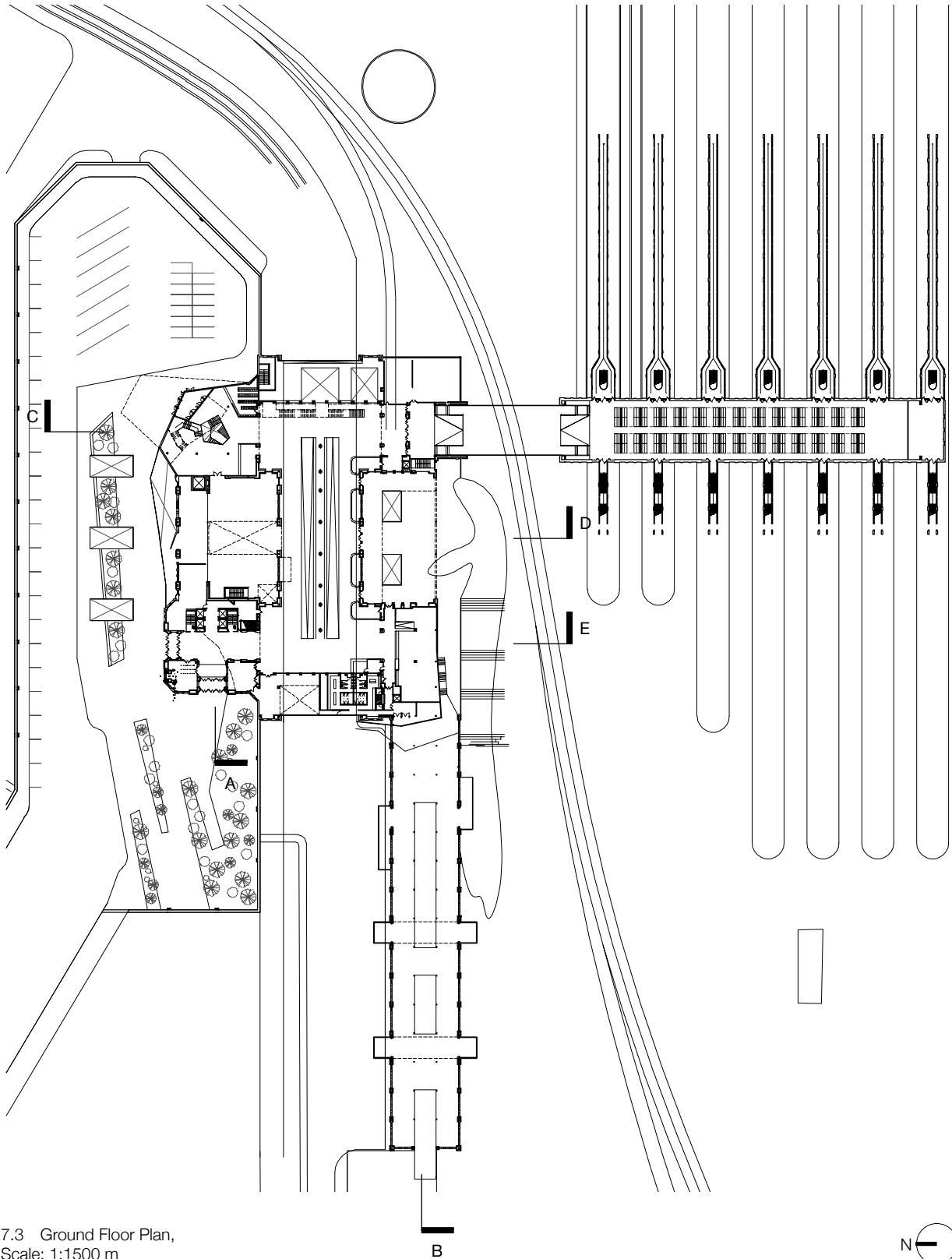
7.2 Track Level Plan,  
Scale: 1:2000 m

B



# Plans

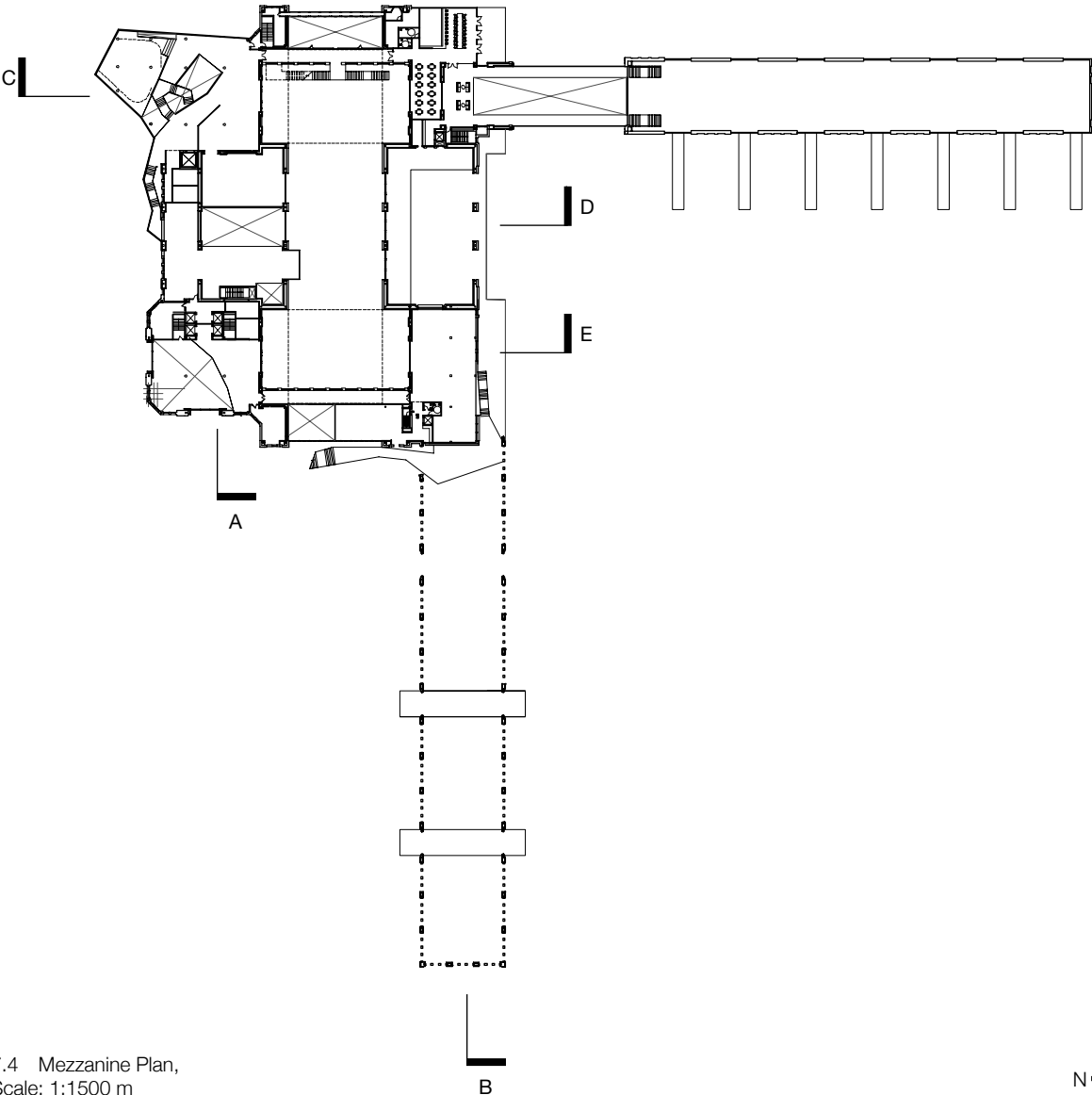
## Ground Floor Plan



7.3 Ground Floor Plan,  
Scale: 1:1500 m



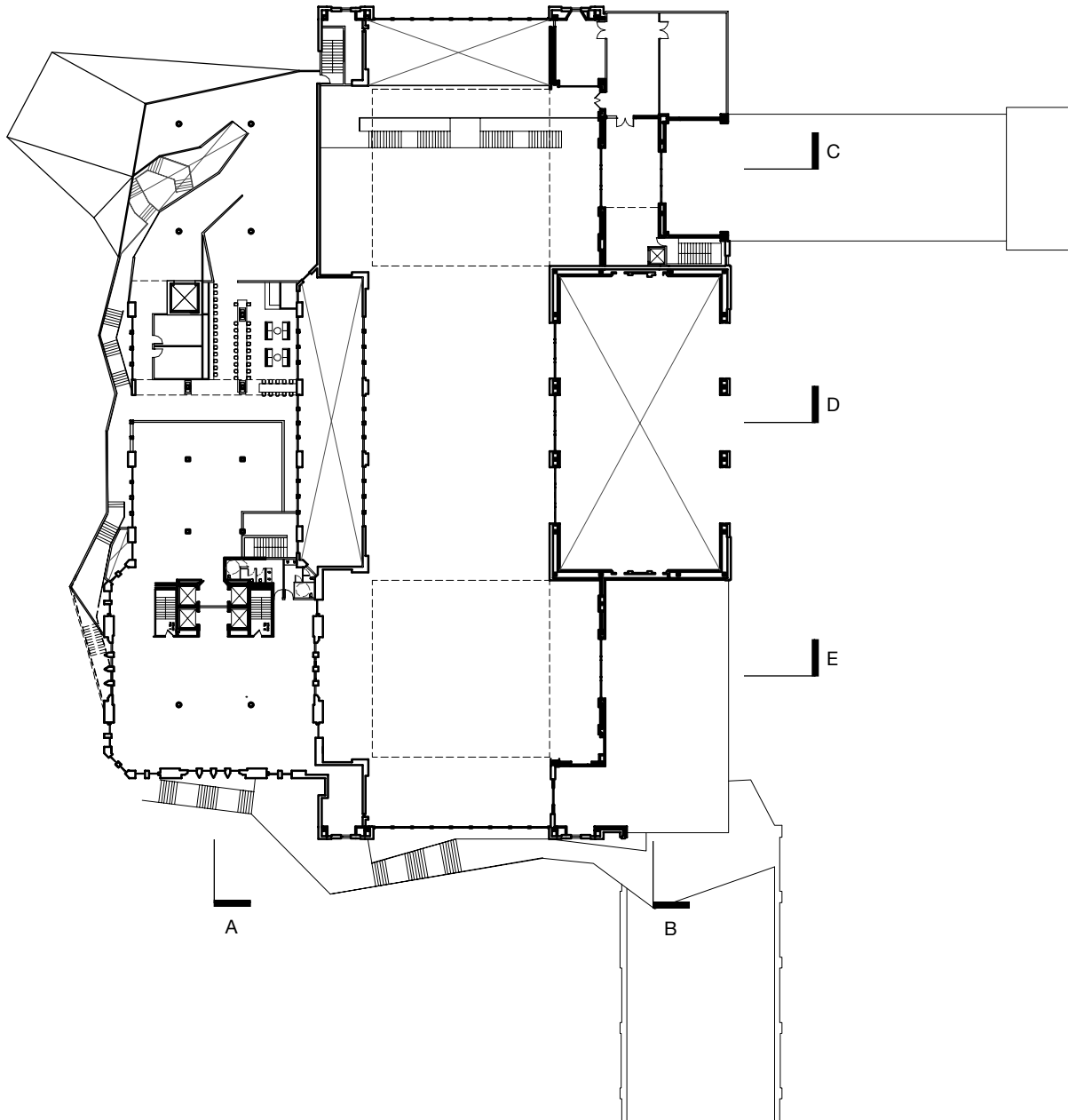
**Plans**  
Mezzanine Plan



7.4 Mezzanine Plan,  
Scale: 1:1500 m

# Plans

## 3rd Floor Plan

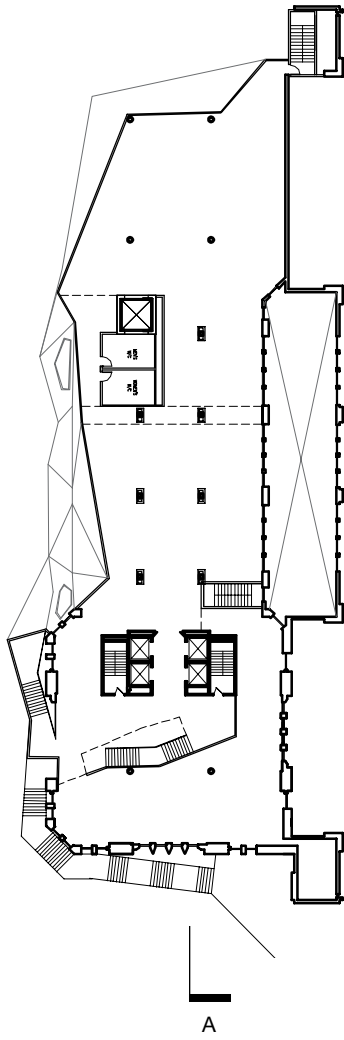


7.5 3rd Floor Plan,  
Scale: 1:750 m

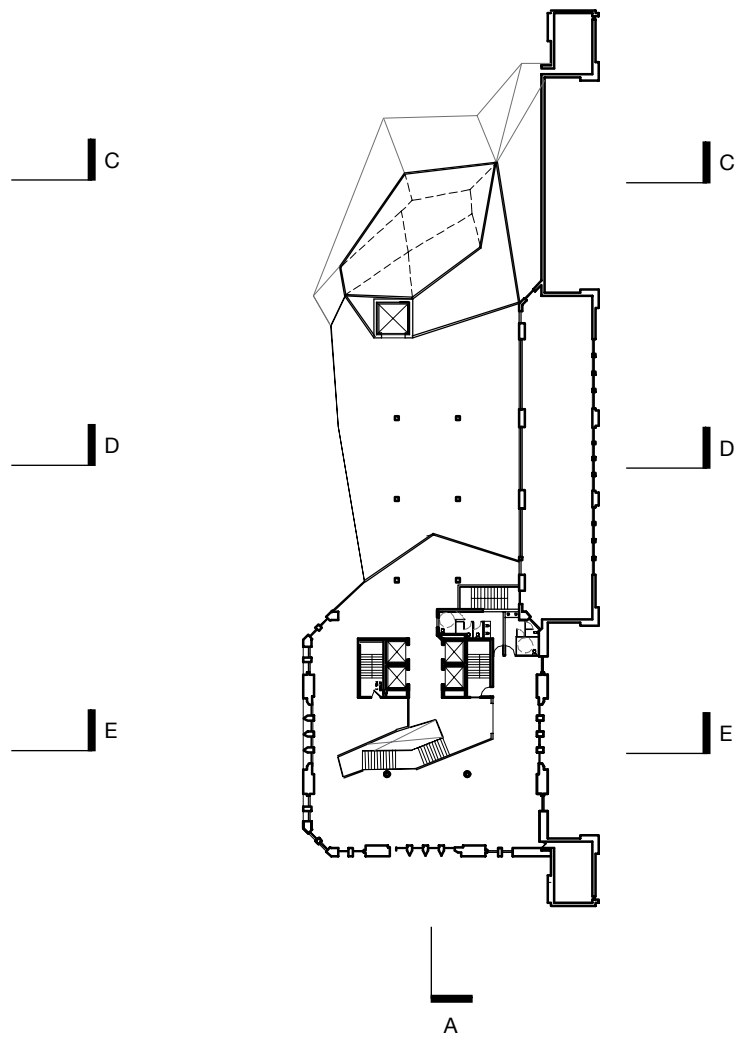


# Plans

## 4th & 5th Floor Plans



7.6 4th Floor Plan,  
Scale: 1:750m

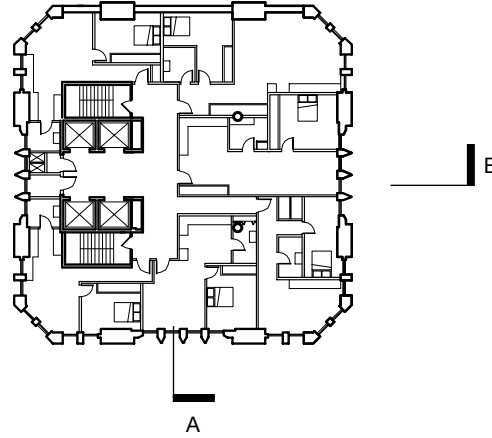


7.7 5th Floor Plan,  
Scale: 1:750m

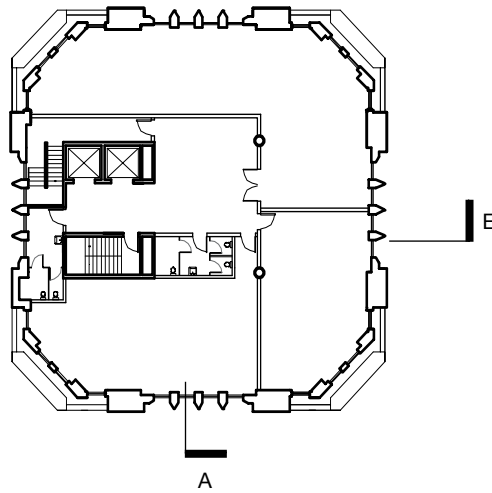


# Plans Tower Plans

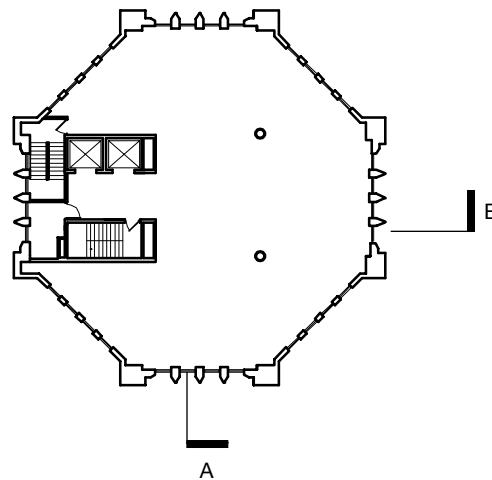
7.8 6th Floor Plan,  
Scale: 1:500 m



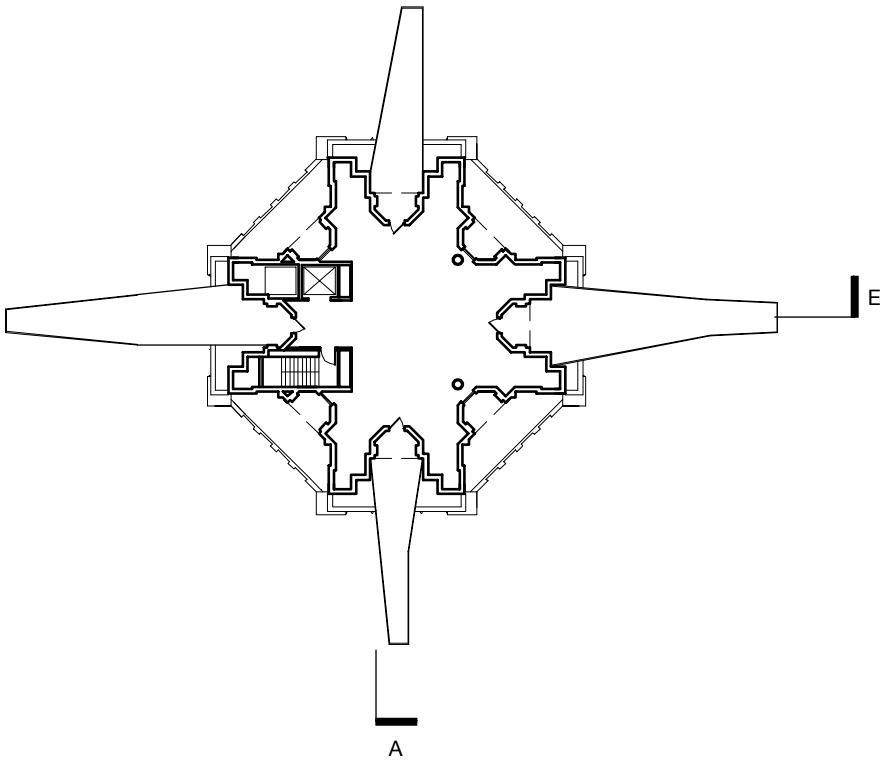
7.9 13th Floor Plan,  
Scale: 1:500 m



7.10 16th Floor Plan,  
Scale 1:500 m



**Plans**  
18th Floor Plan



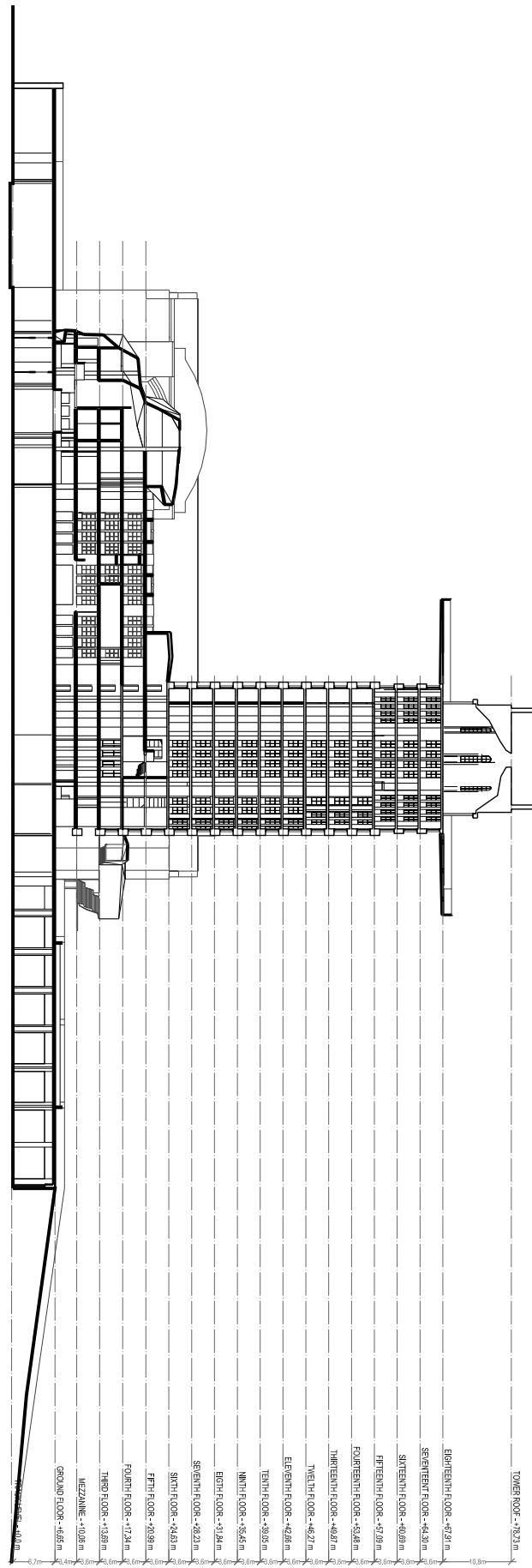
7.11 18th Floor Plan,  
Scale: 1:500 m





## Sections

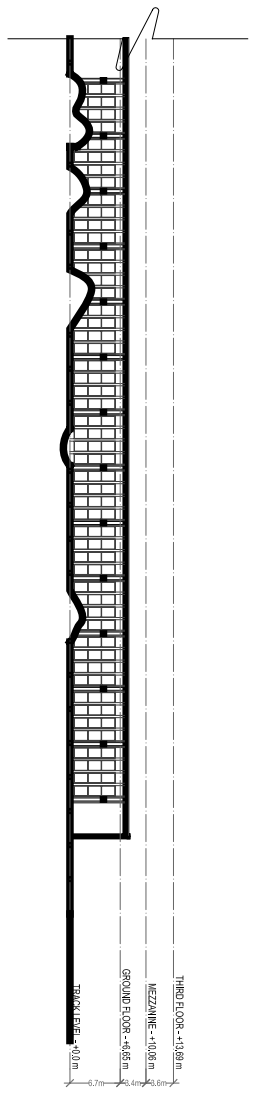
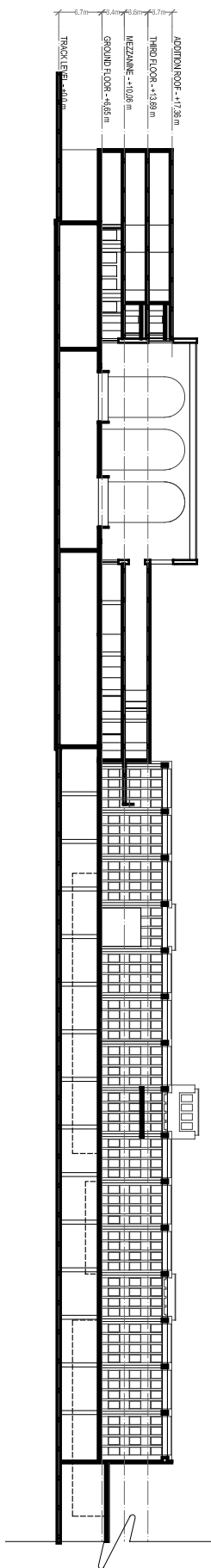
# Sections Section A



7.12 Section A,  
Scale: 1:1000 m

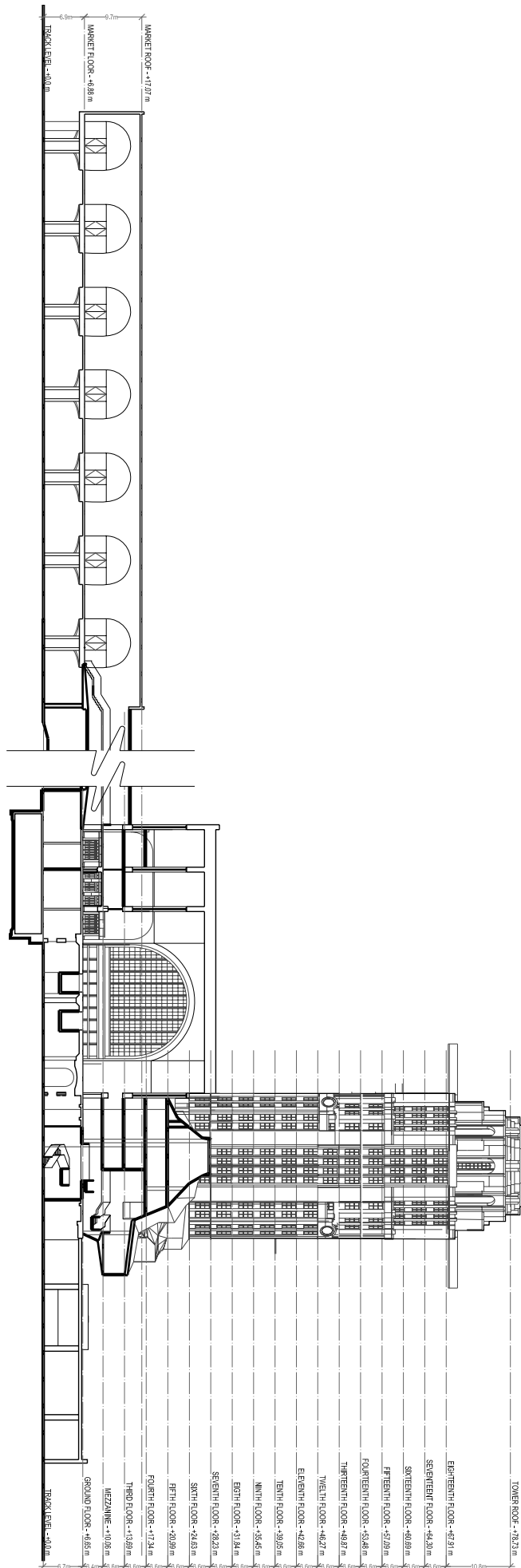
# Sections

## Section B



7.13 Section B,  
 Scale: 1:1000 m

# Sections Section C



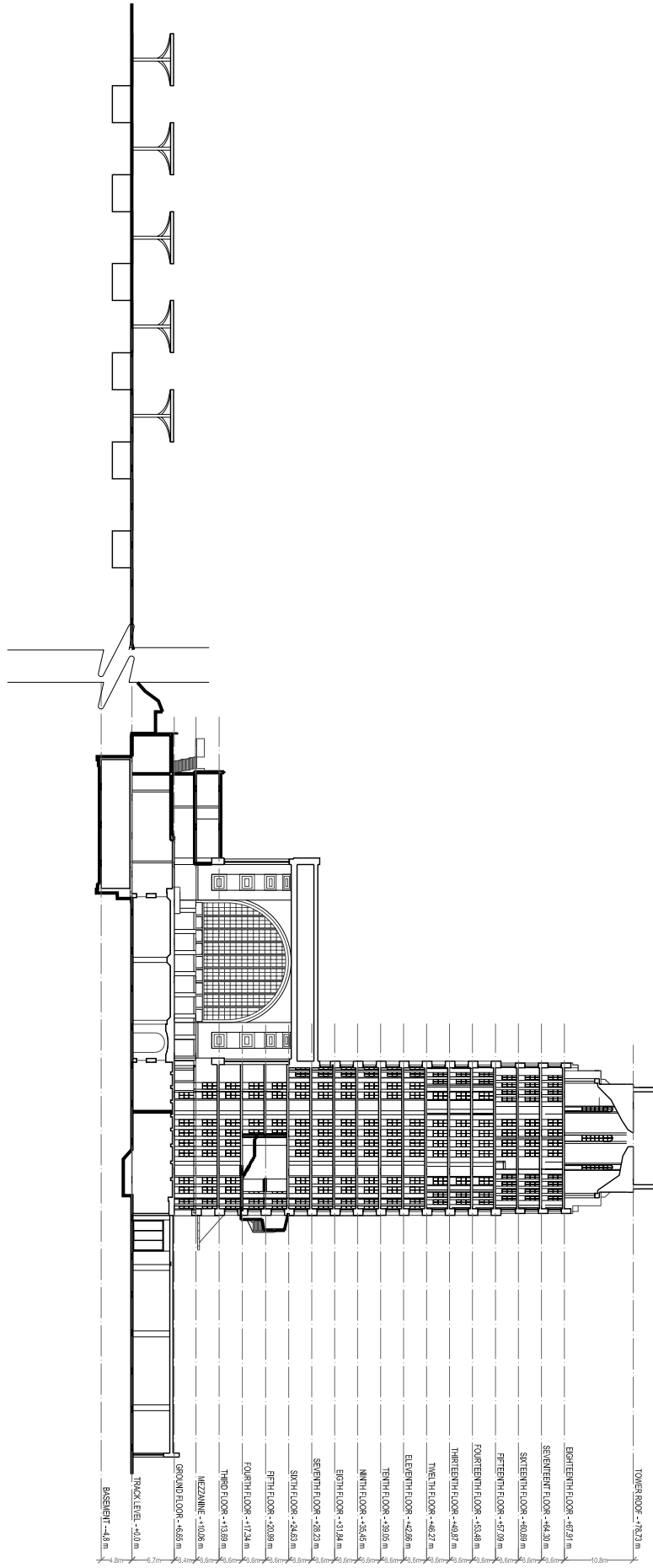
7.14 Section C,  
Scale: 1:1000 m





# Sections

## Section E



7.16 Section E,  
Scale: 1:1000 m

