

CENTERSCAPES

waste landscapes into thriving communities

by

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A REPORT

submitted in partial fulfillment of the requirements for the degree

MASTER OF LANDSCAPE ARCHITECTURE

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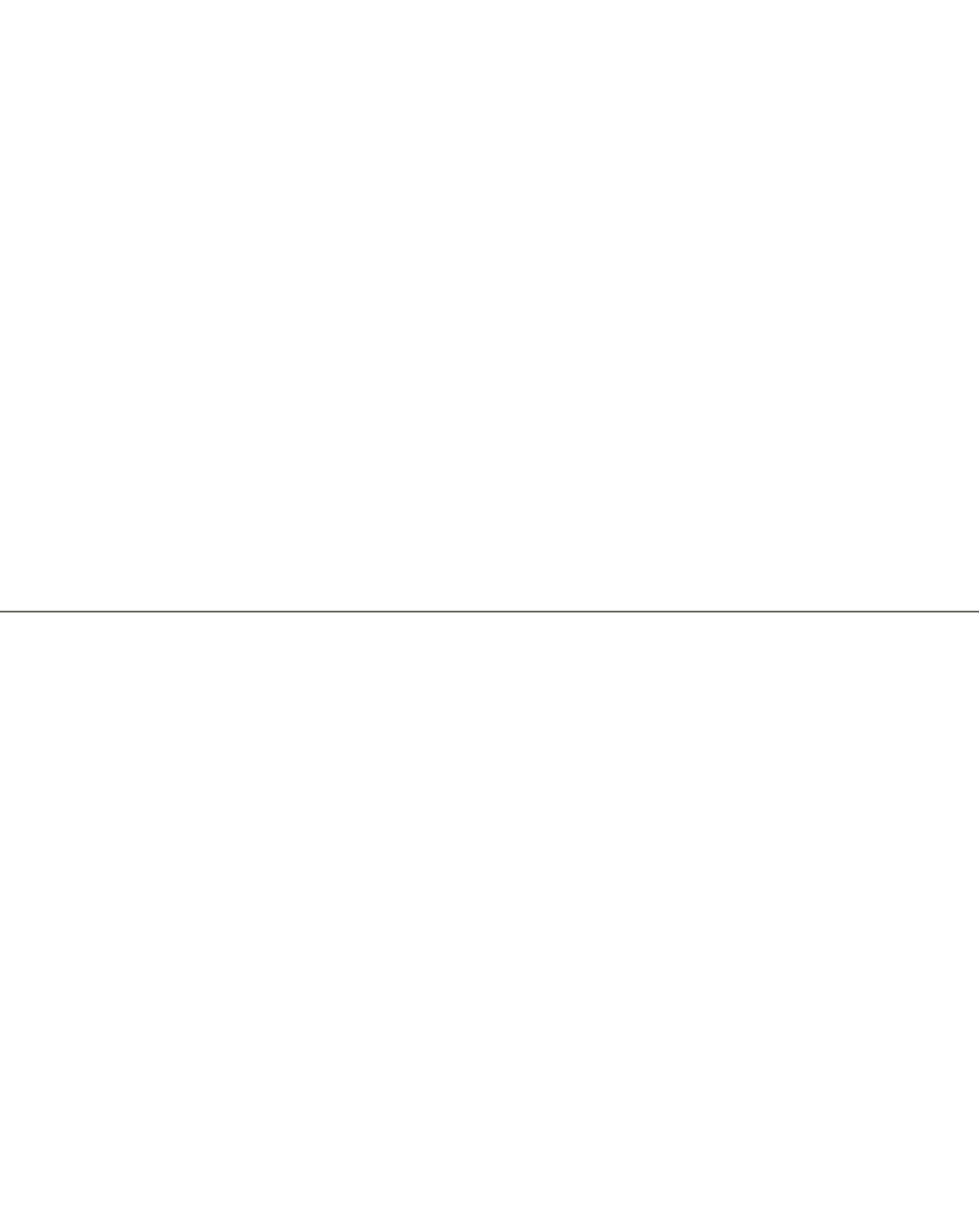
2013

ABSTRACT

Within the past decade, waste landscapes of decaying regional shopping centers and malls have been transformed into new buildings, streets, and towns—otherwise known as greyfield redevelopments. The most successful of these greyfield redevelopment projects are designed as vibrant town centers that exhibit traits of larger 24-hour cities. Unfortunately, landscape has been less relevant within these projects than they have in historical town center precedents.

Landscape architecture originated from societal, cultural, and environmental needs and emerged as a profession to meet those needs. Theory, research, and design principles have emerged as well from studying the importance of landscape within the urban realm. Based upon the theory of Landscape Urbanism, landscape should be the primary element of urban order and that landscape architects possess the ability to enhance these multi-disciplinary projects. In CenterScapes, explorative design projects act as experimental subjects for a landscape architecture approach to current successful greyfield-redevelopment-into-town-center design.

This masters project illustrates design research in theory, precedent, design principle, analysis, and explorative design through two applications. While both applications exhibit traits of a greyfield-redevelopment-into-town-center typology, one is designed solely by landscape architects and the other is designed by an interdisciplinary team represented by architectural, landscape architectural, and real estate development disciplines. This report functions to reveal the importance of strategically allocated and designed open space to act as catalysts for new town center developments.



CENTERSCAPES

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department of landscape architecture

masters project + report

PROLOGUE

It was the summer of 2011 when I began to think of what open space really provides within urban environments. I was leading a small group of designers, proposing a structural deck over the i-670 highway corridor in downtown Kansas City spanning over two thousand feet. Our proposal was focused around the idea that this deck could be designed as a linear park that would serve as the central civic green for downtown Kansas City. Although, it was known to be unfeasible, the purpose was to deliver a vision that could transform the image of Kansas City.

These summer studio projects led to many discussions about urban design between my roommate, Kevin Cunningham, and I. Talks of our similar passion for design within urban contexts, how our training in school was tending to urban design, and mentions of an Urban Land Institute (ULI) Hines Student Competition started a continuous discourse that would lead up to our final year at Kansas State.

Entering the Fall 2012 semester, the Fifth-Year class of landscape architecture students were categorized into master's reports groups that would be instructed by one major professor. The Urban Design & Development (UDD) group was created for students specifically interested in competing in the ULI Competition. Students within the UDD include: Kylie Harper, Bryan

Zundel, Jose Abraham, and myself. By creating the UDD, the Landscape Architecture, Regional and Community Planning Department provided the necessary administrative support and resources that allowed Kevin and I to construct the best team possible in order to compete in the ULI Competition.

To prepare, our major professor Dr. Jason Brody prescribed a test project to be completed in the fall semester to serve as a dry-run for the ULI Competition. The redevelopment of Village Plaza in Manhattan, KS was selected as a project in which we were tasked to create a brief and proposal performed in the same manner as a ULI Competition. Throughout the Fall 2012 and Spring 2013 semesters, I performed research that would not only assist our team in the ULI Competition, but also inform my thesis. CenterScapes is a means to bring all of my research, the Village Plaza redevelopment project, and the ULI Competition into one cohesive report to offer clear insight to what the importance of open space provided by landscape architecture is within multi-disciplinary urban revitalization projects.

Center (noun): a point, area, person, or thing that is most important or pivotal in relation to an indicated activity, interest or condition

Merriam-Webster Dictionary

Scape (noun): something that has surfaced and can be reprogrammed for adaptive reuse

Alan Berger, Drosscape

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ABSTRACT

Within the past decade, waste landscapes of decaying regional shopping centers and malls have been transformed into new buildings, streets, and towns — otherwise known as greyfield redevelopments. The most successful of these greyfield redevelopment projects are designed as vibrant town centers that exhibit traits of larger 24-hour cities. Unfortunately, landscape has been less relevant within these projects than they have in historical town center precedents.

Landscape architecture originated from societal, cultural, and environmental needs and emerged as a profession to meet those needs. Theory, research, and design principles have emerged as well from studying the importance of landscape within the urban realm. Based upon the theory of Landscape Urbanism, landscape should be the primary element of urban order and that landscape architects possess the ability to enhance these multi-disciplinary projects. In CenterScapes, explorative design projects act as experimental subjects for a landscape architecture approach to current

successful greyfield-redevelopment-into-town-center design.

This masters project illustrates design research in theory, precedent, design principle, analysis, and explorative design through two applications. While both applications exhibit traits of a greyfield-redevelopment-into-town-center typology, one is designed solely by landscape architects and the other is designed by an interdisciplinary team represented by architectural, landscape architectural, and real estate development disciplines. This report functions to reveal the importance of strategically allocated and designed open space to act as catalysts for new town center developments.

01 INTRODUCTION



INTRODUCTION

From the invention of the automobile, suburban sprawl is the direct result of a number of policies that encouraged urban dispersal. Since, city planners have been celebrating the separation of land use from other land use within cities (Duany, 2011, 11). Unfortunately this separation has led to a decline in urban vitality and an overall loss of sense of place within our cities.

This simplification of American cities to categories and quantities of land use and the dependency on the automobile has recently created concern in the public eye. People have grown tired of utilizing their cars for primary mode of transit and realizing the inefficient lifestyle it has created. The current increased awareness of environmentalism, rising gas prices, and health issues associated with obesity, the urgency of creating walkable, interconnected, fine grained, human-scale, mixed-use communities has become a primary focus. The objective of CenterScapes and of the Urban Design and Development (UDD) group is to address these current issues and anticipate future conditions by assembling and applying individual and group research during two collaborative, multi-disciplinary redevelopment projects (Abraham, Bennett, Harper, Hoetmer & Zundel, 2012). The first project is the redevelopment of the Village Plaza shopping center in Manhattan, Kansas (MHK Project), and the second

project in being the Urban Land Institute Gerald D. Hines Student Urban Design Competition. CenterScapes is a means to provide an experimental design example of how landscape architecture can add to current redevelopment projects that lack true landscape architectural influence.

The primary challenge is where to find the most suitable sites that provide the greatest opportunity of smart redevelopment. The goal is to create catalyst developments that redefine and create urban centers and neighborhoods that evoke traditional (and successful) principles of sustainable urbanism. Arthur Nelson argues that greyfield sites will be the most important smart growth opportunity in the beginning phases of the 21st century (Langdon, 2009, 77).

Revitalization of these greyfields has gained momentum within the last couple decades and continues. Greyfield sites present an enormous opportunity for redevelopment and more specifically redevelopment into town centers. The reason is because greyfield sites are defined as economically outdated, failing, blighted real estate containing large parking lots that are usually located in places that are ideal for retail. Town centers are the most typical choice of redevelopment typology for these sites because many of the best-known and most

Left Figure 1.1 Villa Italia Mall: Pre-Greyfield Redevelopment

successful new urban town centers have been built as redevelopments of greyfields (Langdon, 2009, 77).

Importance to Landscape Architecture:

Within these new greyfield transformations into town center projects, landscape architecture holds a minimal role within the design and development (Stith, 2013). However, every source of theory, design principle, and precedent repeatedly states the importance of the public realm, open space, and sense of place. Aside from experiential qualities, the importance of environmentalism has surfaced as a high priority in the public eye. Landscape architects presently are forging new ways of what landscape architecture offers beyond aesthetics. Thus, the primary dilemma is the lack of landscape architectural representation in these multi-disciplinary greyfield transformations into town center projects.

The individual research of CenterScapes is the reuse of waste landscapes into thriving communities and the role that landscape architects play in designing these projects. A resurfacing of the importance of environment and landscape within the urban context has engaged a realignment of design discipline which informs the research as what (currently) is the role open space provided by landscape architects in new town center revitalization projects.

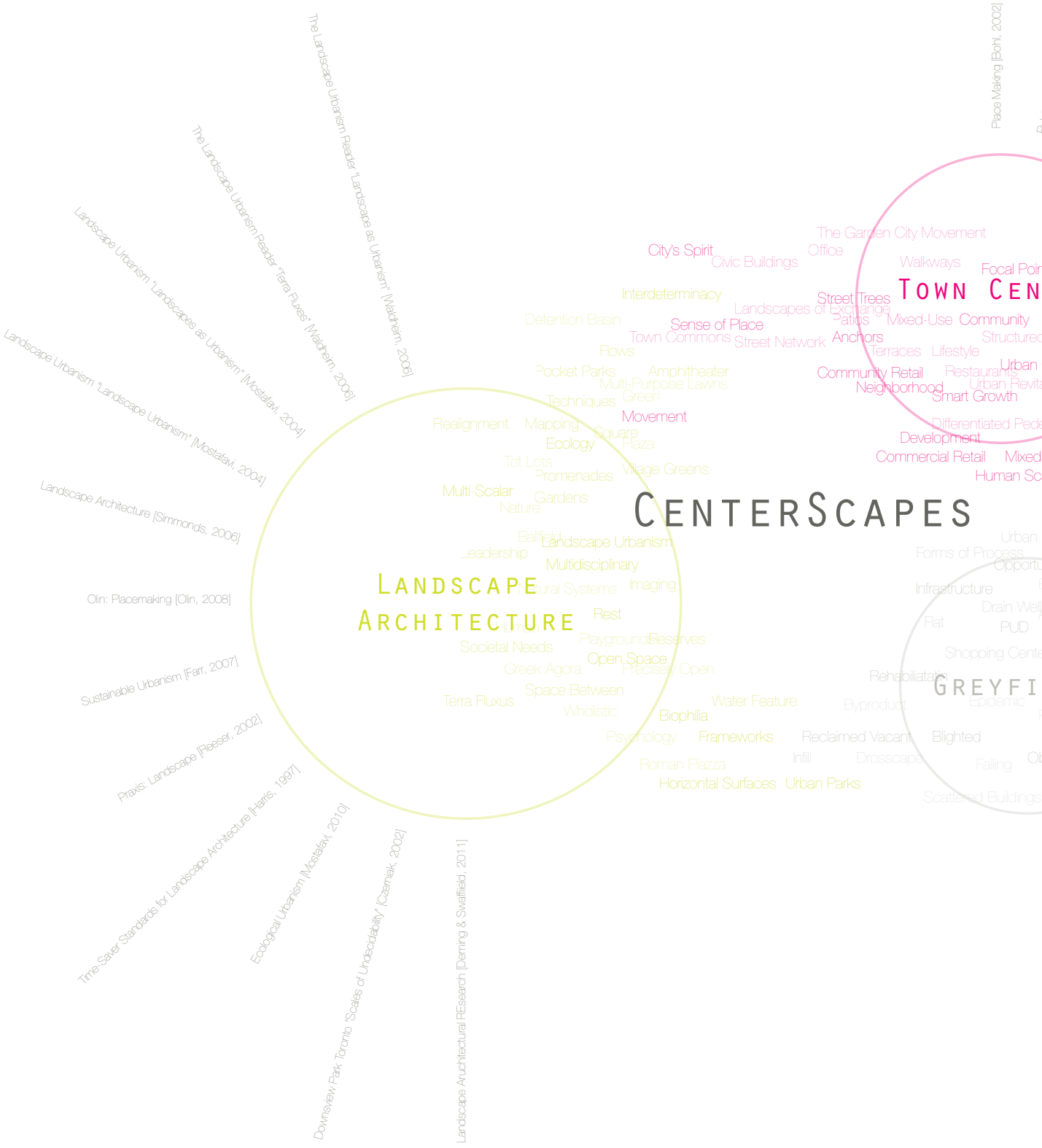
DILEMMA

Revitalization projects such as greyfield redevelopment transformations into new town centers are seen to be the largest opportunity for catalyzing sustainable growth in the 21st century. However, these projects seemingly lack open space driven by landscape architecture. This study focuses on how primary open space provided by landscape architecture can catalyze these revitalization projects.

THESIS

Within each CenterScape project is open space that reveals landscape as a possible catalyst to new town center developments. Analysis of these projects provides a clear insight how primary open space provided by landscape architecture catalyze new town centers. By allocating and designing open space that function on many levels, CenterScapes must create symbiotic relationships to its surrounding context in ways that focus on creating a unique sense of place.

02 LITERATURE REVIEW





INTRODUCTION

The process of literature collection and analysis is critical to the development of this research. This process allowed for clear definition of the need for research between the conglomerate of three important factors: landscape architecture, greyfields, and town centers. Each of which have provided boundaries to synthesize conclusions on what currently is the role of landscape architects in greyfield redevelopments into town centers and what could be offered by new landscape architectural practices. Shown in Figure 2.1, each component became influential in the selection and analysis of the literature due to its relevance to any of the above topics. Through the analysis of design principles, theory, and precedent studies, the literature review offers the evidence needed for the synthetic research approach of CenterScapes.

Left Figure 2.1 CenterScapes Literature Map

People

Activities

Structures + Infrastructure

Community

Nature

Open-Space

LANDSCAPE ARCHITECTURE

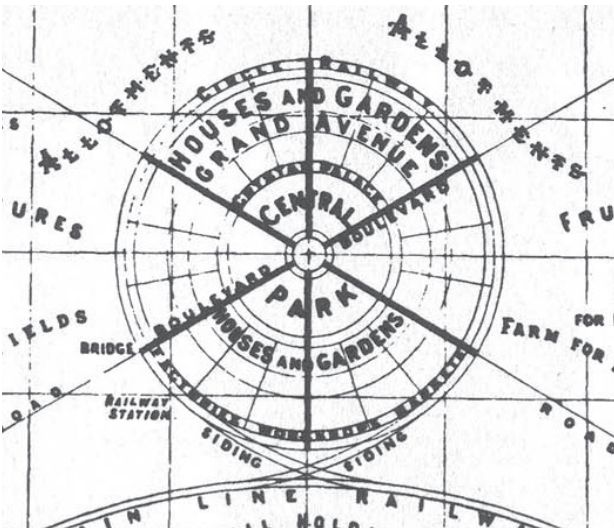
In the world of landscape architecture, the work of the landscape architect is to help bring people, their structures, activities, and communities into harmonious relationship with the living earth—with "want-to-be" of the land (Simmonds, 2006). Many have tried to define landscape architecture, but the young profession continues to expand on the many facets that can be found within the realm of landscape. The literature chosen was not to clearly define what landscape architecture is, rather collect insight to what landscape architecture might be in relation to the role that we play in multi-disciplinary projects. Laurie Olin of Olin Studios claims landscape architecture is a reflection of dynamic, natural, and social systems (Olin, McGlade, Sanders, Weiler, Rubin, 2008, 2). It is a multi-scalar profession that synthesizes these aspects into design solutions for the betterment of humans and nature alike. What differentiates landscape architecture from all the other design professions is that it is design with living things. "The realm of landscape architecture is a holistic practice that embraces beauty, poetry, critical theory, psychology, and clients, all while taking into account natural systems: rain, sunlight, wind, vegetation, soil, habitat, and species beyond human. This practice becomes art in forms of space and structure that evokes satisfaction, contemplation and other higher pleasures" (Olin, McGlade, Sanders, Weiler, Rubin, 2008, 2). To understand the product of what landscape architecture

is today, the origins are explored.

Origins

Although not clearly determined as landscape architecture, landscape architecture as it is defined today can date its' roots back to the ancient Roman and Greek times. The origins of landscape architecture are rooted within societal needs and emerged as a profession to meet those needs. Dating back to Roman era, public space was the driver of urban form, the contrast of the building and the space between. Spaces such as the Roman Piazza were a democratic space of the people, where events were held, political movements were encouraged, and was seen as the heart of the city. The Greek Agora is often cited as another public space of importance, creating places for encounters and a vital sense of place (Bohl, 2002, 60).

Before the 1800's, what was then landscape gardening, was viewed as a profession of master planning and gardening for large residential manors or palaces. In European settlement as well as American there came about a shift in larger scale city planning ideals. The 19th century brought about importance to urban planning and the combination of landscape gardening in to the new emergent cities.



Above Figure 2.2 The Garden City - Diagram



Above Figure 2.3 Roman Piazza



Above Figure 2.4 Central Park



Above Figure 2.5 The High Line

"Later 19th century planning wisely promoted landscape as a solution to widespread urban health crisis. By mid-20th century, this approach had generated an image of the ideal city as fully integrated nature within the environment. Like many modern planning ideals, this one too, has come to life in a dramatically compromised form, such as every resident having a private front and backyard" (Duany, 2011, 31).

During this time emerged multiple planning initiatives, one of which was known as The Garden City Movement. The genesis of The Garden City Movement, sparked by Ebenezer Howard at the end of the 19th century, was the start to a town-scale response to agricultural depression and the condition of Victorian slum cities. This movement... "was an answer to Howard's recognized need for decentralizing overcrowded cities. These Garden City town plans are characterized by modified grid patterns in which radial avenues and boulevards converged on strong focal points and town centers" (Parsons, 2002, 34). These plans often incorporated urban parks, village greens, promenades, and pocket parks, and reserved prominent sites for civic uses, projects that are often sought after by landscape architects.

In these new city plans, "Preserves, greenways, parks, plazas, squares, and promenades represented a regional to local hierarchy of open-spaces... It is only by providing the full range of specific open spaces that planning authorities can ensure citizens the quality of life that codes were supposed to provide" (Duany, 2011, 32). Amongst all these new town developments, prominent designers such as Frederick Law Olmsted and Calvert Vaux paved the way for the genesis of landscape architecture as a profession in the United States.

Frederick Law Olmsted is credited with creating plans and parks throughout some of the most historically significant cities in the United States. These notorious parks consist of Central Park in New York City, Prospect Park in Brooklyn, and Boston's Emerald Necklace (Simmonds, 2002, 609). From then on, a symbiotic

relationship was formed between the urban and the landscape. Presently, it is recognized as our duty as landscape architects to find opportunities to provide functional urban spaces that create the sense of place (Simmonds, 2006, 314).

Typically, the fields of landscape architectural practice revolve around planning, development, campus design, parks, gardens, preserves, urban design, reservoirs, ecological design, and site design (Simmonds, 2006). Currently, landscape architects still perform large scale projects, but is usually done under the governance of brother professions that stifle the importance of landscape within the urban domain. Within the past couple of decades, there has been a resurgence of this importance though. Theory produced by some of the world's most brilliant minds has defined a paradigm shift towards landscape in designing our cities known as landscape urbanism.

Theory

The basis of Landscape Urbanism is the symbiotic nature of landscape and urbanism realized back in the 19th century. It is the theory of planning and design for urbanism arguing that landscape, as opposed to architecture, is more capable of organizing the city and enhancing the urban realm. Charles Waldheim compiles the key essays written a wide array of professionals to lend to the theory in his book *The Landscape Urbanism Reader*. In his essay "Landscape as Urbanism" he claims, "Landscape is a by-product of urbanism-produced only because the lost biophilia of nature... The two go hand in hand, you cannot have urbanism without landscape and vice-versa" (Waldheim, 2006, 15). Emerging in the late 1990s, Landscape Urbanism describes the ability to organize the city and its needs through horizontal surfaces. "Across a range of disciplines, landscape has become a lens through which the contemporary city is represented and a medium through which it is constructed" (Waldheim, 2006, 15). James Corner, Head of Penn Design and Principal of the firm James Corner Field Operations, in his essay

"Terra Fluxus" states that landscape has emerged as a large cultural interest, due in part because of the rise of environmentalism and a global ecological awareness.

"Landscape is enjoying renewed and broadened relevance...landscape architecture has benefited from this newfound relevance for the problems facing cities today. Many landscape architects have inherited the professional activities such as planning...Landscape architects' natural position and training allows them to address the most pressing urban issues facing the design disciplines." (Waldheim, 2006, 15).

Presently, leading schools of landscape architecture understand the scope of landscape as a model of urbanism, teaching students to embrace large-scale organizational techniques alongside design, ecological formation, and cultural expression (Waldheim, 2006).

To further explain the meaning of landscape urbanism, Corner goes on to say that the two terms are distinct and separated, but also mutually exchangeable. Meaning, you cannot have landscape without urbanism, they coincide; landscape urbanism is two terms that make one word, one phenomenon, one ideal. Corner references Olmsted's Central Park and how its intent was to provide relief from New York's urban fabric, but became the catalyst for real estate development and prominence. This effect is one model of the landscape urbanism ideal, in which landscape drives the process of city formation (Waldheim, 2006, 24). Looking at today's current shift in landscape architectural projects, architecture is no longer the primary element of urban order, increasingly urban order is given by a thin vegetal plane, and increasingly, landscape is the primary element of urban order. The reason of this is because landscape is a medium that is uniquely capable of temporal change, transformations, adaptation, and succession. These qualities recommend landscape as an analog to contemporary processes of urbanization and as a medium uniquely suited to the open-endedness, indeterminacy, and change demanded by contemporary urban conditions (Waldheim, 2006,

13). This suggests that landscape is not only a formal model for urbanism today, but perhaps more importantly, a model for process. Corner states that the exclusion of urban form and process from any ecological analysis remains extremely problematic (Waldheim, 2002, 20).

Given that the formation of the urban realm starts with the focus of horizontal surfaces, landscape architects become a dominant voice in the design community from their given credited project typologies. Landscape has a newfound relevance offering a multivalent and manifold medium for the making of urban form, and in particular in the context of complex natural environments, post-industrial sites, and public infrastructure (Waldheim, 2006, 15).

Conclusively, landscape urbanism is suggestive of a disciplinary realignment in which landscape replaces architecture as the framework of contemporary urbanism.

Evolving from designers of living systems, landscape architects possess the ability to synthesize multiple inputs to create solutions that exceed principle of static form. Understanding the temporal, permanent, and the processes of dimension of time beyond that of its brother disciplines, landscape architecture displays characteristics of true student of what urbanism really is. The abundance of urbanism theory hints towards landscape architecture in ways that insinuate the limiting role of only designing open space and the vegetal layer that comes with it, but what is suggested through landscape urbanism is that these components take an active role not only in shaping the 'what' but also the 'how' of organizing urban form. Landscape architects offer design solutions through their inherent skills of synthesizing designs from multiple inputs, their understanding of processes through time, and their recognition for how open space is designed and functions.

Opportunities for Landscape Architecture

The primary issue presently in American cities is recognizing the opportunities within our urban districts and redesigning them in ways that will ultimately promote sustainable growth and development. The market for redevelopment is immense due in part to the lack of greenfield space available (Longman, 1998). We must narrow our search to sites that will be catalysts for sustainable urbanism. When identifying the typical characteristics of sprawl, one thinks of the over consumption of land allocated for use and the singularity of land-use zoning. Vast highways spanning suburban housing developments with competing retail centers every mile all hinging on the use of automobile transportation. The realization of the post-industrial city and its lack of intermixed-use, basing most of its foundations on vehicular connections has, until recent decades, gained any importance when applying new design tactics to urban development.

Fortunately, America has felt the error of its' ways and has shifted towards the environmental acceptance into its developmental conscious. "The face of urban America is taking on a new look of cleanliness, renovation, tearing down and rebuilding. There is a sense of urgency, directness, non-pretense, and informality. There is a new vitality and a sense of competition marked by inventiveness." (Simmonds, 2005, 315).

With such precious resource of land and space, landscape architects are now producing projects that have broadened the field even more by redesigning the underutilized and the environmentally vital. Since the profession has been deemed the designer of open space, open space is looked at not as something that has been allocated, but rather something that should be allocated. Corner suggests that this new-found open space can perform on multiple levels. Levels more than aesthetic and representational, but perhaps even more influential, landscape possesses the capacity to function as ecological vessels and infrastructure.

Corner describes the lack of landscape architectural influence within these larger projects because within the world of multi-disciplinary design there is a distinction between what should be landscape and what should be architecture. Corner suggests the reason of dissonance between design disciplines is not only for the fact of different materials, technique, and imaginative dimension, but also because of the hyper-professionalized classification (Corner, 2006, 27).

Conclusion

Conclusions drawn from literature suggest that landscape architecture is credited for the design of open spaces, can work in multiple scales, believes landscape can work as infrastructure, and is based on the principle of bringing people, their structures, activities, communities, into harmony with the living earth.

Given the newfound relevance of environmentalism and its connection to the landscape, landscape architecture has the opportunity to create solutions that integrate living systems

Theory is suggestive that landscape architects possess the ability to synthesize multiple inputs into solutions that reveal landscape as necessary catalysts for sustainable cities.

Existing Infrastructure

Near Arterial + Transit

Underperforming Land

Sea of Asphalt + Concrete

Single-Use Zoning

Flat

Prime for Town Center Redevelopment

Evolves from Single Structure

Mixed-Use

Reorient Activity to Street

Effective Phasing

Mix of Housing Types

Real Public Space

Establish New Network of Circulation

GREYFIELDS

"Open space can be found in unpaved areas, street right of ways, or even whole utility easements. In the center city the vacating of streets, elimination of existing parking lots and structures can free up vast amounts of open space (especially in Planned-Unit Developments). Reclaimed vacant or tax-delinquent lands, cliffs, steep slopes, in-city streams or waterfronts are all possibilities. Within metropolitan confines, reclamation, rehabilitation, and redevelopment will create extensive open-space reserves" (Simmonds, 2005, 315).

This thought of recycling the post-industrial urban city is essential to the stability of our cities. Ecological Urbanism speaks to this in the essay *Why Ecological Urbanism, Why Now?*, "Urban recycling of the remnants of the industrial city benefits from the unexpected and given context of the site that needs to be remade, a context far from the tabula rasa" (Mostafavi, 2010, 28). It is our duty as landscape architects to find these possibilities and create functional urban spaces that create a sense of place.

Through the research of these opportunities of urban recycling, greyfield redevelopment projects surfaced as a primary focus. Given the conditions of what the Urban Land Institute's Gerald D. Hines Student Competition involved in the past, greyfield redevelopment pose immense potential of relevance.

As a progressed study by the Congress for the New Urbanism, greyfield redevelopment projects are a little over a couple decades old. The success of these projects can be measured by reflected New Urbanism principles within the projects, but also the ever-growing popularity and awareness of the opportunities these projects offer.

Reason for these greyfield developments is due to the fact that they are an epidemic to our cities and have reached the threshold of their trend. Rather than neglecting this virus, the Congress of New Urbanism has transformed these greyfields into flourishing intermixed, denser redevelopments. These greyfields present multiple dilemmas, one primary issue is that these large retail centers have created an interior environment that neglects the urban environment, with large blank exterior walls, huge parking lots, scattered outbuildings, and large traffic demands. All of these components diminish any sense of place (CNU, 2005, 9).

Definition

Greyfield is a relatively new term that has been defined recently as one of the biggest issues and opportunities that plague the urban environment today. Greyfield is a new term, hinting at the sea of asphalt separating a regional or super-regional shopping mall from its town.

Greyfields are economically obsolete malls and other sites that offer large infill redevelopment opportunities, without the contamination found on brownfield sites (CNU, 2005, 7). Greyfields have been researched through the lenses of multiple disciplines, even landscape architecture.

Alan Berger of Harvard Graduate School of Design provides his viewpoint of what he calls Drosscapes or waste landscapes of the post-industrial America and the epidemic that has manifested. Dross is a term that is used to describe the waste, 'scape' is used as something that has resurfaced (Berger, 2007). Drosscape is coined as a new paradigm for design that emphasizes the productive integration and reuse of waste landscapes into the urban fabric. In Drosscape, the design strategy utilized would move away from the modernist, master-planner toward innovation, entrepreneurialism, and long-term environmental recovery (Berger, 2007, 14).

Berger classifies the greyfield typology into the category of Landscapes of Exchange. Here he defines these landscapes as wasteful space that addresses "demalling" or the landscape of dying shopping centers (Berger, 2007).

Despite the title—struggling retail centers, landscapes of exchange, or greyfields all contain ripe opportunities and is being recognized throughout the urban design community. Greyfield sites will be the most important smart growth opportunity in the beginnings of the 21st century (Langdon, 2009, 77). Not only are they recognized, but they provide a solution to the horizontal spread of housing development. "Some 2.8 million acres of greyfields will be available by 2030, which is enough to supply half of the nation's housing needs also providing retail/office use as well" (Langdon, 2009, 77). While retail and shopping center projects continue to get built, the role of a landscape architect is most likely to work with the traffic engineers and focus on designing the vehicular access to the site as well as introduce ornamental plantings when needed to

increase aesthetics. Even within the successful greyfield redevelopments studied by the Congress of New Urbanism, landscape architecture takes a backseat of what truly informs the design of these projects.

Congress of New Urbanism and Greyfield Redevelopment

Greyfield redevelopments are usually focused on implementing market demand of more pedestrian friendly type of retail experience as well as implementing the stagnant, but important principals of New Urbanism. New Urbanism is a design trend used to promote community and livability. Characteristics include narrow streets, wide sidewalks, porches, and homes located closer together than typical suburban designs (Farr, 2009).

The solutions developed for these greyfields often result in a mixed-use model set on the precedent of European style. The Congress for New Urbanism (CNU) has chosen the predominant model of town centers as the primary choice for redevelopment of these greyfields. Since the redevelopment sites serve as new walkable centers for their communities complete with public squares and often civic facilities as well, they have adopted the town center environment (CNU, 2005, 11). Reason for this selection is since the construction of new urban town centers, the most notable were redevelopments of shopping centers and malls (Langdon, 2009, 77). The success of these sites not only lies within the design, but also within existing context and conditions that greyfields possess. Simply, "they're large flat spaces that drain well, major infrastructure is already in place, the location is usually near arterial roads, it's under single ownership, and they have been planned and zoned for something other than low-density housing" (Langdon, 2009, 80). The greyfield redevelopments existing provide an abundance of design principles and process that have been refined through numerous applications. These projects are gaining popularity through the promotion of the Congress of New Urbanism and continue to receive recognition as a

sustainable type of development.

Conclusion

Conclusions drawn from literature suggest that greyfields are flat, single-use zoned underperforming real estate located near arterial and transit boulevards, covered in a sea of surface parking and typically are prime for redevelopment into town centers. Based on the literature, these redevelopments into town centers are projects that revolve around a single structure, establish a new network of circulation, creates a mix of housing types, reorients activity to the streets, mixed in use, implements effective phasing, and most importantly, creates functional public space.

Given that town center typology is the most successful application of greyfield redevelopment, the third literature component organizes and defines what a town center is. As Laurie Olin states, "some of the best of high-style design—really comes out of reflecting and refining the vernacular. You take these ordinary things, and you turn the dials up and play with them to see what you can do with them" (Olin, McGlade, Sanders, Weiler, Rubin, 2008, 17). Town Centers are seemingly the recalled type of model, so the importance shifts to how and what defines a town center.



Above Figure 2.6 Stonebriar Center



Above Figure 2.7 Dixie Square Mall



Above Figure 2.8 Village Plaza - Existing Max Fitness

Mixed-Use

Anchors

Strategic Circulation

Range of Functional Open Spaces

Daily Activities Within Site

Mix of Housing Types

Focal Points

Public Realm

TOWN CENTERS

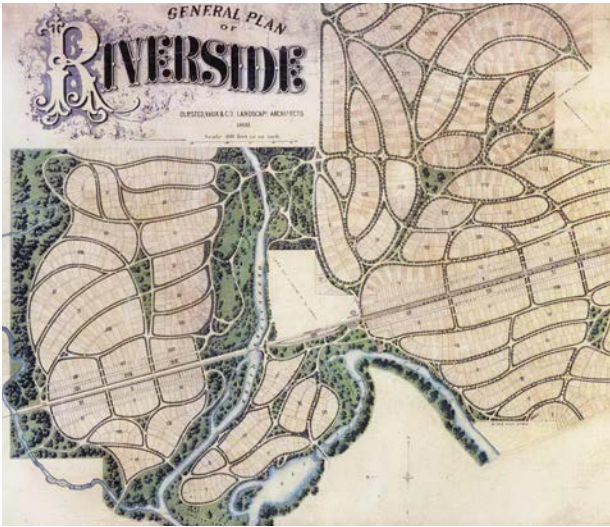
As the aforementioned research states, from the emergence of the Garden City Movement, Garden City town plans are characterized by modified grid patterns in which radial avenues and boulevards converged on strong focal points such as town centers. Town centers represent a return of typical town planning practices dating back to ancient Rome and Greece. Drawing correlations from the past 50 years as well as centuries ago, town centers have been a consistent model that has changed only slightly in form. Despite variances in design, there are common principles that are seen within the design of the public realm. Recent efforts to create town centers reflect, in part, a reconsideration of the form and function of central places in historic settlements. The distant and recent past provide inspiration and some important lessons for developing 21st century town centers (Bohl, 2002). Given the accepted role of landscape architects to provide valuable open space, these plans often incorporated urban parks, village greens, promenades, and pocket parks, and reserved prominent sites for civic uses.

Several precedents offer design insight that reveal that the public realm and the shaping of public spaces was the primary driver when designing town centers. Multiple plans revolve around the importance creating a central spaces or center. The town plan of Pullman, IL consisted of a grid relieved by a central public square.

Riverside, IL, (see Figure 2.9) Frederick Law Olmstead and Calvert Vaux designed a plan that centralized around a distinct town center, civic buildings, and a symbolic water tower. Llewellyn Park and Lake Forest were created as railroad suburbs, much like a smart growth suburb, that centered on a town center consisting of a railroad station and an open natural meadow (Bohl, 2002, 34).

The historical town plans that are referenced within the literature include a heavy open space component. Revealing that in the emergence and origins of town planning, landscape architects such as the Olmsted Brothers were playing a significant role in shaping cities. The reason of this is because of the importance of the public realm and the design thereof. The public realm is where the profession prides itself on designing and thus providing historical proof that landscape architects play a vital role in the development of creating successful town centers.

Today, a town center is defined as an enduring, walkable, and integrated open-air, mixed-use development that is organized around a clearly identifiable and energized public realm usually located at the intersection of a transit boulevard and a local arterial road (Gupta, 2008, 25). These town centers are designated as the high point of the surrounding



Above Figure 2.9 Riverside, IL - Masterplan



Above Figure 2.10 CityPlace, West Palm Beach, FL - Aerial



Above Figure 2.11 CityPlace, West Palm Beach, FL - Main Plaza

community. Bob Gibbs argues that town centers can and should be built wherever there is sufficient market demand (Bohl, 2002, 57).

William Whyte claims in his book *City: Rediscovering the Center*, the need to "return to the agora," is about reestablishing public spaces within our towns and cities where people can meet and talk that create a sense of place (Bohl, 2002, 60). Clearly stated, town centers' success directly relates to the design of its public realm (Gupta, 2008). In the ULI publication *Placemaking* by Charles Bohl, he describes in one chapter design principles that are extracted from town center examples that focus on three main components: gathering places, streets and pathways, and buildings. Bohl (2002) indicates that the key features of successful town centers, past and present, are the variety of attractive public spaces. He continues that these public spaces have been the focal points of towns that provide the public realm for everyday social life. The goal is to design projects that draw people to places where they want to be engaged in daily activities and in the community (Bohl, 2002, 59-60). What is important about these spaces is that the program of space coordinates with the surrounding uses. What made the Greek Agora such a successful precedent is given its mixed-use setting, where the commercial, social, athletic, entertainment and civic activities of the community all shared the same space (Bohl, 2002, 62). Although landscape architecture often designs the open space of such developments the design of successful town centers requires a multi-disciplinary approach with no preconceived notions but the larger vision of placemaking to create a great design.

The Public Realm

These spaces within town centers must be achieved through coordination between disciplines on prioritizing each value and synthesizing a solution that delivers the most promising solution. "Town centers are most often distinguished by the layers of complexity of their urban open space network" (Bohl, 2002, 61). Furthermore, the

role of landscape architecture provides valuable insight to this by inherit training of how utilize spatial relations within the public realm. Whether the central space is a plaza, street, park, or square, it should facilitate movement and sightlines, create a unique experience, be easily accessible, possess the ability to host events, have complementary adjacent uses, and be a twenty-four hour democratic space (Gupta, 2008, 36). Within the section of "Designing the Public Realm", the subsection titled "Plazas, Squares, Greens, and Courts", Gibbs offers a little more insight on open space principles.

"Open space needs to be designed in ways that pull pedestrians to the middle including spaces for rest, walkways, multi-purpose lawns, canopy trees, and water feature(s). Surrounding this open space should be diverse retailing categories, such as coffee, cosmetics, jewelry, and shoes, which benefit from high shopper traffic. The most effective open space designs tend to be the simplest in design: walkways and a lawn surrounded by canopy trees are all that is necessary. These open space designs must be sized proportionally to the surrounding blocks and given context" (Gibbs, 2012, 93).

Site specific design principles of public spaces and streetscapes are prevalent throughout the literature. Once again, the treatment of form and design of horizontal surfaces is relevant in ways that effect landscape architectural duties. Creating surfaces that are high-quality and relate human dimensions to context allow for good pedestrian movement and provides the user an experience that facilitates consumerism (Gibbs, 2012, 84). Simplicity through design of furnishings, plantings, and paving prove to be vital to providing the right amenities for pedestrians, but also not to distract from storefronts and the public realm (Gibbs, 2012, 83).

Design strategies that should be implemented for successful town centers is integration of a rigid-street block pattern with a clear hierarchy for street space and uses. In addition, it must posses on-street parking, lighting for people, landscape/art integration, and be

coordinated with urban design. Such coordination requires development to happen simultaneously with either sides of streets and open spaces must be encompassed by finely designed buildings (Gibbs, 2012, 89). Streets should be designed to strike a balance between pedestrian and vehicular needs, accommodating shade trees, sidewalks, and street furnishings while also providing visibility and the convenience of drive-by access and on-street parking. Buildings fronted the right-of-way, and arcades, colonnades, galleries, balconies, stoops, and attached plazas all help to establish the street as a viable public realm (Gibbs, 2012, 90).

The ULI publication Placemaking is a comprehensive manual that compiles multiple successful precedents across the nation and builds the case for how these town centers can help centralize suburban development around a sustainable model of urbanism. Studies were conducted on several town centers by multiple design professionals from all disciplines and the conclusionary findings deduced that the number one principle was to "Create an Enduring & Public Realm" (Gupta, 2008, 36).

To create an enduring public realm, the design of town center must focus on the pedestrian experience. Strategies such as placing dining terraces opposing each other accompanied by generous sidewalks and street trees become vital (Gupta, 2008). To create a varied experience, mixing building uses ranging from a community anchor such as a library, department store, or a supermarket, intermixed with community-served retail, service retail, office, and residential all increase consumer traffic. Thus, using buildings to define the open space rather than push open space to the periphery of the development. All these uses are mended through the design of streets and open space. (Langdon, 2009). This open space must be sized proportionally to the surroundings, rather in urban or suburban contexts (Gibbs, 2012, 93). Finally, the key to successful town centers is to have a variety of attractive public gathering spaces (Bohl, 2002, 35).

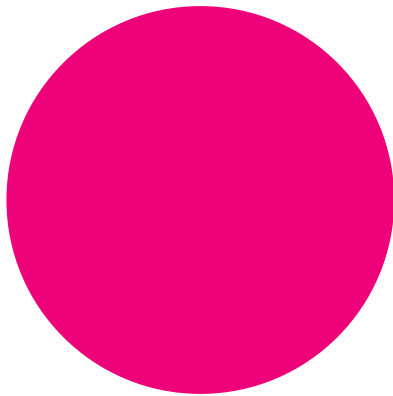
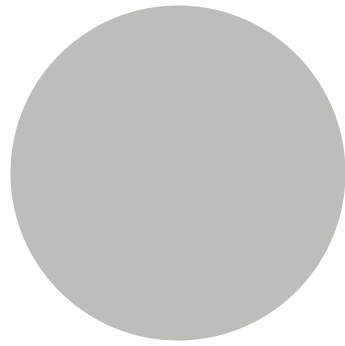
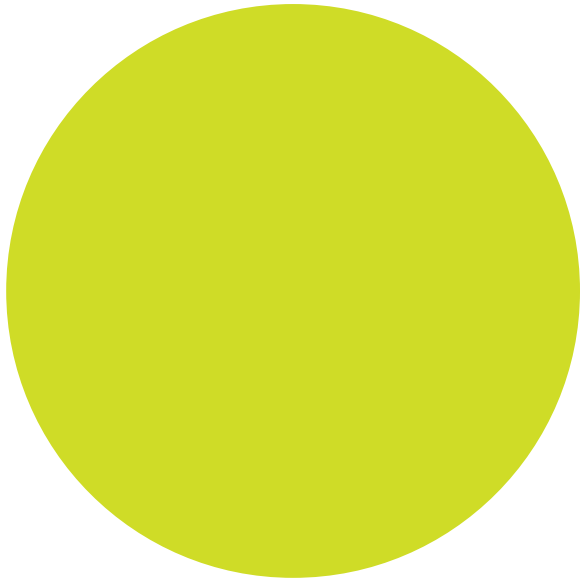
Conclusion

Conclusions drawn from literature suggest that town centers are a mixed-use, community centered style of development that utilizes strategic circulation, mixed-use building program, and a strategic placement of open spaces that facilitate daily activities within the site to create an enduring public realm. What this means in terms of CenterScapes is to ensure a town center typology is created within the explorative projects, CenterScapes should involve these specific design principles, but more importantly open space that reflects the characteristics of a town center. Whether it be a central green, plaza, preserve, garden, square, or a culmination of these types, the opportunity is to design and develop open spaces that not only achieve a town center typology but display new ways of thinking of open space through the use of landscape architecture.



Right Figure 2.12 Mizner Park, Boca Raton, FL





CONCLUSIONS

Reflecting on the three topical areas: Landscape Architecture, Greyfields, and Town Centers, these key points are delineated to build the argument for what CenterScapes projects exhibit.

Landscape Architecture

- The design of open space + placemaking
- Multi-scalar
- Landscape as infrastructure

Greyfields

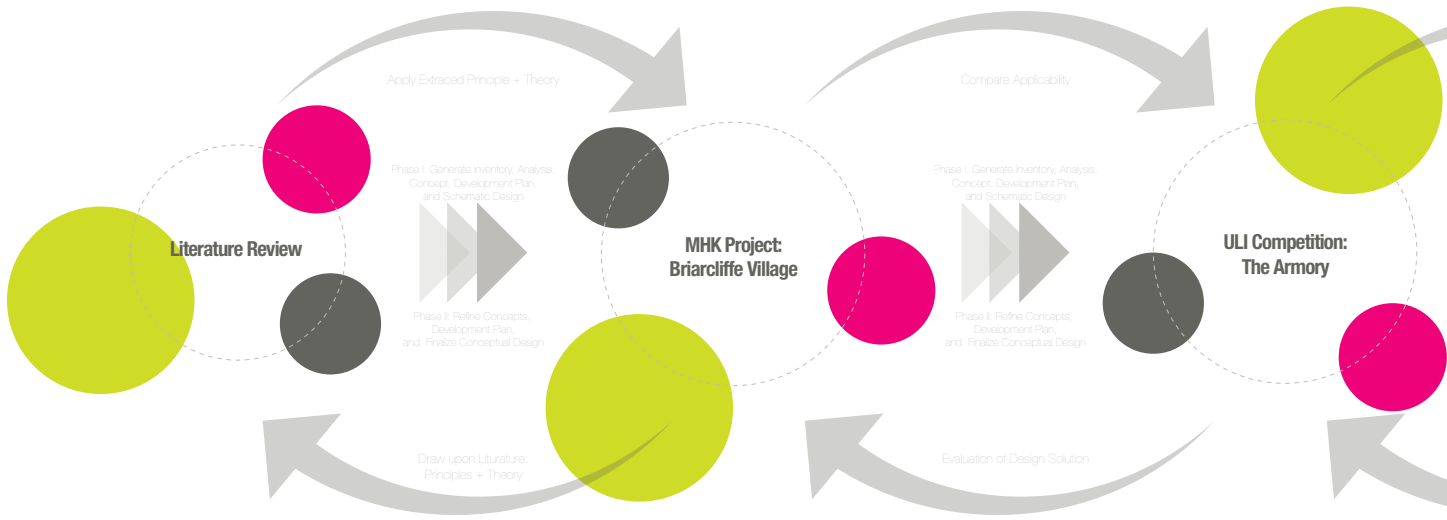
- Single-use buildings with the primary open space as surface parking
- Largest opportunity for redevelopment in the 21st Century
- Prime for redevelopment into Town Centers

Town Centers

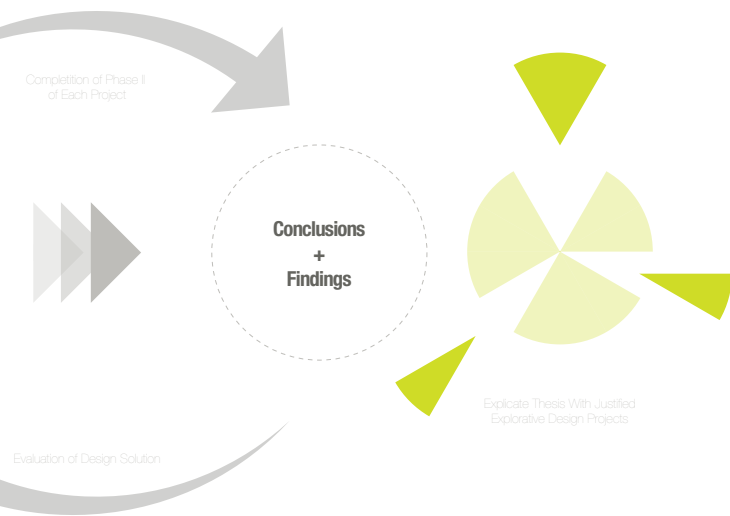
- Success is due to a strong public realm
- Designed as a mixed-use focal point community development
- Historically contained a primary open space component

From these key points the thesis is formed and explored through CenterScapes design projects.

03 METHODOLOGY



- Town Centers
- Greyfields
- Landscape Architecture



INTRODUCTION

To explain the process of CenterScapes research, each step of methodology is broken down-synthesizing literature into conclusions, thesis formation, research questions, and findings are utilized to validate the CenterScapes' thesis. The cyclical methodology, Figure 3.1, of this research revolves around research by design. By reviewing literature that is relevant to the dilemma, questions are formed to address and inform the thesis. Through each explorative design projects (MHK and ULI), conclusions and analysis are drawn in order to answer questions derived from literature review and to refine the thesis.

CENTERSCAPES METHODOLOGY PROCESS

LITERATURE SYNTHESIS

Through review of literature of the three topical areas: landscape architecture, greyfields, and town centers, the literature conclusions are formed. These literature conclusions synthesize the key elements of each topical area in order to frame the argument of CenterScapes.

1

Landscape Architecture

- The design of open space + placemaking
- Multi-scalar
- Landscape as infrastructure

Greyfields

- Single-use buildings with the primary open space as surface parking
- Largest opportunity for redevelopment in the 21st Century
- Prime for redevelopment into Town Centers

Town Centers

- Success is due to a strong public realm
- Designed as a mixed-use focal point community development
- Historically contained a primary open space component

THESIS + RESEARCH QUESTIONS

Thesis formation creates the argument framed by the dilemma and conclusions found through the literature review. CenterScapes claims that primary open space can catalyze new town centers and that landscape architecture is a field suited to design these spaces.

Research questions are created in order to cross reference key points of the literature conclusions to analyze each explorative design project. Analysis of the CenterScapes projects through the research questions will validate and support the CenterScapes claim.

2

Supporting:

How can landscape as infrastructure enhance greyfield-redevelopment-into-town-center projects?

Addressing multiple-scales, how can surface parking lots be strategically allocated and repurposed as viable open space?

How can this strategically allocated open space(s) be designed in ways where they are critical to the development proposal and its public realm?

Primary:

How can primary open space provided by landscape architecture catalyze new town centers?

EXPLORATIVE DESIGN PROJECTS

CenterScape projects provide two examples of an integrated approach of multi-disciplinary practice and research by design. While each project possesses different characteristics - MHK being a suburban context, developed by a team of two landscape architecture students, ULI being an urban context, developed by a multi-disciplinary team - the projects possess characteristics of each topical literature section: landscape architecture influence, greyfield redevelopment, and town center typology creation. Both projects substantiate the thesis in different ways.

3

MHK: Briarcliffe Village

Primary Open Space Components:

- Braircliffe Square
Multi-functional civic square
- Briarcliffe Park
Terraced wetland park

ULI: The Armory

Primary Open Space Components:

- Portland Avenue
Ecological vessel/bicycle boulevard
- Armory Green
Infrastructural landform park

CONCLUSIONS + FINDINGS

The research questions are answered and explained through writing and reference to the explorative CenterScape projects. These conclusions are synthesized and summed into statement findings. The third component to CenterScapes' conclusions explains limitations of research and possibilities of future research.

4

- Research questions resolved by analysis of each CenterScapes project.
- Key findings based on analysis research questions.
- Limitations and future possibilities of research.

04 MHK: BRIARCLIFFE VILLAGE





INTRODUCTION

EXPLORATIVE DESIGN I

The first explorative design project takes place on the existing Village Plaza site in Manhattan, KS. Selected by Dr. Brody as a site that embodies the typical characteristics of ULI Competition sites. The project challenges, parameters, and assumptions are created by the UDD group - influenced by the City's vision for a more sustainable development within Manhattan.

Left Figure 4.1 West Manhattan Aerial



Page Figure 4.2 Village Plaza - Explorative Site Boundaries

MHK BRIEF: EXISTING CONDITIONS

With the population increase from student enrollment at Kansas State University and the proposed National Bio and Agro-Defense Facility (NBAF), the City of Manhattan seeks to redefine its communities through new sustainable development practices. Facing potential housing demand issues and environmental issues involving development within the floodplains along Wildcat Creek, Manhattan looks to create a development model that addresses these issues to catalyze future development throughout the city. Village Plaza contains multiple dilemmas that exemplify the typical developments throughout the city such as a lack of identity, connectivity issues, flooding hazards, and continuing underperformance.

Through the interest and investment of the Isaiah Greene Development Group (IGDG), Village Plaza's redesign will employ responsible land use, improve development patterns, enrich surroundings communities, and introduce a potential new development typology for Manhattan.

The Village Plaza development is located on the southwest side of the intersection of Seth Child Road and Anderson Avenue. The site is 6.52 acres, shown in Figure 4.2, and is bound by Seth Child Road to the east, Anderson Avenue to the north, Village Drive to the west, and Wildcat Creek to the south. Although the actual

Village Plaza property does not extend to Wildcat Creek, the city has asked for the area extending beyond the site to be examined in order to address flooding issues and see if the area can be used to create more cultural and recreational opportunities.

The site currently has many retail and food establishments, as well as a gas station, bank, and abandoned fire station. The site also provides access to the Anderson Avenue trailhead (to remain), which feeds into the Manhattan linear trail. Village Plaza has for many years been a development with a constant transition of tenants. The retail area has been underperforming financially for decades now, yet it survives. The city suspects there are better uses for the site and want to move away from the high tenant turnover rate.

The area currently suffers from poor design, programming, vehicular circulation, pedestrian access, issues with flooding, and lack of positive identity. Yet, because of its location near a major arterial intersection and because of the proposed future population growth of Manhattan, Village Plaza has been identified for potential economic growth and land use intensity.







Adjacent to the site is a mosaic of single-family residential, multi-family residential, retail, and commercial uses. Most of these uses are not easily accessible to

bicyclists and pedestrians. The elevated Seth Child Road creates a vertical impediment subdividing the eastern and western portions of Anderson Avenue. Anderson Avenue also creates a divide between the site and its adjacencies. There are only a few crossings made available to pedestrians, which make negotiating a transition from one side of the street to the other suboptimal. Finally, the elevated, vacated railroad right-of-way and Wildcat Creek limit connections to the residential neighborhood to the south.

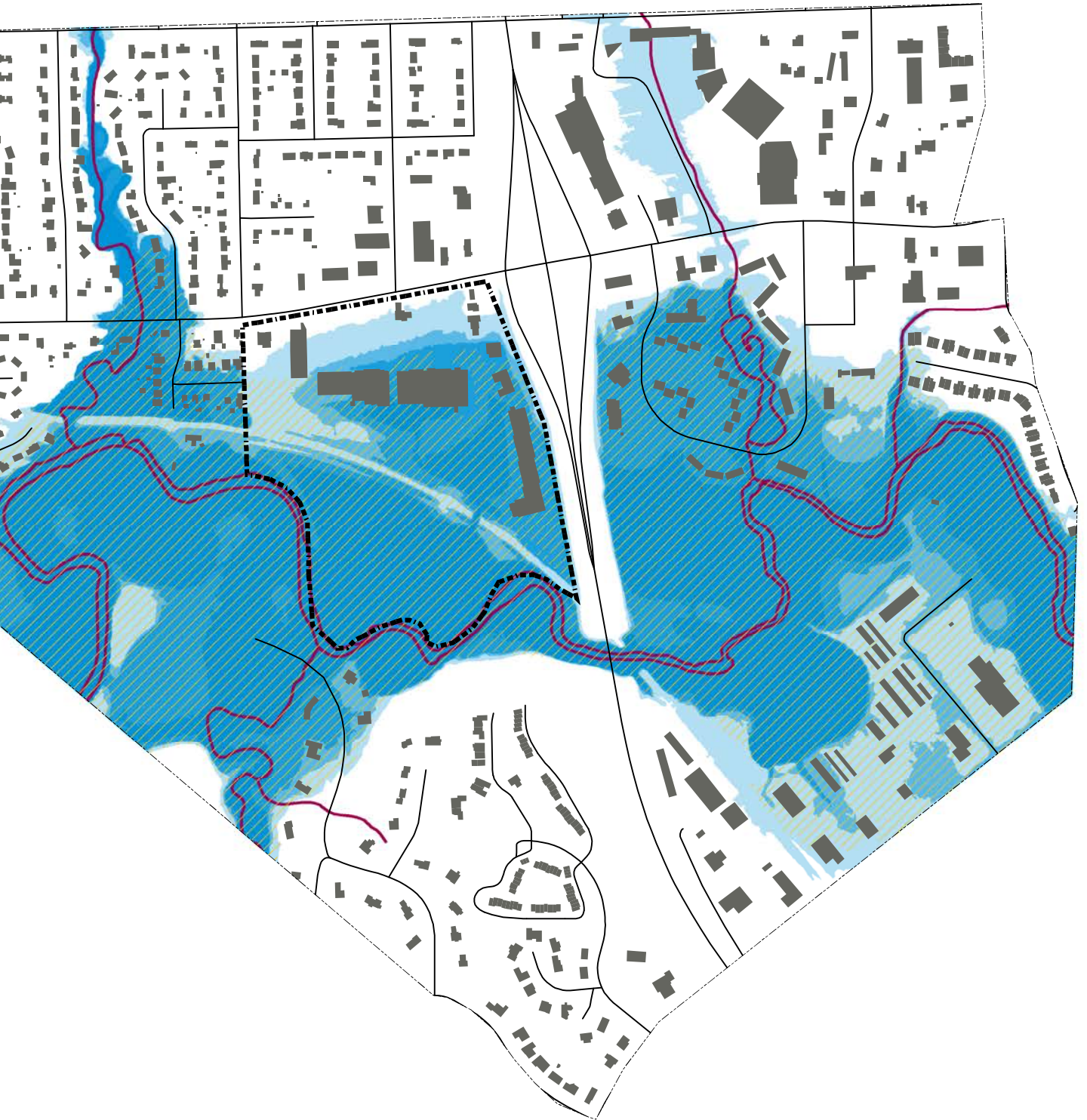
Village Plaza site has experienced problems with flooding in low-lying areas near Wildcat Creek, see Figure 4.3. The flooding during these instances has mainly occurred in the southeast corner of the site. It mainly affected the structure that formerly housed Valentino's and Time-Out Corner, the adjacent parking area, and the land immediately south of Ray's Apple Market. Flooding remains an issue for future development on the site. Figure 3.3 shows the existing floodplains including the 2011 flood for the site and the surrounding area (Abraham, Bennett, Harper, Hoetmer & Zundel, 2012).



Legend

-  flood 6 2 11 plus 2 ft
-  Hydro_clip
-  FEMA_10yr_Prelim_Clip
-  FEMA_50yr_Prelim
-  FEMA_100yr_Prelim_Clip
-  FEMA_500yr_Prelim_Clip

Right Figure 4.3 Village Plaza - Existing Flooding Dilemma



VILLAGE PLAZA EXISTING CONDITIONS



LINEAR TRAIL FACING SETH CHILD'S ROAD



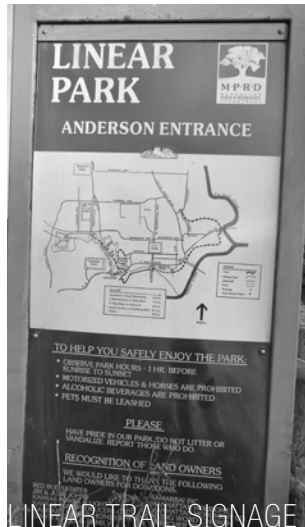
WEST PORTION OF VILLAGE PLAZA



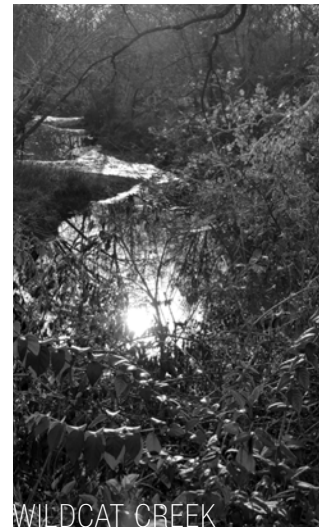
VILLAGE PLAZA FROM ANDERSON AVE.



2011 VILLAGE PLAZA FLOODING



LINEAR TRAIL SIGNAGE



WILDCAT CREEK

MHK BRIEF: THE CHALLENGE

In this hypothetical scenario, the City of Manhattan and the Isaiah Greene Development Group (IGDG) act as the clients that desire the redevelopment of this planned unit development (PUD) and employ the design team(s) to create proposals to revitalize the underutilized real estate. The Isaiah Greene Development Group (IGDG) is a development organization that seeks to amend the PUD so that it may become a denser, more varied type of development. Additionally, because Village Plaza is an underperforming commercial district, the developer identifies the dilemmas as being a result of high tenant turnover, surrounding competition of similar development, and the over saturation of uses currently on site.

The City of Manhattan has responded to IGDG's proposal in agreeance only if certain criteria are met through the development proposal. The development proposal must address the current flooding issues, enhance bike and pedestrian trail connectivity, and include a residential component to the development and masterplan. The design teams are hired as the development strategists and design team to create a viable project and create a convincing argument for amending the PUD of Village Plaza.

- Must keep tenants throughout length of lease and keep no fewer than 25% of the tenants. At the time of development the following leases will remain: Ray's Apple Market (five years), Landmark Bank (five years), 4 Olives (three years), and Local (three years).
- Utilize public financing incentives and strategies only where necessary
- Brand the site under a new and inspiring identity
- Some housing must exist on site
- The development must include a mixture of uses
- The development plan must accommodate new bike infrastructure
- Land must not be inhabited on the ground floor if within the 10-year flood plain
- Floodway south of the trail is not buildable for inhabitable structures
- The development plan must include a development strategy with a timeline for development
- Diagrams of any proposed mass transit are required along with a general feasibility analysis
- A graphic description of flood management must exist

Economic Development

Manhattan Metropolitan Statistical Area's regional economy is specialized in six core sectors: construction, retail trade; education, healthcare, and social services; arts, entertainment, recreation, accommodation, and food service; public administration; and armed forces (Regional Economic Analysis 2012, City of Manhattan). Much of this concentration is likely to be due to the influence of Fort Riley and KSU on the region's economy, as well as the status of Manhattan as a regional outlet for retail goods and personal services. Manhattan, KS has maintained an unemployment rate lower than the national average, state average and unemployment in the neighboring cities. The City's Sales Tax income has also continuously increased since 2010 (City of Manhattan Economy Snapshot).

Transportation Networks

The Flint Hills Area Transportation Agency, known locally as ATA, is a public bus system that serves Manhattan and Riley County, Junction City, Fort Riley, Green Valley and St. George in Pottawatomie County. Currently, ATA does provide a fixed transit route that terminates at Ray's Apple Market and circulates back through the west side of Manhattan.

Linear Trail

Linear trail is a cycling/pedestrian trail that features a route around the southern half of Manhattan. The trail is just over nine miles in length and has a surface that is a combination of abandon railroad, levee, and crushed gravel trails. The trail is immediately adjacent to the Village Plaza site that is the location for this project, as it runs along the southern and western borders of the property. The trail has two access points immediately adjacent to Village Plaza: one near the southeast corner of the property and one at the northwest corner where the property meets Anderson Avenue.

Assumptions

To address the needs of the Community of Manhattan and creating a feasible and compelling plan for the development site, each design must adhere to the following assumptions:

- **Zoning:** The City of Manhattan has no limitations on use or density of development
- **Existing Uses:** The property currently consists of several strip retail buildings integrated with other tenant uses. UDD teams may choose to retain these structures and reprogram them if desired.
- **Affordable Housing:** will be changed based on housing needs identified based on analysis
- **Open Space:** The City of Manhattan has no open space requirement, but it can be assumed that the Community of Manhattan would desire open space amenities that include the use of Wildcat Creek.
- **Rights of Way and Circulation Patterns:**
Local Streets: UDD teams may choose to close and create public streets within the development site. Teams may also change circulation patterns.
- UDD teams must comply with the City of Manhattan's rights of way regulations.
- **Parking:** Parking on site must adhere to the City of Manhattan's parking requirements plus include additional necessary parking to address proposed residential and office uses. Due to the flooding issue on site, parking cannot be located below grade.
- **Start of Development:** Year 0 (planning, permitting etc.) is 2016-2017 and the year to begin construction or actual redevelopment is 2017.
- **Economic Awareness:** The design proposal must demonstrate the awareness of current economics of the site, the study area, and the City of Manhattan.

(Adapted from ULI, 2012)

Deliverables

The core presentation will consist of a series up to six 11inch x 17 inch boards for the urban design scheme.

Graphic techniques are entirely at the discretion group. Scale drawings will include a graphic scale and a north arrow. The maximum of six design boards will also incorporate limited statements describing site design and development concepts, public infrastructure within the site—including circulation and open space—investments, and market options and strategies. Text—in the form of charts, graphs, matrices, spreadsheets, timelines, etc.—will analyze the costs for infrastructure, buildings, open space, and the value that they will create. Drawings may be in the form of plans, sketches, and collages and will describe the architectural and other design concepts for the public and private realms. Any "big ideas" will be represented graphically and if text is included, will be limited to labels, call outs, and such. Written material should be as succinct as possible, using bullet points where possible. Maps, plans, and drawings may be at any scale, but the chosen scale will be clearly indicated.

The submissions should include the following five general elements: 1) planning context and analysis, 2) master land use plan, 3) urban design, and 4) site specific illustrations. The details of these elements are left up to the group, but below are some detailed guidelines. Other elements that the group feels are needed to tell the story may also be included, provided the six-board rule is followed.

1) Planning context and analysis

This should be illustrated with an overall annotated plan and/or diagram drawn at a scale that describes overall patterns and concepts for regional issues the team considers relevant. These might include, for example:

- (a) land use;
- (b) circulation (pedestrian, vehicular, transit, etc.);
- (c) open space;
- (d) environmental and sustainability considerations;
- (e) image and character of the area;
- (f) social and economic concerns;
- (g) community planning and infrastructure concepts; and
- (h) private-sector development concepts.

2) Master land use plan

The land use planning drawings must show:

- (a) land and building uses;
 - (b) blocks and streets;
 - (c) location of transit line(s) and stops/terminals;
 - (d) other public infrastructure;
 - (e) connections to neighboring blocks; and
 - (f) general concepts for landscape and open space.
- APA's Activity-Based Classification Standards will be used for color coding. For mixed uses, the group may use a technique such as cross-hatching to signify overlapping uses.

3) Urban design

The urban design for your development site must show:

- (a) transit and other infrastructure;
- (b) greenways and open spaces;
- (c) paths, bikeways, pedestrian connections, and other means of access to the neighborhood;
- (d) environmental, sustainability, and aesthetic values; and
- (e) at least one each of: three-dimensional view (perspective/axonometric), plans, sections, and relevant details.

4) Site-specific illustrations of new development

The presentation should include annotated drawings similar to a concept design that zooms in on the site and depicts the portion that the group actually develops within the ten-year hold. This content might include plans, elevations, sections, and other renderings, all emphasizing the public space aspects, connections, and interrelationships within the project and to the neighborhood beyond the project. The phases should be clearly identified, but the group only needs to provide detailed illustrations for what the team actually develops within the ten-year hold. Undeveloped pads must be accounted for, but the group does not need to draw them in detail (Abraham, Bennett, Harper, Hoetmer & Zundel, 2012).

RESPONSE

Working collaboratively with Landscape Architecture student Kylie Harper, the initial redevelopment proposal was created in a rapid two-week design charette. With two people working on the project and one discipline represented, the proposal demonstrates a landscape architectural approach to this type of development. The Village Plaza site enabled the methodology to be employed quite frequently as the proposal resembled a greyfield redevelopment into a town center typology. Phase I of Briarcliffe Village is developed as a framework plan that builds off of the existing Briarcliffe Park south of Wildcat Creek and merges with the existing Village Plaza development.

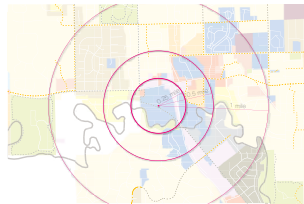
BRILLIANT
BRILLIANT

BRIARCLIFFE VILLAGE

A CONTEMPORARY TYPOLOGY FOR THE FUTURE MANHATTAN

Manhattan, Kansas is a rapidly growing college town that seeks to redefine its communities through new sustainable development practices. With the population projected to increase significantly due to student enrollment at Kansas State University and the National Bio and Agro-Defense Facility (NBAF), Manhattan is facing potential housing demand issues. In addition to the housing demand, Manhattan faces environmental issues involving more frequent and intense flood events along Wildcat Creek. In effort to remediate this flooding issue

and plan for the future housing demand, the City of Manhattan has recognized the need for more sustainable development models. The opportunity is realized through the redevelopment of the underperforming commercial center, Village Plaza. Village Plaza contains multiple dilemmas that exemplify the typical developments throughout the city such as a lack of identity, connectivity issues, flooding hazards, and continuing underperformance. **Briarcliffe Village** is the answer to these issues.



SITE CONTEXT

- Proximity Radius
- PUD
- C-1
- C-2
- C-3
- C-4
- C-5
- C-6
- I-2
- I-3
- I-4
- I-5
- LM-BC
- R-1
- R-2
- R-3
- R-4
- R-5
- R-M
- R-8
- U

DESIGN STRATEGY



EXISTING FIGURE GROUND



EXISTING CIRCULATION

- Primary
- Tertiary
- Linear Trail



FLOODPLAIN

- 500 year Floodplain
- 100 year Floodplain
- 50 year Floodplain
- 10 year Floodplain
- 2011 Flood

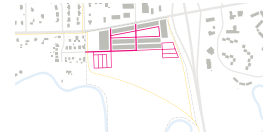


EXISTING LAND USE AND VACANCIES

- Sales and Services
- Public Institutions and Health Care
- Offices
- Vacancies
- Wildcat Creek Habitat
- Linear Trail

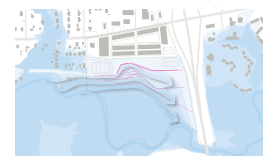


PROPOSED FIGURE GROUND



PROPOSED CIRCULATION

- Primary
- Tertiary
- Linear Trail



PROPOSED TERRACE STRATEGY

- 500 year Floodplain
- 100 year Floodplain
- 50 year Floodplain
- 10 year Floodplain



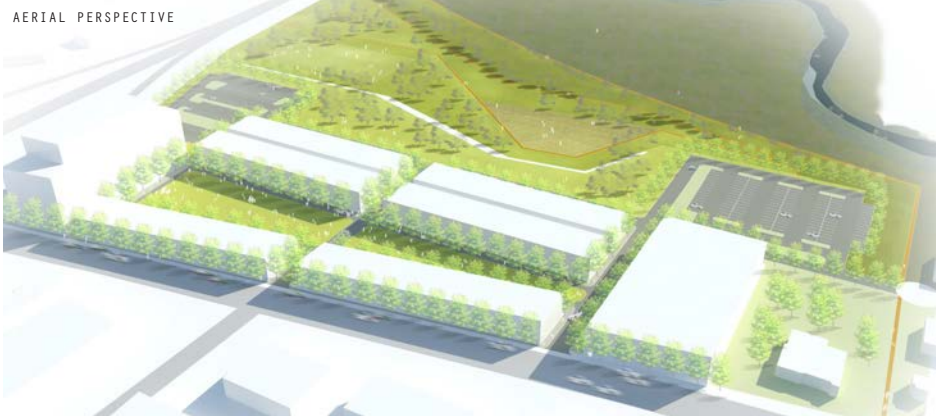
PROPOSED PROGRAM

- Primary Plaza Space
- Secondary Plaza Space
- Mixed-Use Development
- Community Center
- Playground
- Multifunctional Fields
- Community Garden
- Passive Rest Areas
- Wildcat Creek Habitat
- Linear Trail

CONCEPT

SITE INVENTORY

SCHEMATIC DESIGN



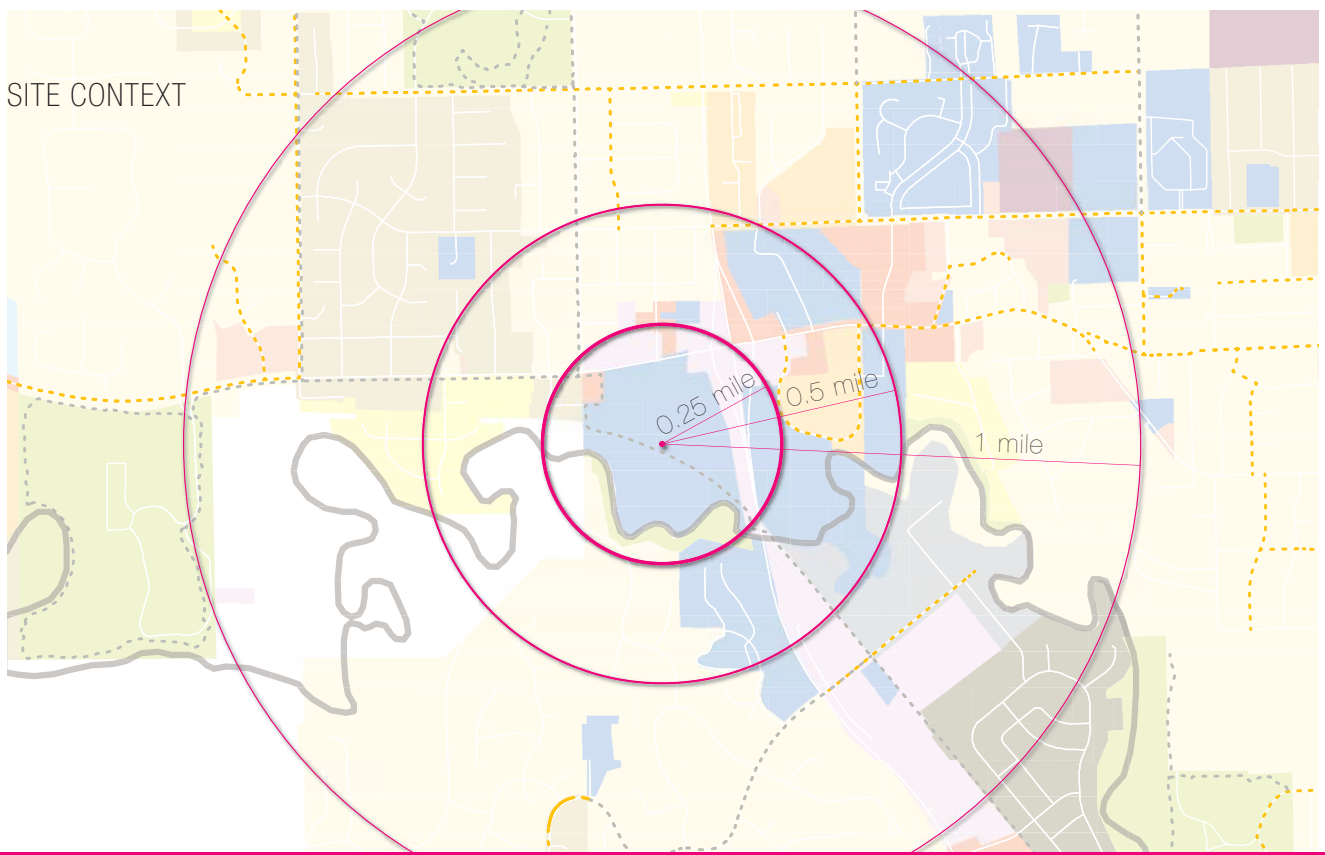
Briarcliffe Village is a culmination of big moves that encourage a more contemporary and sustainable model of development. Propelled by the recurring flood events of Wildcat Creek, the existing connectivity issues, and the underutilized single-use function of Village Plaza, Briarcliffe Village revitalizes the area by creating a new destination and identity for West Manhattan. Briarcliffe Village moves toward a private + public partnership in which the City of Manhattan expands the recreational space of Briarcliffe Park to engage Wildcat Creek and ultimately create a district typology unknown to Manhattan. Boasting a mixture of uses, a pedestrian friendly environment, a range of residential options, and a copious amount of open space, Briarcliffe Village provides a rich urban experience that informs the future development of Manhattan.

EXISTING	PHASE ONE	PHASE TWO	PHASE THREE	PHASE FOUR	PROPOSED TOTALS
Timeline: present Residential: 0 units Retail: 118,895 sf Civic: 108 Office: 44,149 sf Health: 25,910 sf Infrastructure: parking lots, linear trail	Timeline: 2018-2019 Residential: 151 units Retail: 37,878 sf Civic: 4,258 sf Office: 19,059 sf Health: 45,000 sf Infrastructure: riparian clearing, central space construction, street adjustments	Timeline: 2019-2021 Residential: 16 Retail: 35,850 sf Civic: 0 Office: 0 Health: 45,000 sf Infrastructure: complete access roads and relocation of tenants	Timeline: 2021-2023 Residential: 16 units Retail: 37,809 sf Civic: 0 Office: 18,357 sf Health: 0 Infrastructure: back roads, parking lots complete, open space, central space complete	Timeline: 2023-2026 Residential: 16 units Retail: 0 Civic: 0 Office: 0 Health: 0 Infrastructure: Briarcliffe park completion	Timeline: built out Residential: 183 units (+183%) Retail: 111,537 sf (+9%) Civic: 4,258 sf (+4255%) Office: 37,426 sf (+18%) Health: 45,000 sf (+73%) Infrastructure: floodplain restoration, Briarcliffe park, Briarcliffe square

DEVELOPMENT PLAN

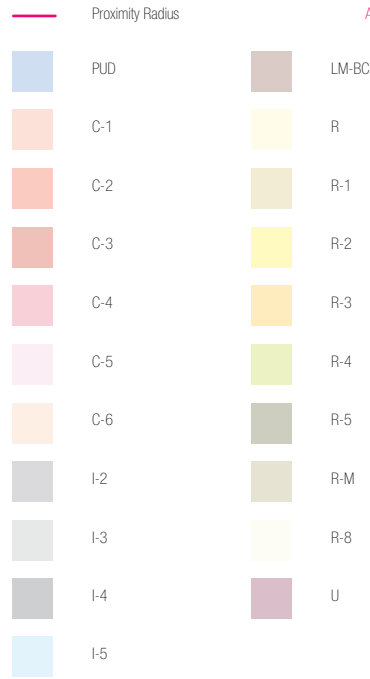
Above Figure 4.5 Briarcliffe Village - Phase I Board

SITE CONTEXT



Looking at the surrounding area, Village Plaza offers a unique site with walkability of many nearby neighborhoods, connected to the linear trail, and is the only large planned-unit development (PUD) on the west side of Seth Childs Road, see Figure 4.6.

Village Plaza possesses excellent visibility into the site with vehicular traffic looking down from Seth Childs Road and Anderson Avenue. Anderson Avenue acts as one of the main arterial spines connecting East and West Manhattan; providing commuters, visitors and residents to pass by frequently.



Above Figure 4.6 Briarcliffe Village - Site Context

DESIGN GOALS



Above Figure 4.7 Briarcliffe Village - Design Strategy

The primary concept of Briarcliffe Village (Figure 4.7) is a culmination of 4 design goals:

- Develop a compact mixed-use development adjacent to Anderson Ave. relinquishing the 100 yr. floodplain
- Encourage flooding onto the site, restoring ecological function of a terraced floodplain
- Retain and enhance the linear trail connection currently on-site
- Bring the existing Briarcliffe Park north onto site to create a community park for the development and adjacent neighborhoods

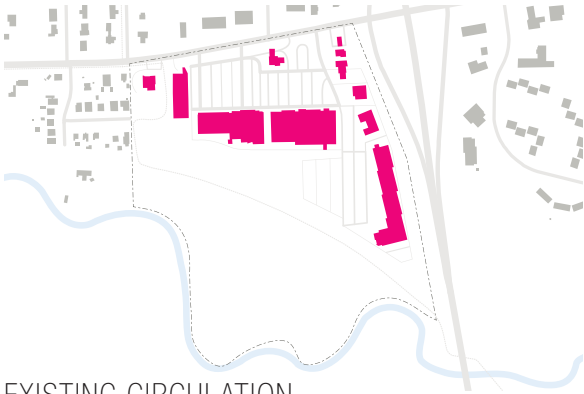
Briarcliffe Village is a culmination of big moves that encourage a more contemporary and sustainable model of development. Propelled by the recurring flood events of Wildcat Creek, the existing connectivity issues, and the underutilized single-use function of Village Plaza, Briarcliffe Village revitalizes the area by creating a new destination and identity for West Manhattan. Briarcliffe Village moves toward a private-public partnership in which the City of Manhattan expands the recreational space of Briarcliffe Park to engage Wildcat Creek and ultimately create a district typology unknown to Manhattan. Boasting a mixture of uses, a pedestrian friendly environment, a range of residential options, and a copious amount of open space, Briarcliffe Village provides a rich urban experience that informs the future development of Manhattan.



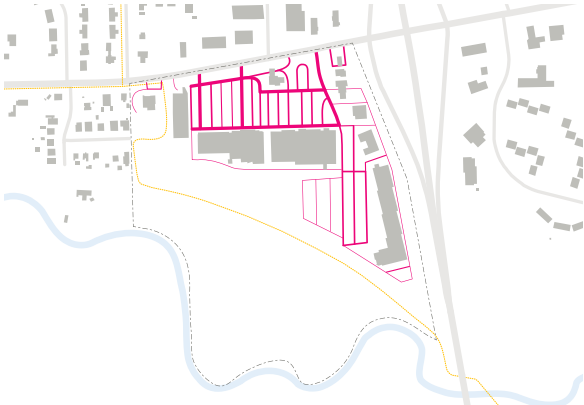
SITE PROGRAM

- 1 Max Fitness
- 2 Max Bodyworks
- 3 Local Food & Friends Restaurant
- 4 Manhattan Running Co.
- 5 Ray's Apple Market
- 6 Uniforms Etc.
- 7 4 Olives Restaurant
- 8 Computer Hospital
- 9 ATA Bus Community Center
- 10 Briarcliffe Community Garden
- 11 Multifunctional Field
- 12 Briarcliffe Square
- 13 Briarcliffe Playground
- 14 Linear Trail
- 15 Briarcliffe Park/Wildcat Creek Habitat

EXISTING FIGURE GROUND

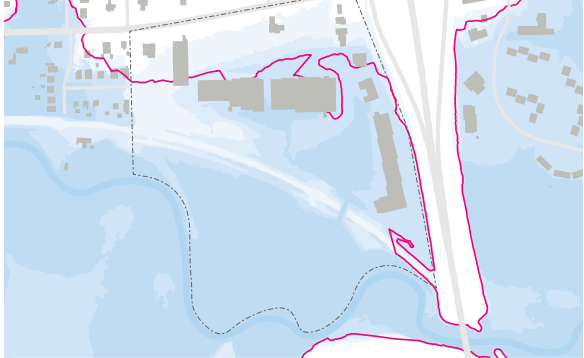


EXISTING CIRCULATION



- Circulation
- Linear Trail

FLOODPLAIN



- 500 Year Floodplain
- 100 Year Floodplain
- 50 Year Floodplain
- 10 Year Floodplain
- 2011 Flood

EXISTING LAND-USE AND VACANCIES



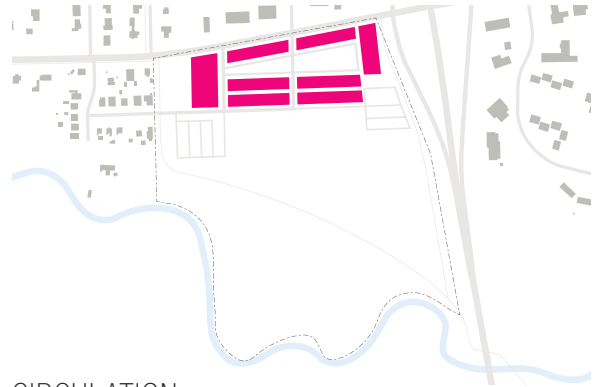
- Sales and Services
- Public Institutions and Health Care
- Offices
- Vacancies
- Wildcat Creek Habitat
- Linear Trail

EXISTING CONDITIONS

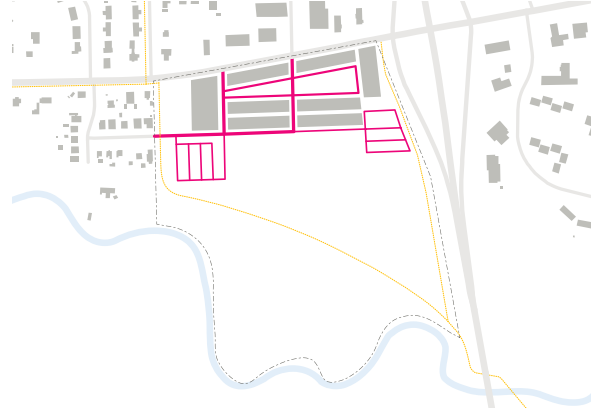
Shown to the left, Figure 4.9, is the inventory presented of critical aspects that should be addressed within the new proposal.

Left Figure 4.9 Braircliffe Village - Existing Conditions

FIGURE GROUND



CIRCULATION

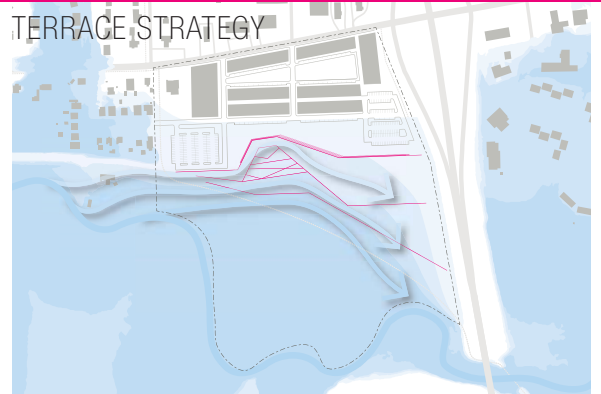


- Circulation —
- Linear Trail —

PROPOSED STRATEGIES

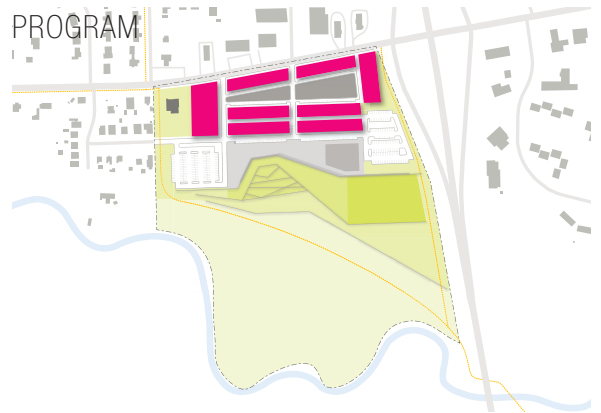
To the right, Figure 4.10, is how Briarcliffe Village responds to those critical aspects identified. By concentrating building footprints near Anderson Ave, rethinking vehicular circulation on site, creating a flood management system and implementing a new program for open spaces, Briarcliffe Village offers a new framework of development driven by the literature research.

TERRACE STRATEGY



- 500 Year Floodplain —
- 100 Year Floodplain —
- 50 Year Floodplain —
- 10 Year Floodplain —
- Terraces —

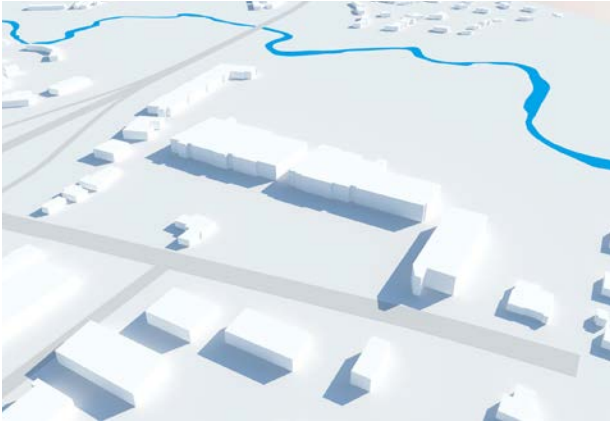
PROGRAM



- Primary Plaza Space —
- Secondary Plaza Space —
- Mixed-Use Development —
- Community Center —
- Playground —
- Multifunctional Field —
- Community Garden —
- Passive Rest Areas —
- Wildcat Creek Habitat —
- Linear Trail —

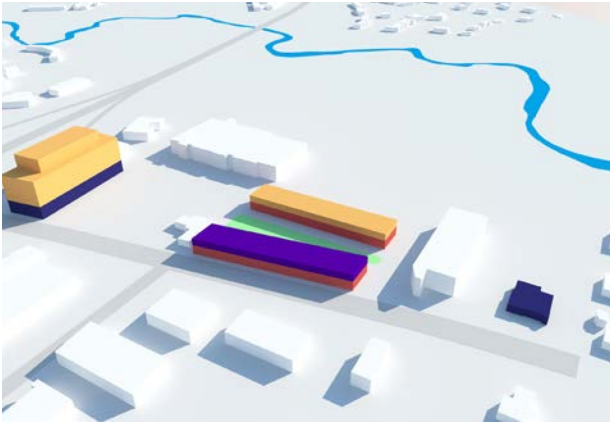
Right Figure 4.10 Briarcliffe Village - Proposed Strategies

PHASING STRATEGY



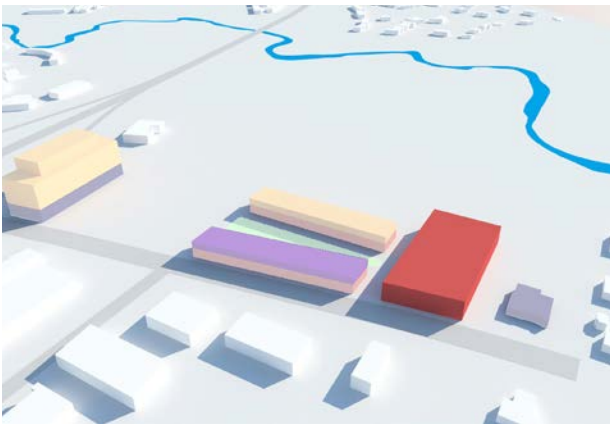
EXISTING CONDITIONS

Phasing strategy is critical to these type of projects due to the nature of tenant lease timelines. In accordance with the Village Plaza brief, certain tenants such as Local Restaurant, 4 Olives, Ray's Apple Market, and Landmark Bank all possess specific lease dates. Throughout the redevelopment process these tenants are accounted for, coordinating with critical establishment of the open space of Braircliffe Square and Briarcliffe Park.



PHASE I

Phase I demolishes the existing Max Fitness building and relocating on the east side, establishing the Max Fitness tower. Answering the demand of housing, the tower building creates the unique mixed-use building that offers a gym retail base for visitors and residents alike. Phase I also creates the west part of Briarcliffe Square utilizing the enclosure offered by the two existing buildings.



PHASE II

Phase II continues by the relocation of Ray's Apple Market to the proposed west anchor location of the town-center development. Landmark Bank is removed and Waters Street is established as the entry point into the development.

PHASE III

Phase III replaces the primary parking lot adjacent to the Max Fitness tower and completes the town-center typology by connecting both anchors and enclosing Braircliffe Square.



PHASE IV

Completion of Phase IV results in the construction of the townhomes along the back side of the development facing Braircliffe Park.



TOTAL BUILDOUT EXISTING

Timeline: present
Residential: 0 units
Retail: 118,595 sf
Civic: n/a
Office: 44,149 sf
Health: 25,910 sf
Infrastructure: parking lots,
linear trail

PROPOSED

Timeline: 2026
Residential: 183 units
(+183%)
Retail: 111,537 sf (-6%)
Civic: 4,256 sf (+4256%)
Office: 37,426 sf (-18%)
Health: 45,000 sf (+73%)
Infrastructure: floodplain
restoration, Briarcliffe park,
Briarcliffe square



All Figure 4.11 Braircliffe Village - Phasing Strategies

PHASE I FEEDBACK

On November 25, Kylie and I presented to the City of Manhattan our proposal, Briarcliffe Village. They were compelled by creation of more park space and the terracing strategy to address the on-site flooding issues. Primary concerns of the design feasibility were to the visual access into the site from Anderson Avenue, parking requirements were not large enough to accompany the new development, and the design of the open spaces lacked clear communication of the place created and the types of activities that the new park could support.

Phase II is the refinement of Phase I that addresses the concerns raised by the City. A refined design of Briarcliffe Village allows for a more thorough integration of the literature research. Phase II is a refinement of the initial proposal. To further develop research, Phase II of Briarcliffe Village is an individual proposal done by the author. The second proposal of Briarcliffe Village provides a clear vision of open space design with respects to creating a successful greyfield-redevelopment-into-town-center project.

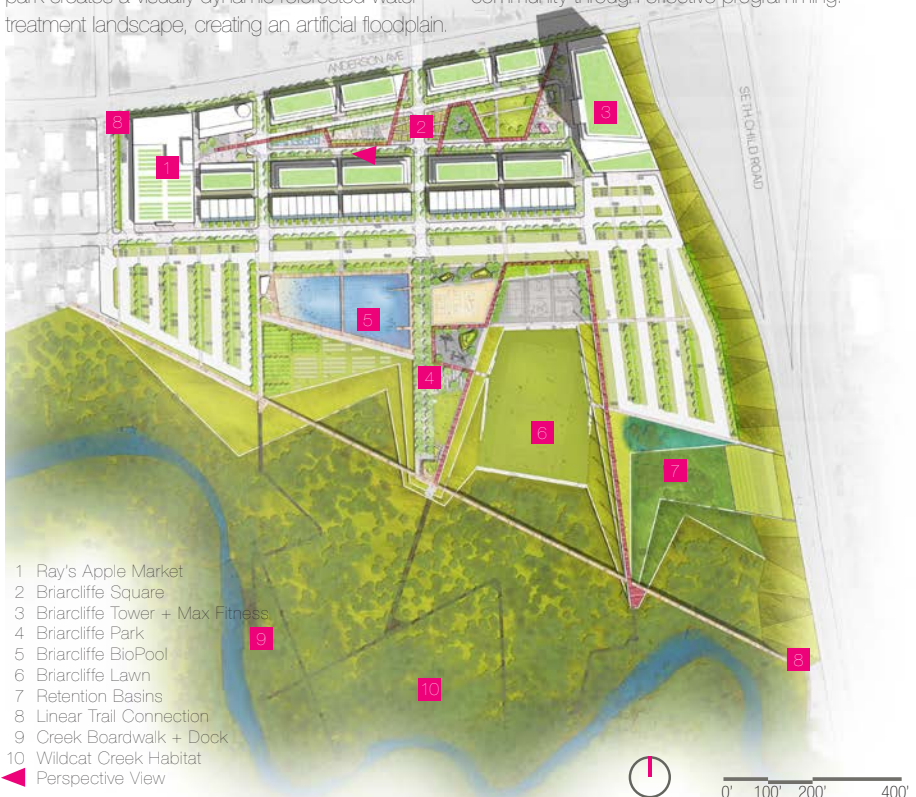
BRIARCLIFFE VILLAGE

MANHATTAN'S CONTEMPORARY

A LIVABLE COMMUNITY

Briarcliffe Village is a private + public partnership developed to create a new community typology for the City of Manhattan. Extending from south of Wildcat Creek, the existing Briarcliffe Park becomes part of this new mixed-use community that builds upon the old Village Plaza site. By informing the development near the edge of Anderson Ave. and puncturing the existing dike (linear trail), the new park creates a visually dynamic reforested water treatment landscape, creating an artificial floodplain.

With a system of wetlands, terraces, and bio-pools, the original function of this site is restored while providing a town center development integrated with community style retail, office facilities, boutique retail, and a range of housing options. The design of the open spaces within Briarcliffe Village facilitates movement from structure to structure, enhances daily activities, and fosters a strong sense of community through effective programming.



- 1 Ray's Apple Market
 - 2 Briarcliffe Square
 - 3 Briarcliffe Tower + Max Fitness
 - 4 Briarcliffe Park
 - 5 Briarcliffe BioPool
 - 6 Briarcliffe Lawn
 - 7 Retention Basins
 - 8 Linear Trail Connection
 - 9 Creek Boardwalk + Dock
 - 10 Wildcat Creek Habitat
- ◀ Perspective View

10 YR FLOOD



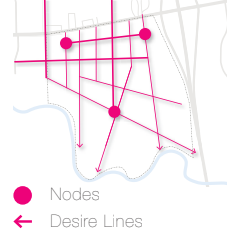
50 YR FLOOD



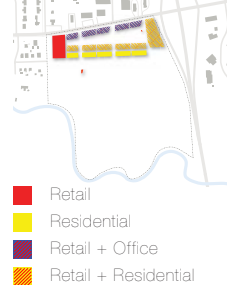
100 YR FLOOD



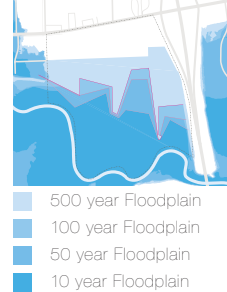
PARTI



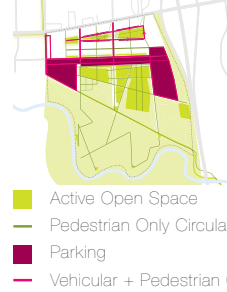
LAND-USE



FLOOD MANAGEMENT



STRATEGIC CIRCULATION



VISION PLAN

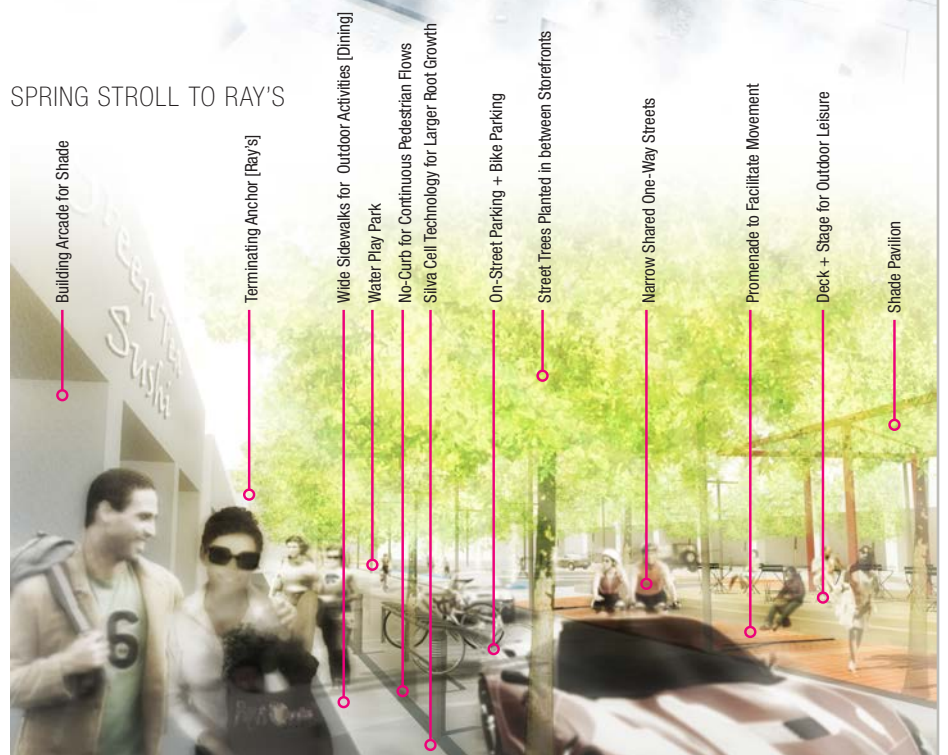
PROSPERITY LIFESTYLE CENTER

Y

BUILDING A HEALTHIER FUTURE FOR MANHATTAN



SPRING STROLL TO RAY'S



CENTERSCAPES

Above Figure 4.12 Briarcliffe Village - Phase II Board

FUTURE VISION

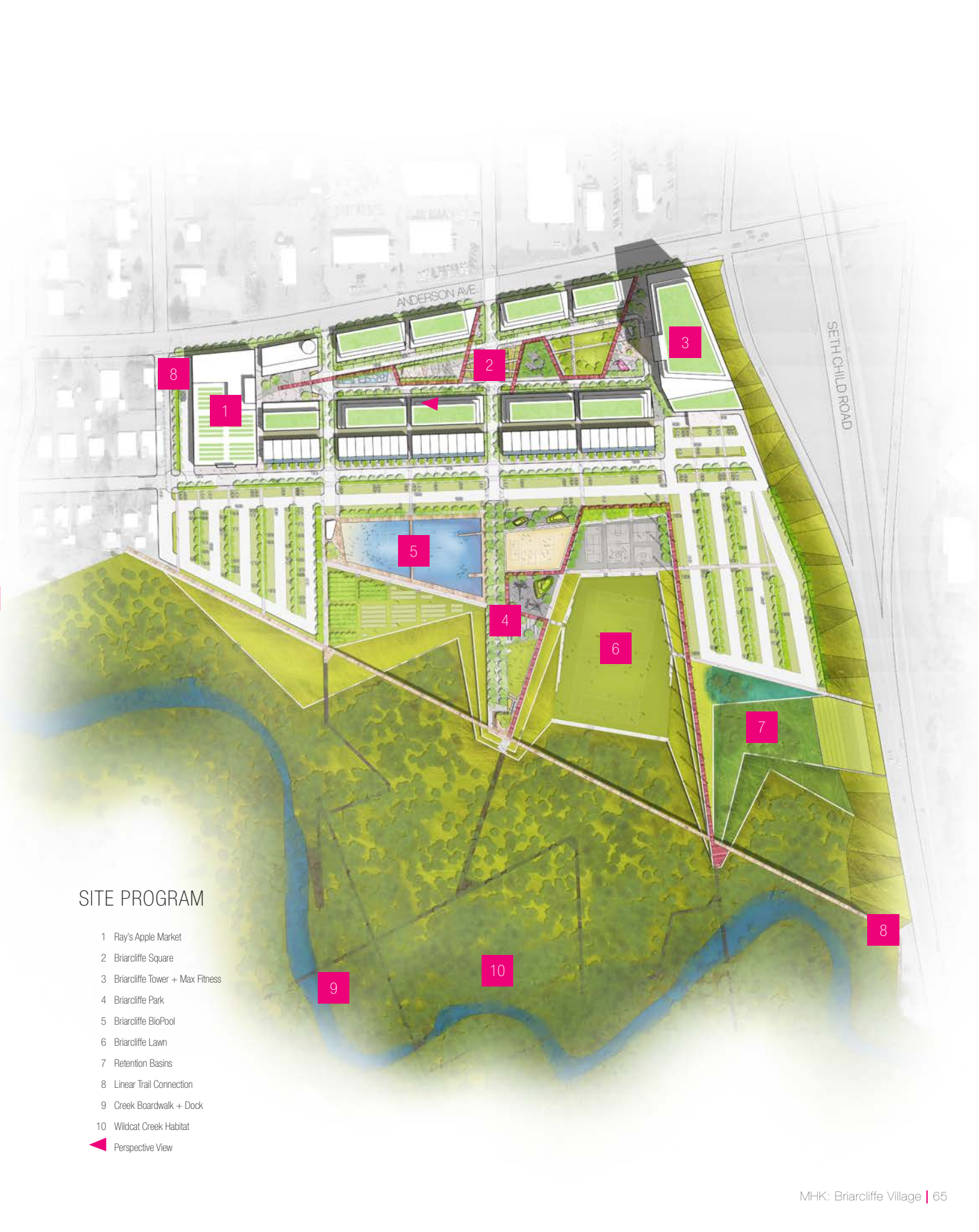


A COMMUNITY FOCAL POINT

The vision for Briarcliffe Village, Figure 4.13, creates a center point to the West Manhattan neighborhoods that becomes a destination node for the City and a new development typology for the future of Manhattan to model after. By enhancing the linear trail connection and building onto the existing ATA Fremont/Osage Bus route, the site becomes a transit hub that is strategically located adjacent to Anderson Ave. and Seth Childs Road. Briarcliffe Village, Figure 4.14, boasts of being the first mixed-use retail shopping experience in Manhattan that promotes walkability, healthier lifestyles, and active open spaces.

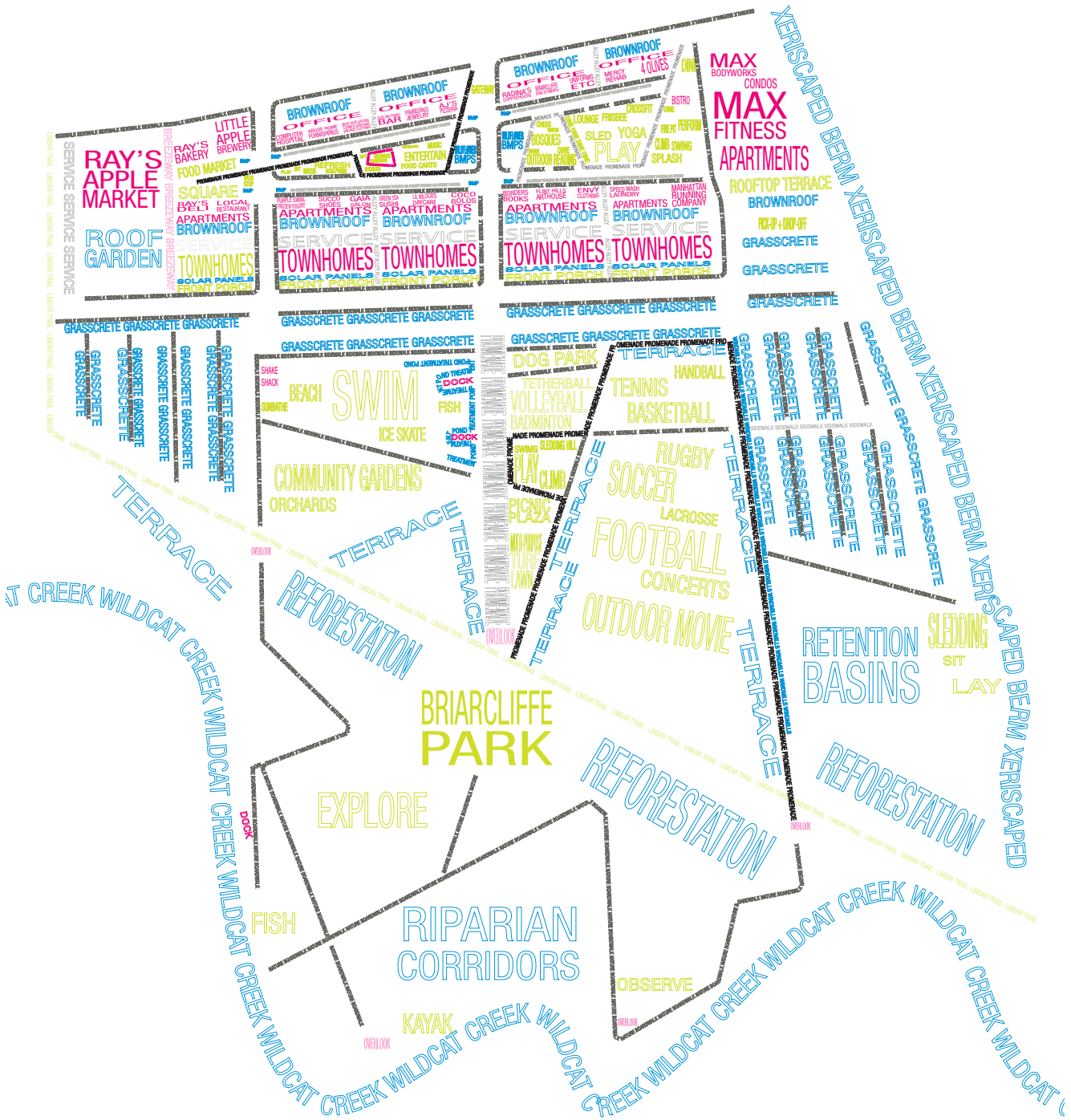
- Parks
- Briarcliffe Village
- - - Linear Trail System
- ← ATA Fremont/Osage Bus
- Streets

Above Figure 4.13 Briarcliffe Village - Vision Plan
Right Figure 4.14 Briarcliffe Village - Masterplan P2



SITE PROGRAM

- 1 Ray's Apple Market
- 2 Briarcliffe Square
- 3 Briarcliffe Tower + Max Fitness
- 4 Briarcliffe Park
- 5 Briarcliffe BioPool
- 6 Briarcliffe Lawn
- 7 Retention Basins
- 8 Linear Trail Connection
- 9 Creek Boardwalk + Dock
- 10 Wildcat Creek Habitat
- ▶ Perspective View

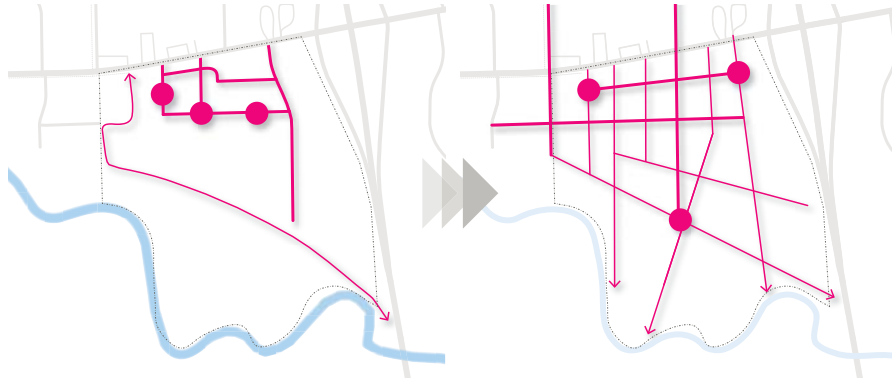


Above Figure 4.15 A Livable Community

Right Figure 4.16 Briarcliffe Village - Site Strategies

EXISTING

PROPOSED



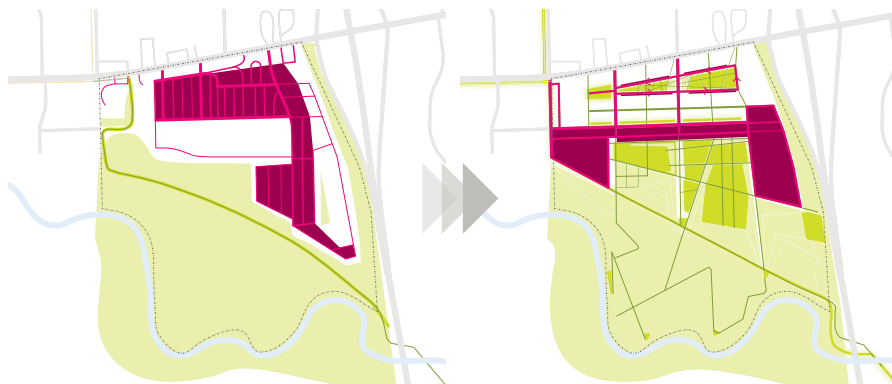
Utilizing desire lines and strategic anchor location encourages circulation to, from and throughout the site.

- Anchor
- ← Desire Lines



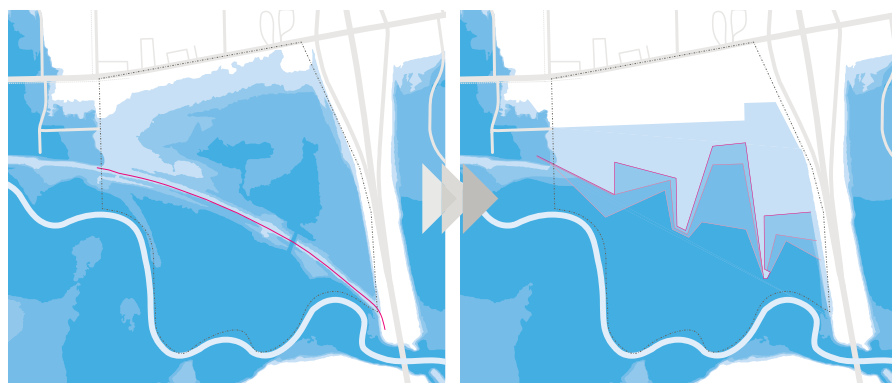
Utilizing the PUD zoning code, the site is redeveloped as a mixed-use development achieving the urban environment desired within town-center typologies.

- Retail
- Residential
- Retail + Office
- Retail + Residential



Existing site conditions lack a strategic integration of pedestrian paths, active open space, and a clear vehicular network that Briarcliffe Village offers.

- Active Open Space
- Pedestrian Only Circulation
- Parking
- Vehicular + Pedestrian Circulation



Rather than challenging flooding upon site, Briarcliffe Village anticipates and encourages flooding utilizing the artificial floodplain terraces created.

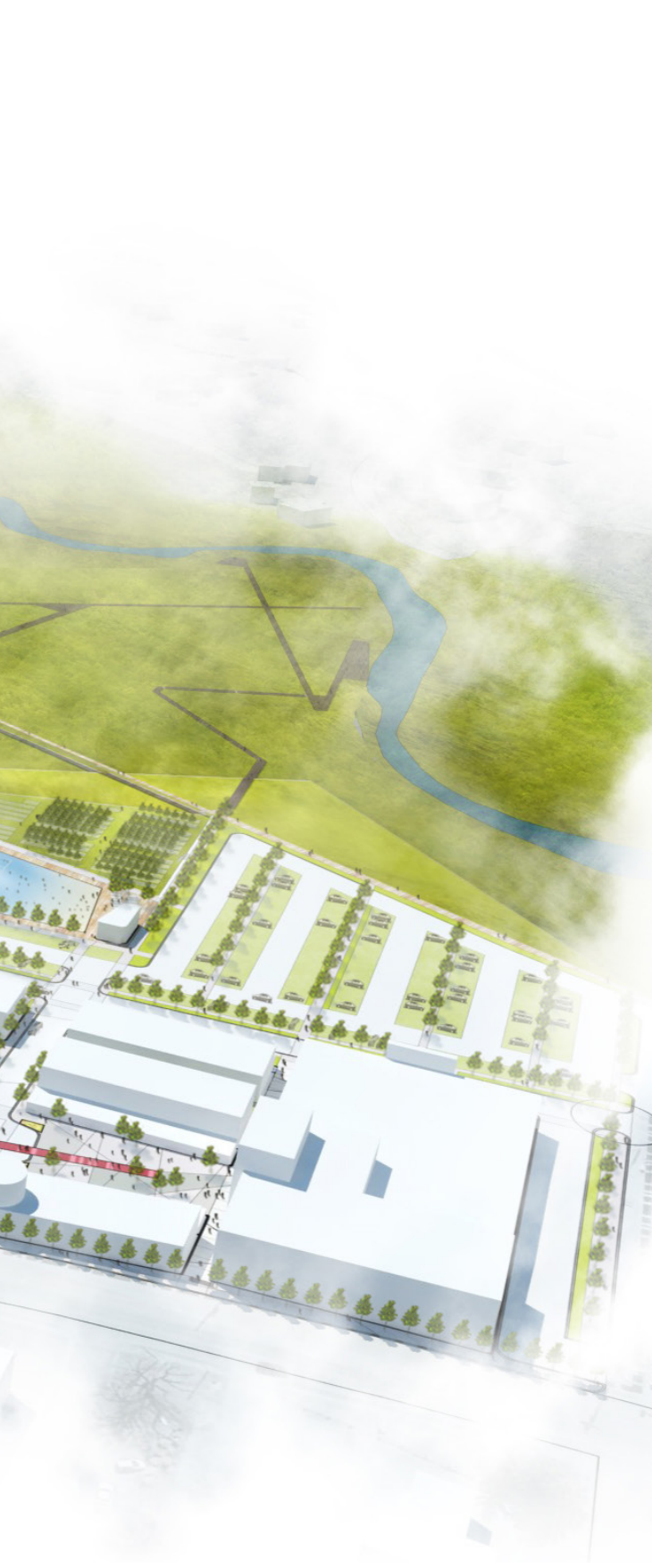
- 500 year Floodplain
- 100 year Floodplain
- 50 year Floodplain
- 10 year Floodplain

INFRASTRUCTURAL LANDSCAPE

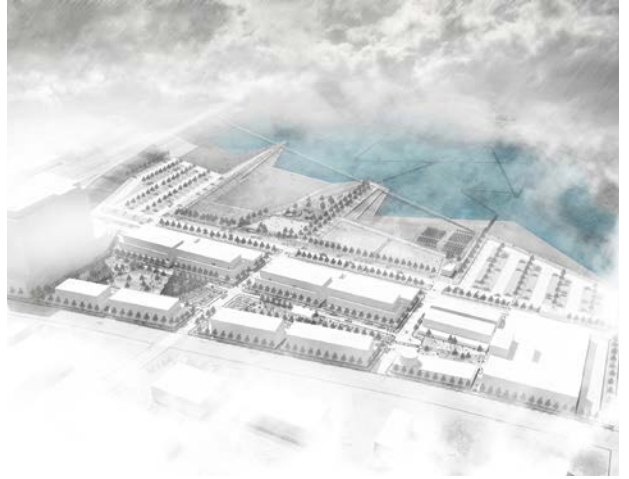


Above Figure 4.17 Briarcliffe Village - Aerial

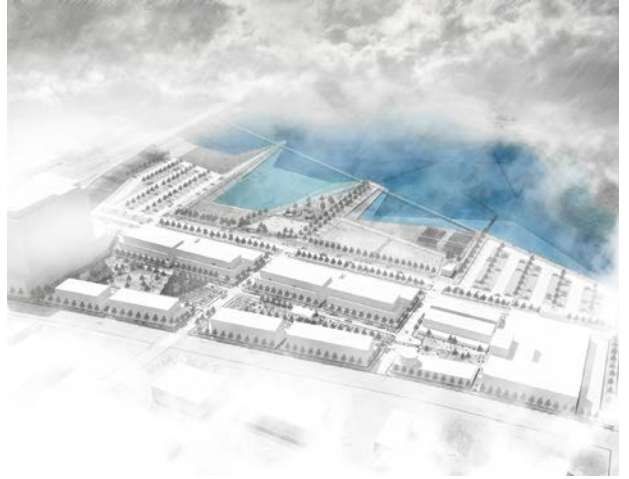
Right Figure 4.18 Briarcliffe Village - Flooding Strategies



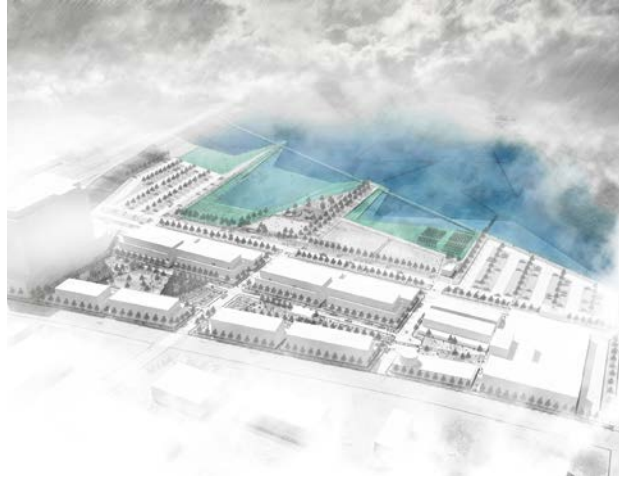
10 YR. FLOOD



50 YR. FLOOD



100 YR. FLOOD







Braircliffe offers a complete public realm experience offering street trees, wide sidewalks, a range of flexible open spaces, on-street parking, bike parking, generous seating and numerous opportunities for shade.

Left Figure 4.19 Summer Stroll to Ray's

PHASE II FEEDBACK

On March 1st, the UDD group presented each individual refinements to the redevelopment of Village Plaza in ways that addressed Phase I concerns as well as their individual research.

Briarcliffe Village was successful in terms of providing a vision of a liveable, walkable, mixed-use community that is foreign to the City of Manhattan currently. More importantly it addressed Phase I issues which were visibility into the site, parking requirements, and a clear idea of design of the open spaces.

Although the project lacked integration of other disciplines within the design process, it served its purpose well in terms of being a dry-run for the ULI Competition and acting as an experimental design project to implement literature research.

CONCLUSION

Briarcliffe Village proved successful in terms of resolving and revealing workflow process that was applicable to the ULI Competition. Thorough analysis of this project provides insight of how the literature informed the design and what inherit landscape architectural skills were utilized within the project. From this analysis, conclusions are drawn to what landscape architecture added to the project and how this is important to greyfield-redevelopment-into-town-center projects. The uniqueness of Briarcliffe Village is that it resembles a greyfield-redevelopment-into-town-center project in many ways and yet allowed for a heavy landscape component to be integrated. Although, this project lacks other disciplinary input, the scale of Briarcliffe Village allowed deeper design conclusions to be developed on how at the site level interior and exterior programs interact.

05 ULI: THE ARMORY





INTRODUCTION

EXPLORATIVE DESIGN II

The second explorative design project is the ULI Gerald D. Hines Student Competition which took place in the Downtown East site of Minneapolis, Minnesota. The brief for the 2013 ULI Hines Competition was released January 28 at 9:00 am. Prior to the competition, many hours were spent focused on team formation, scheduling, and research. Research revealed team formation was critical to success. This chapter speaks to the competition challenge, the team formation, and the explorative design project: The Armory.

Left Figure 5.1 Downtown Minneapolis Aerial



ULI BRIEF: EXISTING CONDITIONS

Background

The Minneapolis-St. Paul region had its beginnings in water. The region sits at the base of a gorge with the Mississippi River's only natural waterfall, which provided power to settlers and later enabled the development of lumber and flour milling industries. Today, the mills have all but disappeared but the Twin Cities still serve as the commercial and cultural hub for the state of Minnesota along with large swaths of the upper Midwest.

Just over 3.3 million people live in the Minneapolis-St. Paul-Bloomington Metropolitan Statistical Area (MSA), with 382,578 of those people residing in the city of Minneapolis. Historically, the region has been home to Scandinavian immigrants, Native Americans, and other northern European populations. In recent years, there has been an influx of new Americans, the largest populations of which are Somalis, who have tended to settle in Minneapolis, and the Hmong, who are concentrated over the river in St. Paul.

Downtown Minneapolis (Figure 5.3) is the largest employment center in the state, but much of that activity is concentrated in the Downtown West neighborhood. Downtown East, which is the focus of the 2013 competition, is home to the Minnesota Vikings stadium, along with, as you will see, a large number of surface

parking lots with smaller buildings scattered amongst them. Interest in this section of downtown has increased of late thanks to a plan to construct a new Vikings stadium that was approved by the Minnesota State Legislature in May 2012, Figure 5.4. This plan entails the construction of a new stadium with the space and amenities required by NFL teams, 2500 spaces in adjacent parking ramps for VIPs, and a variety of plaza spaces around the stadium itself, and has generated much interest in the redevelopment of the competition's study area as a regional center that can support new centrally located mixed-use opportunities such as residential, office, retail, and hospitality.

The region has been investing and planning for a far-reaching transit network, Figure 5.5. The Metropolitan Council, the region's MPO, is responsible for planning and funding of the network, and through their operating arm, Metro Transit, the transit agency, currently operates one light-rail line, Hiawatha, that extends from the downtown area south to the airport and onward to the Mall of America in Bloomington. There is also a commuter rail line, North Star, that connects communities to the north to downtown Minneapolis. The next major corridor, after the Central Corridor/Green Line connecting downtown St. Paul and Minneapolis opens in 2014, will be the Southwest Transitway, linking affluent suburbs to downtown.

Left Page Figure 5.2 ULI Site Boundaries

Thanks to the city's careful and innovative efforts in promoting transit, bikeways, and higher densities in downtown and in neighborhoods like Uptown and downtown's Warehouse District, Minneapolis is well on the road to becoming a model for urban living. The redevelopment of your study area, as described below, is a crucial piece of the city's continuing path to achieve this.

ULI Brief: The Challenge

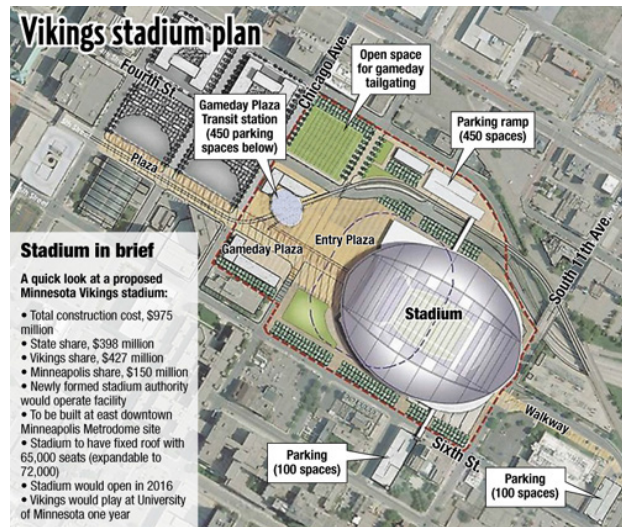
(NOTE: The challenge is based in reality, but certain details have been changed for the purposes of the competition. The scenario itself is complete hypothetical. Do not attempt to contact the "real world" owners of the parcels in question.)

The city of Minneapolis has long been keen on redevelopment in Downtown East that creates value for individual property owners, city residents, and the greater region. As development interest builds in Downtown East as a result of the approval of the plan for the new stadium, two property owners (henceforth referred to as "the owners") have entered into an agreement in which they evaluate the benefits and financial possibilities of combining their parcels, largely used as surface parking lots, to redevelop or sell as one large development site. These parcels comprise the entirety of Blocks F, G, H, I, K, M, and N and Parcel 2 on Block P on the parcel key map, and in total contain about 17.68 developable acres, not including public rights-of-way. The full primary study area is outlined in blue on Figure 5.6. Because they do not have internal capacity to manage this project, they have hired your team as master developers.

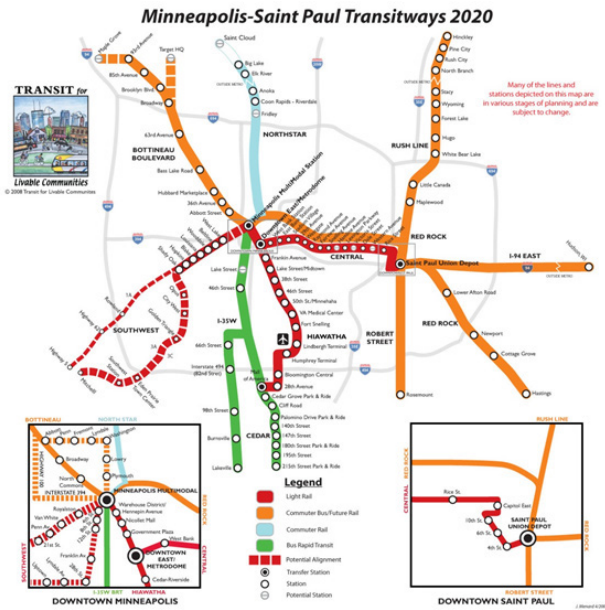
The city, eager to see this section of downtown grow into a neighborhood and regional destination, has provided an incentive for these property owners to redevelop, albeit with strings attached. The city has agreed to construct a 500-space parking ramp ("parking ramp" is a local term for structured parking) to serve your development and replace some of the surface parking removed through redevelopment. Your team will decide



Above Figure 5.3 Downtown Minneapolis Neighborhoods



Above Figure 5.4 Vikings Stadium Plan



Above Figure 5.5 Minneapolis - Saint Paul Transitways 2020

the best location and configuration for the ramp within your development. In addition, they have agreed to work with Hennepin County and the school district to support a property tax abatement of \$600,000 spread over the first phase of your project, provided that this money be used for public space, either in the public right-of-way (such as sidewalk widening or streetscaping) or within your parcels. As a condition for this assistance, you must commit to lease at least 100 of these spaces at a rate of \$3000 per space annually to serve your development for ten years, and you must include affordable units as part of your development (further details can be found in the Assumptions section of this document).

You may also choose to acquire and develop certain parcels outside of the primary study area if you feel it would further your design and development vision. Blocks A, B, C, D, E, O, P, Q, and R all contain parcels that are primed for redevelopment, a total of approximately 14.8 noncontiguous acres. The area is outlined in yellow on Figure 5.6. Some of these parcels have existing buildings that could be retained and adaptively reused, but most are vacant or being used as surface parking. The Armory Building, Parcel L, is historic and can be considered for adaptive reuse. . You have been given a detailed block-by-block diagram with information about each parcel within each block, including area and assessed value.



Above Figure 5.6 Competition Parcel Map

This will only be a value proposition for the owners if your proposed development can provide a return that meets or exceeds the income the properties currently generate. The proposal should also be able to serve as a catalyst for further redevelopment in the area that will enhance the value of the owners' original investment. For this reason, they have also asked that you develop a broad vision plan for a larger study area.

As the master developer, the owners have asked you to assist them in ascertaining the following:

- what is their combined parcels in the primary study area currently worth for their investment contribution;

- the current market value for any additional parcels your team chooses to acquire and develop;
- what type of redevelopment the market would support;
- what the transformative brand and vision would be to create value for (1) Downtown East property owners; (2) city residents; and (3) the greater region;
- the appropriate timing for Phase II;
- what the total redeveloped site would be worth at the end of a ten-year hold;
- what subsidies beyond the city's contribution would be needed (if any) and from where in order to make redevelopment feasible; and
- if sold at the end of year ten, what return would the entire project provide to the owners(both leveraged and unleveraged before tax IRRs).

Detailed phasing strategy, including timing

In order to meet your clients' needs, your master developer team will need to:

- Understand the social, historical, demographic, political, and economic forces in the Greater Twin Cities area and analyze the study area comprising greater downtown Minneapolis and bordering neighborhoods in relation to the smaller development site within Downtown East. This analysis will take into account the context of the development site's relationship to the rest of Downtown East as well as the surrounding neighborhoods downtown and just across Interstate 35 West and take into consideration land use, circulation, infrastructure, demographics, site forces, etc.
- Propose a master land use plan for the development site that accounts for land and building uses, blocks, streets, transit lines, connectivity, etc.
- Propose an urban design scheme for the development site that focuses on typology, architecture, sustainability, and overall design characteristics for the site.
- Propose a market-feasible development program and financial pro forma for the development site that takes into account phasing as well as a ten-year

hold. This development program will need to provide answers to the aforementioned questions the owners have posed and will need to provide market-driven assumptions and feasible sources of financing and subsidies, if any are needed.

- Identify your phasing within the development site and devise a detailed concept design for anything that you develop within the ten-year hold. The details should include building footprints, streetscapes, elevations, sections, and renderings showing the intended characteristics of your development proposal. You only need to depict details for what gets built. For pads (either improved or unimproved) that are not fully developed, you do not need to show details, but you do need to account for them visually.

Planning and Development Context

Downtown East is officially bounded by the Mississippi River to the north, 5th Street to the south, Portland Avenue to the west, and the Interstate to the east.

The competition development site is located primarily in Downtown East, but also bleeds into the more developed Downtown West and the lower density historic Elliot Park neighborhood to the south.

In 2003, the city of Minneapolis engaged in a master planning exercise for the area. The final plan put focus on creating medium density "Complete Communities," a mixed-use concept with its roots in transit-oriented-development in preparation for the opening of the Hiawatha LRT line. The importance of integrating new development with existing buildings along with the existing urban scales in the Mill District and Elliot Park was also emphasized. In 2011, the Minneapolis Downtown Council released its Downtown 2025 plan, which was developed with a stakeholder-led steering committee in conjunction with the Metropolitan Council and the city of Minneapolis. Its primary focus is on Downtown West, but it lays out ten priority initiatives, including increasing downtown's residential population, new open space, and increased transportation options;

the plan set the stage for big thinking around downtown's potential as a whole.

Despite the seeming lack of new development, most of downtown Minneapolis's current residential opportunities are actually located in Downtown East. The section of Downtown East that has seen the most activity in recent years is the Mill District which lies along the Mississippi River. In the late 1990s, the city developed a historic district master plan for the area. Since then, many of the historic mill buildings have been restored as high-end loft apartments, restaurants, offices, and museums, including the world class Guthrie Theater and the innovative Mill City Museum. Washington Avenue, the Mill District's southern boundary, is one of downtown's primary automobile corridors, and connects Downtown East to Downtown West, further west to the up-and-coming Warehouse District, and east to the Cedar-Riverside neighborhood, home to the University of Minnesota flagship campus.

Residential uses in other parts of Downtown East are geared towards lower income residents, and include homeless shelters, SRO housing, and older, unrenovated apartment buildings. Elliot Park has many multifamily buildings, senior housing and some single-family homes. Many parcels in Downtown East, and almost all of the parcels identified in the study area, are currently used as surface parking lots for downtown workers, at a cost of about \$4 per day on average. There are also a number of billboards, the approximate revenue from which will need to be taken into account when evaluating a parcel's market value and your team's proposal to create value for the property owners.

Downtown West is the home to Minneapolis's distinctive Skyway System, a series of elevated walkways that connect office buildings to one another downtown. These skyways are populated with office services, and food and retail outlets oriented toward office workers. Planning exercises for Downtown East do not call for the skyway system to be extended into this area. Nicolett Mall is one of Downtown West's most popular

retail corridors, and serves as one of the centers of the region's bus network with priority lanes and some pedestrian-only areas. As mentioned above, the region as a whole has been heavily investing in transit over the past decade. There is one light-rail stop within the study area adjacent to the stadium. It is currently served by the Hiawatha Line, which connects downtown to the Minneapolis-St. Paul airport and onward to Bloomington. In 2014, the region's second light-rail line, the Central Corridor, will open. It will also serve the Metrodome station and connect the downtowns of Minneapolis and St. Paul, along with the University of Minnesota. Many other light-rail and bus rapid transit corridors are in the planning phases.

In addition to transit investments, the city of Minneapolis is committed to bicycling as a transportation alternative. The city was ranked the number one bicycling city in the U.S. by Bikescore in 2012, and has 81 miles of on-street bikeways, and 83 miles of off-street bikeways. This commitment to biking as a mode of transportation is also reflected in the city's downtown parking requirements: there is no required automobile parking for any new downtown development, but there is a requirement for bicycle parking.

One of the challenges to redeveloping Downtown East has been a combination of the weaker real estate market in recent years coupled with the high property values in the area created by the income-producing nature of many of the parcels in question. In addition, Downtown East is surrounded by neighborhoods to the north, west, and south with very different scales and activity levels, including Elliot Park, Cedar-Riverside, March-Holmes, and Dinkytown. A successful development program for this area will need to think innovatively about infill development and value creation.

Assumptions

In addressing the needs of your clients and creating a feasible and compelling plan for both the Phase I and Phase II sites, your team must adhere to the following

assumptions.

1.
Zoning: Your entire site falls within a downtown overlay district, which means there are no vehicular parking requirements, but there are bicycle parking requirements. For Floor Area Ratio guidance, assume that each parcel is zoned as B4S-2. The minimum FAR in this district is 2.0, with a maximum of 8.0. The city allows developers to pursue Floor Area Ratio Premiums, which are designed to reward development of exceptional quality to go beyond the maximum FAR. You can obtain an FAR Premium by including special features in your plan, such as open space, a transit facility, affordable housing, street level retail, or public art. Please reference the document "Floor Area Ratio Premiums.pdf" for further detail. If you choose to pursue an FAR Premium, indicate how it was achieved in your presentation.

2.
Existing uses: Most of the parcels you will be redeveloping are currently used as surface parking lots. To evaluate how much each parcel is currently worth to its owner, you will need to know how many spaces each parcel contains and how much income they produce. For the purposes of the competition, assume that each space is 320 square feet inclusive of circulation and landscaping, that the gross revenue for each space is \$4 per day, and that, on average, each lot is 75% occupied on any given day. In addition, assume that any structure that exists on a given parcel can be retained or demolished.

3.
Billboards: As indicated on your parcel key map, there are a number of non-conforming billboards within the study area. For the purposes of the competition, assume that each billboard generates \$100,000 in annual income. You may choose to (1) keep the billboard in its current location; (2) incorporate similar advertising in some other way through your urban design; or (3) demolish the billboard and make the case that any income lost is returned through the value proposition

of your development proposal. In the case of option 3, assume that you must make a one-time payment of \$500,000 to buy the parcel's owner out of the billboard lease.

4.
Affordable housing: In exchange for assistance with the construction of the parking ramp, the city has asked that you include 100 affordable housing units in your development proposal, and that they be sized for families with children (2+ bedrooms) and affordable for low-to-moderate income households (up to 120 percent of Area Median Income).

5.
Stadium plan: You are not permitted to make modifications to the existing stadium plan. In your detailed proposal, only address those parcels/blocks specifically indicated on the Parcel Key Map. In your larger vision plan, you may indicate future development beyond your specific site, but you must assume that the stadium plan will remain as-is.

6.
Complete neighborhoods: In its thinking around the Downtown East area, the city has put priority on mixed-use and mixed-income development that respects the scale of surrounding uses, particularly in the Mill District and the Elliot Park neighborhood. Any development that fails to address these two concepts will not achieve formal entitlement approval or stakeholder buy-in. The property owners very much value being "good citizens" and want to ensure that any development they engage in will help the city, region, and surrounding neighborhoods in meeting their objectives.

7.
Rights of way and circulation patterns: You may choose to close and create public streets within your development site. If you close a public right of way and develop the space, you need to buy the land from the city at fair market value. You may also change circulation patterns.

8.
Construction costs: Use the cost tables generated by Reed Construction Data (<http://www.reedconstructiondata.com/rsmeans/models/>) to estimate your construction costs. Assume you are using union labor, and make sure to visit the "Models by State" section for each type of building to get specific estimates for Minneapolis.
9.
Utilities: You may relocate all local distribution lines for power, gas, water, and communications, at the developer's expense based on utility company standard pricing. You may not move stormwater and sewer infrastructure.
10.
Real property taxes: For the purposes of this competition, use 6% as the property tax rate for the entire development period.
11.
Inflation rate: All costs are subject to an inflation rate compounded at 3% per year.
12.
Market-feasible costs and pricing: Although we have created a fictitious scenario, you need to meet the expectations of your clients and come up with a financially feasible plan for the site. Unless we give you a cost or an assumption, you need to come up with a market-appropriate amount that you can justify in your pro forma (e.g., current sales price for land in the area, market rents for various uses, project costs, etc.). If you find that your development program needs some subsidy, the subsidy amount should be realistic and from a viable source.
13.
Demolition and remediation costs: For the purposes of this competition, use \$1.75 per square foot as the cost to demolish and remediate your parcels.
14.
Infrastructure costs: You must account for all new public infrastructure costs, but they need not be charged against project costs unless you are using said infrastructure to achieve an FAR Premium. Infrastructure on private parcels must be charged to project costs. You must determine what you think is the market appropriate rate for infrastructure costs.
15.
Parking ramp: As stated above, the city will pay for construction of a 500-space parking ramp. Your team must determine the best location and configuration for the ramp. Please refer to the regulations governing ramps for property zoned B4S-2 for further guidance.
16.
Property owners: For the purposes of the competition, we have identified the two primary property owners engaged in the partnership as "Owner 1" and "Owner 2." While it would not be difficult for you to ascertain the "real world" owner of each parcel, we ask that you use these generic identifiers to refer to them throughout your entry.
17.
Identification of parcels: To refer to a specific parcel in your competition entry, use the following convention: Letter-Number. So, if you were to refer to the parcel that has been assigned the number 3 on block F, that parcel should be identified as Parcel F-3.
18.
The Armory/Parcel L: You may choose to acquire this historic building and propose a new use for it, but you may not demolish it or alter its exterior.
19.
Start of development: Year 0 (planning, entitlements, etc.) is 2013 - 2014 and the start year, the first time you may begin construction or actual redevelopment, is 2015 (Adapted from uli.org, 2013).



Kevin Cunningham
Master of Landscape Architecture
Team Leader

Derek Hoetmer
Master of Landscape Architecture
Lead Designer



Kylie Harper
Master of Landscape Architecture
Graphic Guru





Lauren Brown
Master of Architecture
Lead Architect

TEAM 1155



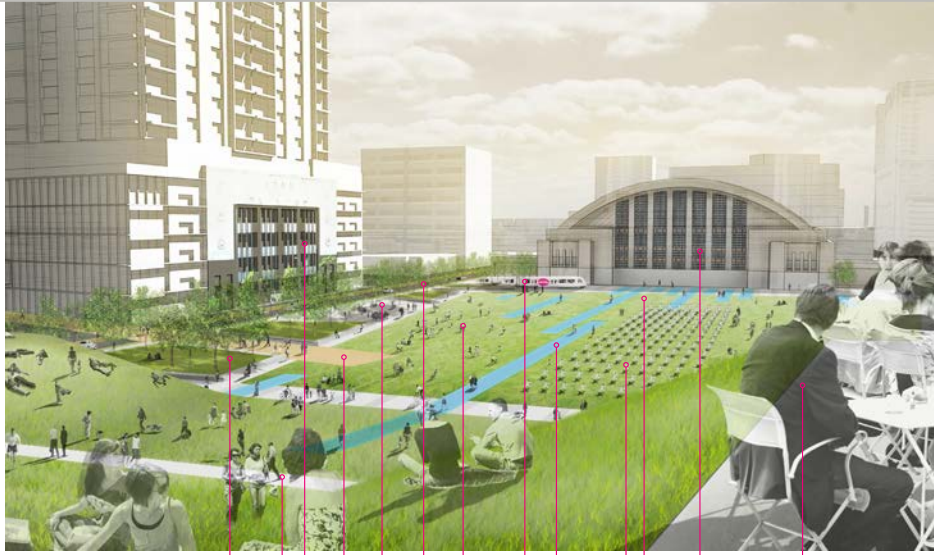
Tyler Knott
Master of Business Administration
Development + Financial Specialist

In the fall of 2012, Team 1155 - Knights of the Round Table began with Kevin and I recruiting another landscape architecture student from Kansas State, Kylie Harper. Following this, we reached out to the real estate department at the University of Missouri Kansas City. Walt Clements, director of the Lewis White Real Estate Center, provided candidates for the real estate business student needed for the team. Tyler Knott, Master of Business Administration, was chosen for the job. Lastly, our academic advisor, Dr. Jason Brody sought out through his connections an architecture student. Genevieve Baudoin, professor of architecture at the University of Kansas, provided the fifth member of Team 1155, Master of Architecture student, Lauren Brown. Lauren would represent the third different discipline needed to compete.

Once approved by the ULI, Team 1155 spent the weeks before the competition preparing and planning for the fifteen day event.

THE ARMOBY

RESILIENT MINNEAPOLIS BY DESIGN



AN AFTERNOON AT THE ARMORY

- Armory Rowland Library
- Connection to Skyway
- Proposed Skyway Threshold
- Portland Avenue to Skyway
- Christie School, New Park
- Portland Ave.
- Day Care access
- LRT Line
- Skyway to parking ramp
- TU, CU on the lawn
- Flexible civic lawn
- The Armory
- Lunches on the lawn



CONCEPTUAL FRAMEWORK

- Future Light Rail System
- Future Streetcar System
- Portland Avenue Terminus
- Armory District Threshold
- Armory Elementary School
- Riverside Park
- Densely Ellet Park



VEHICULAR + TRANSIT CIRCULATION

- Existing Bike Routes
- Future Bike Routes
- Existing Skyway
- Proposed Skyway Connections
- Proposed Bicycle Boulevards
- Future Bike Share Locations

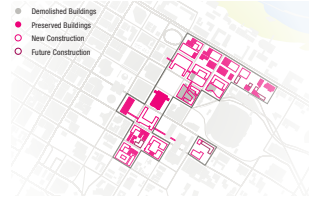
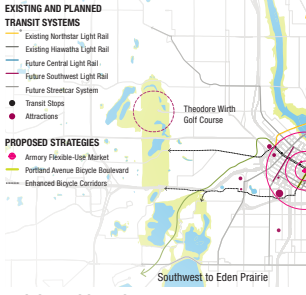


FIGURE GROUND

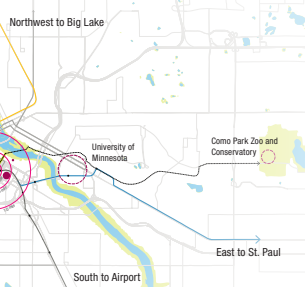
- Mixed Use/Residential
- Residential
- Retail
- Medical/Office/Office
- Hotel
- Parking Ramp

VISION PLAN - AN ADAPTIVE FUTURE

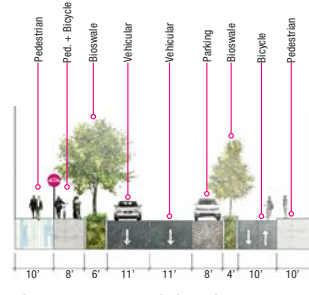


REGIONAL CONNECTIVITY

PEDESTRIAN + BICYCLE CIRCULATION



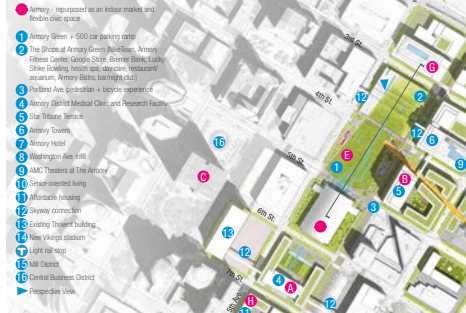
LAND USE



PORTLAND AVENUE BICYCLE BOULEVARD

THE ARMORY

A LANDMARK COMMUNITY FOR



- Armory - reimagined as an indoor market and flexible civic space
- 1 Armory Green - 500 car parking ramp
- 2 The Shops at Armory Green (Retail, Armory National Center, Google Shop, Grocery Store, Library, Child Care, Fitness, Day Care, Restaurant, Aquarium, Armory (Bldg), Art (Bldg), CU)
- 3 Children Ave. pedestrian - high-capacity experience
- 4 Armory District Medical Clinic and Research Facility
- 5 Star Tribune Terrace
- 6 Armory Towers
- 7 Armory Hotel
- 8 Washington Ave. rail
- 9 AMC Theaters at the Armory
- 10 Single-oriented living
- 11 Affordable housing
- 12 Skyway connection
- 13 Existing Transit building
- 14 New Vikings stadium
- 15 Light Rail stop
- 16 Mill Creek
- 17 Central Business District
- ▶ Perspective View

0 250 500 1,000



4 Dusty
An avid cyclist and graduate student at the University of Minnesota, Dusty lives in Croftwood and works at the Armory District Medical Clinic (he helps sharing lunch at the Armory, the cause of his daily commute, and supporting his favorite language, the Catalan).

8 Bruce + Sara
Bruce and Sara recently purchased a condo at Armory Towers. They frequently use a bicycle of wine and overlook the park from their balcony. Bruce is a director of technology at Target, while Sara is an active volunteer in the community.

6 Amoon
A single mom, Amoon has worked for years at Armory Towers. She commutes from the studio with her daughter who attends nearby Du La Salle High School. Amoon often picks up a few things for dinner at the Armory on her way home.

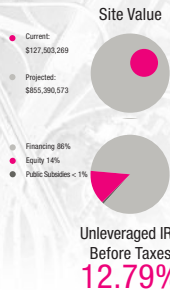
1 Don + Ashley
Don decided to move to independent living off of Portland Ave. to be close to his son for the performing arts visual arts. This weekend he is going to St. Paul via light rail to visit his grandparents, and spend the evening at the Armory.



VIKING VICTORY MARCH TO ARMORY GREEN

ARMORY

AN ADAPTIVE URBAN LIFESTYLE



Jason + Wendy

Jason and Wendy came into town for the Vikings vs. Packers game. While hanging at Armory Green, Wendy was surprised by the energy of retail nearby. She contacted Jason to see if he could help her find a new location for their business.



Dave + Michael

Dave works via Slingshot in his job at a marketing firm downtown and Michael comes by for a call for a live firm in Bloomington. They both enjoy the energy of retail nearby. She contacted Michael to see if he could help her find a new location for their business.



Cai

Cai lives in a studio apartment in the Armory District where she works ready as a bartender and is finishing her degree at Minnesota Community College. Most weekends she works at the Armory District's new restaurant and coffee shop.



Elijah

Elijah is a recent graduate from culinary training courses at the nearby Catholic Charities Center after looking for a way out of homelessness. He now works at an Armory District restaurant that provides a path to food justice.



AN ICONIC GREEN FOR DOWNTOWN MINNEAPOLIS



PHASE ONE - 2015 Total: 1,729,849 SF



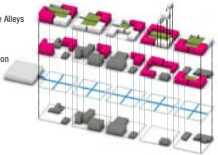
PHASE TWO - 2017 Total: 1,999,494 SF



PHASE THREE - 2021 Total: 714,793 SF

Infill Strategies

- Internalized Parking
- Pedestrian + Service Alleys
- Wind Relief
- Variable Facades
- Cellular Parcel Division

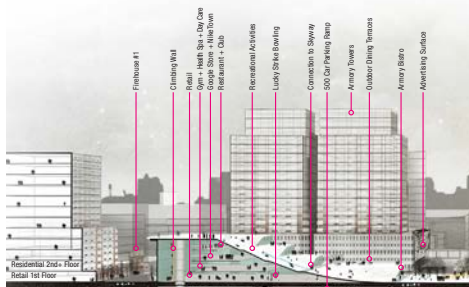


Sustainable Strategies

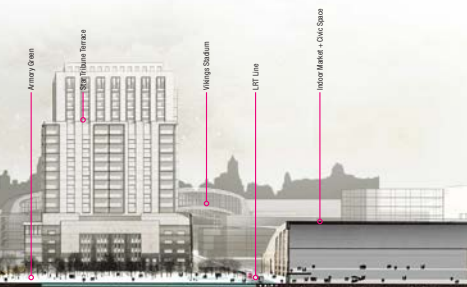
- Daylighting
- Green Roof Terraces
- Electric Car Charging Stations
- Grey Water Storage
- Solar Energy Collection



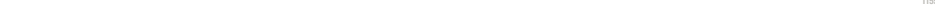
WASHINGTON AVENUE INFILL STRATEGY



MIXED-USE BUILDING TYPOLOGY

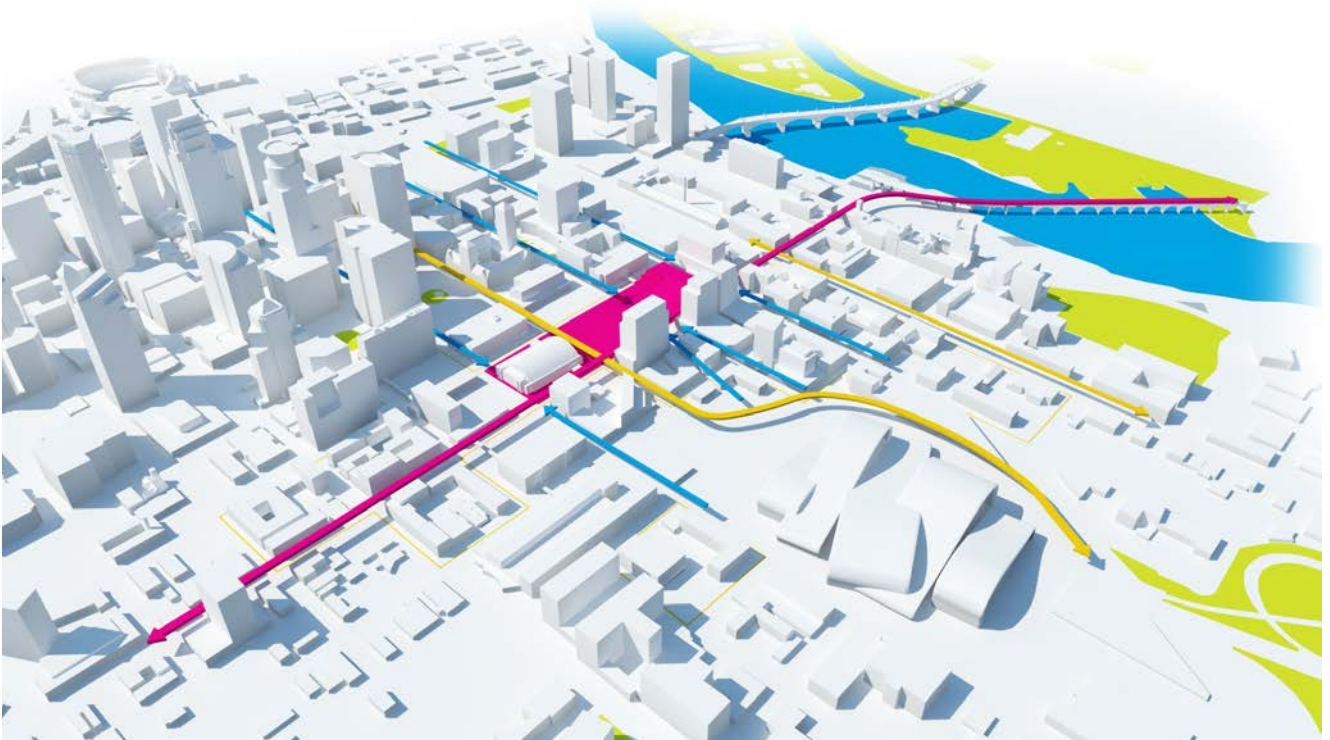


WINTER ACTIVITIES AT ARMORY GREEN



Above Figure 5.8 The Armory - Phase I Board

CONCEPTUAL FRAMEWORK



LARGER IMPACT

The vision for The Armory is the nexus of the central business district to the west, the Mill District to the north, the Vikings Stadium to the east, and Elliot Park to the south, see Figure 5.9. The Armory acts as the heart in the proposal in which the development focuses. Creating and enhancing connections to the larger region, the proposal seeks to build off of what Minneapolis achieves in terms of their successful parks system, transit network, and bikeability, see Figure 5.10.

EXISTING AND PLANNED TRANSIT SYSTEMS

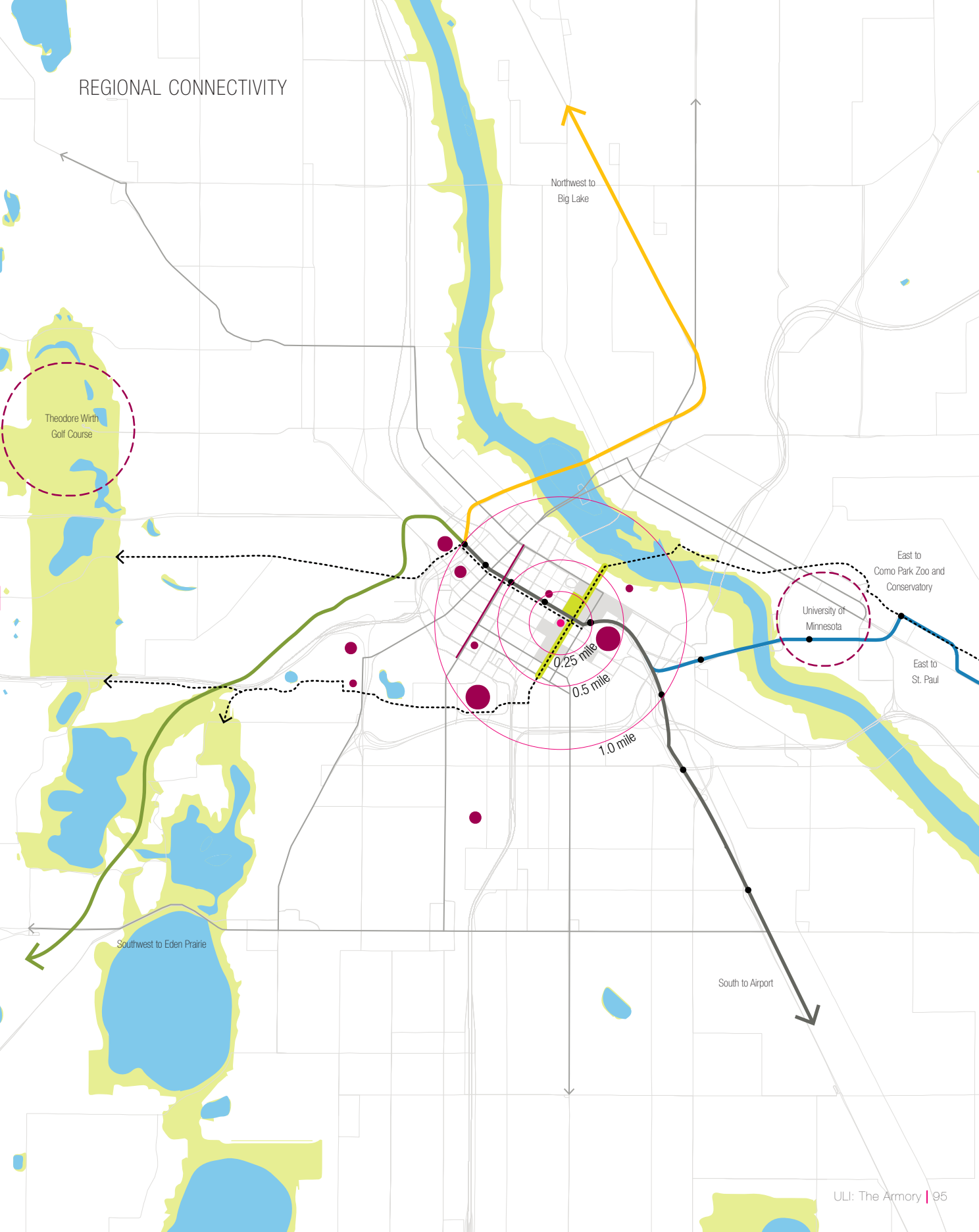
- Existing Northstar Light Rail —
- Existing Hiawatha Light Rail —
- Future Central Light Rail —
- Future Southwest Light Rail —
- Future Streetcar System —
- Transit Stops ●
- Attractions ●

PROPOSED STRATEGIES

- Armory Flexible-Use Market ●
- Portland Avenue Bicycle Boulevard —
- Enhanced Bicycle Corridors —

Above Figure 5.9 The Armory - Conceptual Framework
 Right Figure 5.10 The Armory - Regional Connectivity
 Following Figure 5.11 Viking Victory March to Armory Green

REGIONAL CONNECTIVITY



Northwest to
Big Lake

Theodore Wirth
Golf Course

East to
Como Park Zoo and
Conservatory

University of
Minnesota

East to
St. Paul

0.25 mile

0.5 mile

1.0 mile

Southwest to Eden Prairie

South to Airport





97
THEATRES

September 11, 2017 News: Vikings pummel Packers for championship

THE ARMORY

The Armory is an iconic urban development that creates a strong identity for Minneapolitans in the 21st Century. Currently, Minneapolis looks to establish itself as a world-class cosmopolitan community. The city is approaching a threshold of becoming a model for how a mid-size urban region can function in response to dynamic change. The Armory is a development that provides the means to absorb predicted growth in density through an iconic approach.

The Armory (Figure 5.12) is a vision for a district that effectively connects the components that make Minneapolis a successful city: parks, bicycling, a unique architectural vernacular, culture, and a strong work ethic. Portland Avenue serves as the spine for this connection, linking pedestrians to local and regional destinations via: the LRT network, a future downtown street car loop, skyways, and the first livable, pedestrian-oriented district in the Downtown area. The existing Armory building will be repurposed as a flexible civic meeting space and an indoor market. The Armory reinforces the rich history of the city's past, becoming a dynamic focal point for a new district.



SITE PROGRAM

- 1 Armory-repurposed as an indoor market and flexible civic space
- 2 Armory Green + 500 car parking ramp
- 3 The Shops at Armory Green (NikeTown, Armory Fitness Center, Google Store, Bremer Park, Lucky Strike Bowling, health spa, day care, restaurant/aquarium, Armory Bistro, bar/night club)
- 4 Portland Ave. pedestrian + bicycle experience
- 5 Armory District Medical Clinic and Research Facility
- 6 Star Tribune Terrace
- 7 Armory Towers
- 8 Armory Hotel
- 9 Washington Ave. infill
- 10 AMC Theaters at The Armory
- 11 Senior-oriented living
- 12 Affordable housing
- 13 Skyway connection
- 14 Existing Thrivent building
- 15 New Vikings stadium
- 16 Light rail stop
- 17 Mill District
- 18 Central Business District

Right Figure 5.12 The Armory - Masterplan



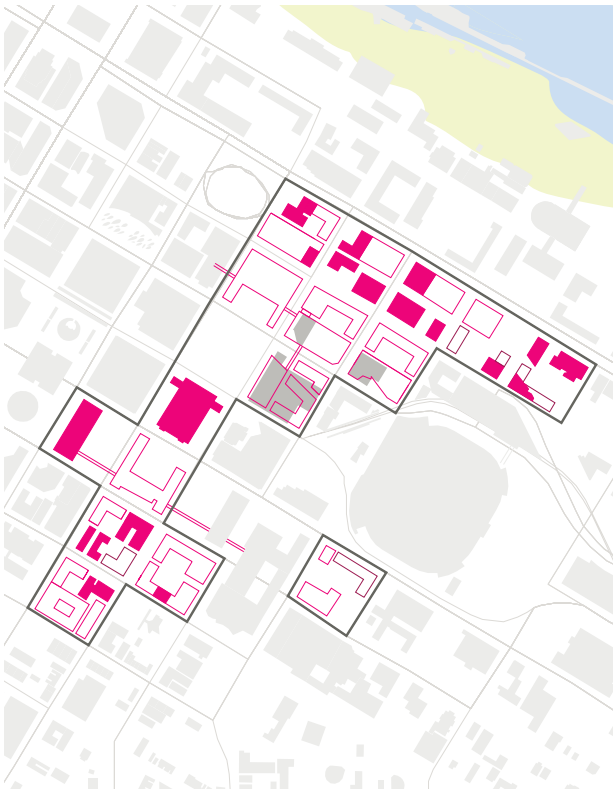
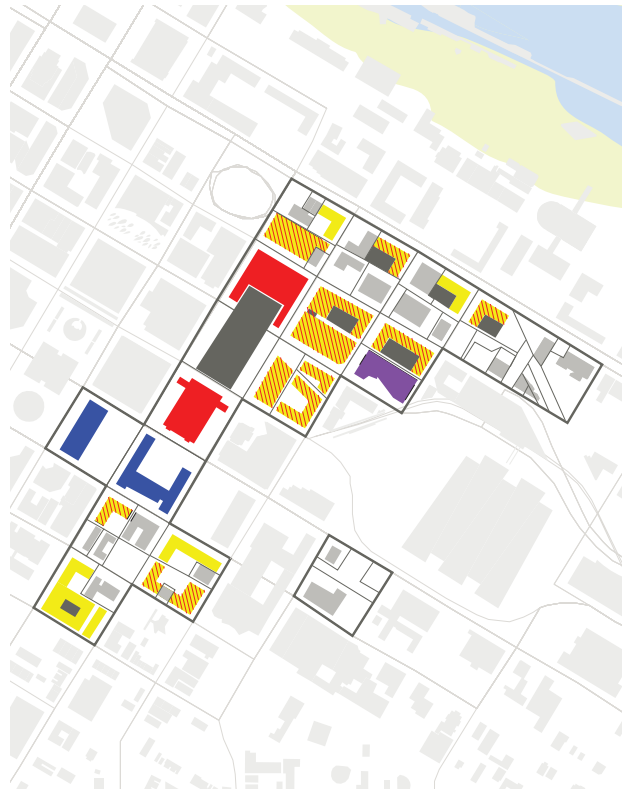


FIGURE GROUND

- Demolished Buildings
- Preserved Buildings
- New Construction
- Future Construction

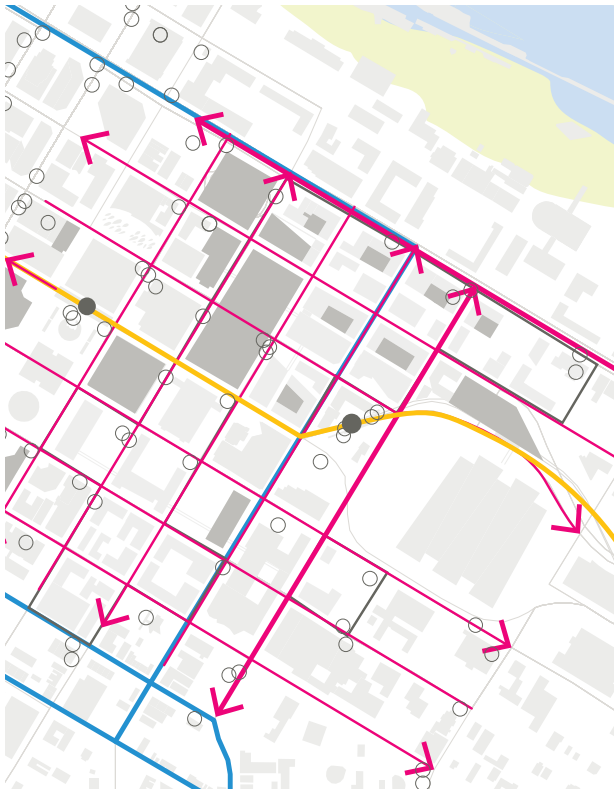
The development builds on particular relics within the site such as the historic Armory structure and the Star Tribune facade. Infill throughout the site creates a strong street edge while providing new urban voids that create a new open space network.



LAND USE

- Mixed Use Residential
- Residential
- Retail
- Hotel
- Parking Ramp

Revolving around the centerpiece, Armory Green, symbiotic retail is concentrated on the core of the development as diverse residential components radiate outward.



VEHICULAR + TRANSIT CIRCULATION

- Light Rail System
- Future Streetcar System
- ◀ One-way Street
- Proposed Parking Ramps
- Transit Stops
- Bus Stops

By the closure of 4th and 5th street between 5th avenue and Portland Avenue, the site promotes pedestrian focused permeability with emphasis on public transit.

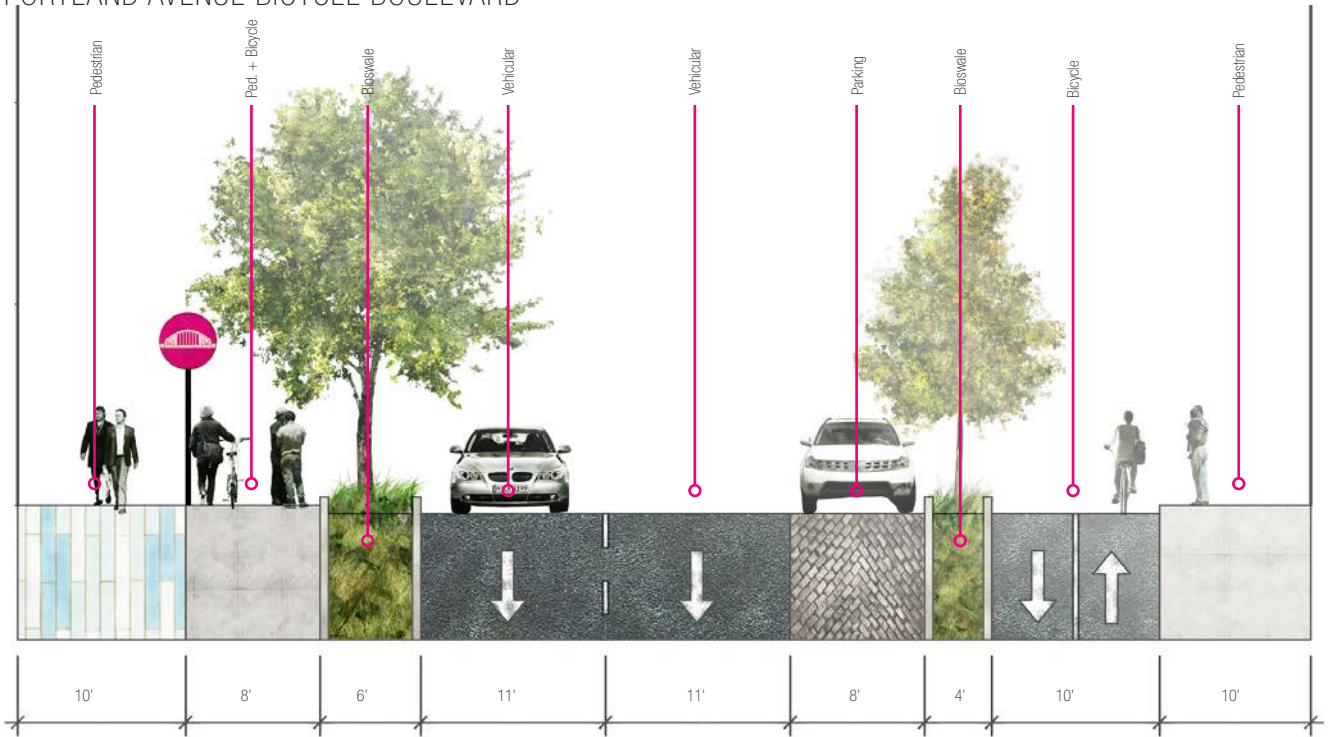


PEDESTRIAN + BICYCLE CIRCULATION

- Existing Bike Routes
- - - Future Bike Routes
- Existing Skyway
- - - Proposed Skyway Connections
- Proposed Bicycle Boulevard
- Future Bike Share Locations

Through the design of Armory Green, the Skyway system is integrated to create a new retail + recreation experience unknown to the Minneapolis region. Portland Avenue provides the pedestrian and bicycle spine to unite the north and south of the development.

PORTLAND AVENUE BICYCLE BOULEVARD



SUSTAINABLE TACTICS

New sustainable strategies are employed everywhere, but what is more relevant is being contextually sensitive - Minneapolis is no exception. After extensive research, it was revealed that the employed sustainable tactics are the most successful for the region. The proposal provides a concise look on how strategies are implemented within different typologies: streets, buildings, and block.

Portland Avenue Bicycle Boulevard (Figure 5.14) acts as the pedestrian spine that unites the north and south of the site. While keeping the street one-way vehicular, a two-way bicycle highway was integrated within the typology on the east side that is protected by bioswale medians. Equipped with on-street parking with permeable paving, Portland Avenue also possesses a shared bike and pedestrian experience along the west side adjacent to the Armory and Armory Green.

A contextual building typology is adapted from the Mill District with internalized parking and outward facing

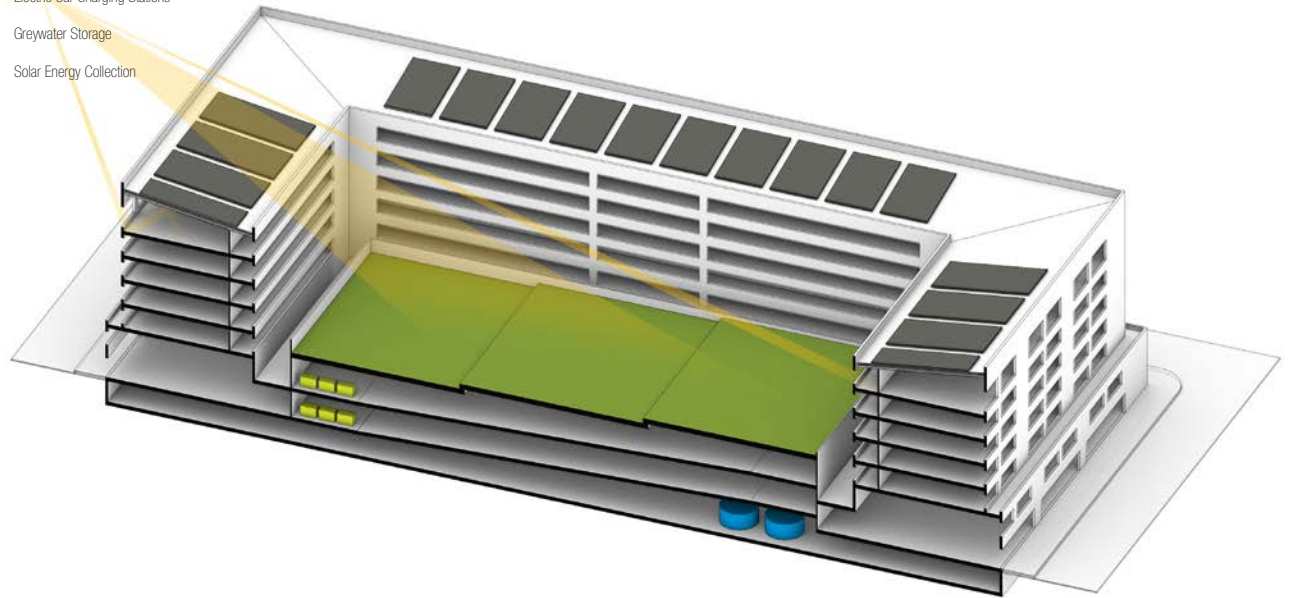
residential units (Figure 5.15). Building from this typology, solar orientation, green infrastructure, and ground floor retail are components that were added to round out a more sustainable building model for the development. This typology can be adapted and modified to fit different situations which can be seen throughout the site development plan.

Along Washington Avenue is a unique opportunity to piecemeal a block strategy that informs future development that works with the existing non-developable building parcels. The Armory infill strategies (Figure 5.16) works to densify along the important Washington Avenue arterial road while providing pedestrian alleyways and new interstitial open spaces. On the top level of the diagram can be seen the desirable end result with a new block organization the internalizes parking and produces a strong edge for the development.

Above Figure 5.14 Portland Avenue Bicycle Boulevard
 Top Right Figure 5.15 Mixed-Use Building Typology
 Bottom Right Figure 5.16 Washington Avenue Infill Strategy
 Following Figure 5.17 An Afternoon At The Armory

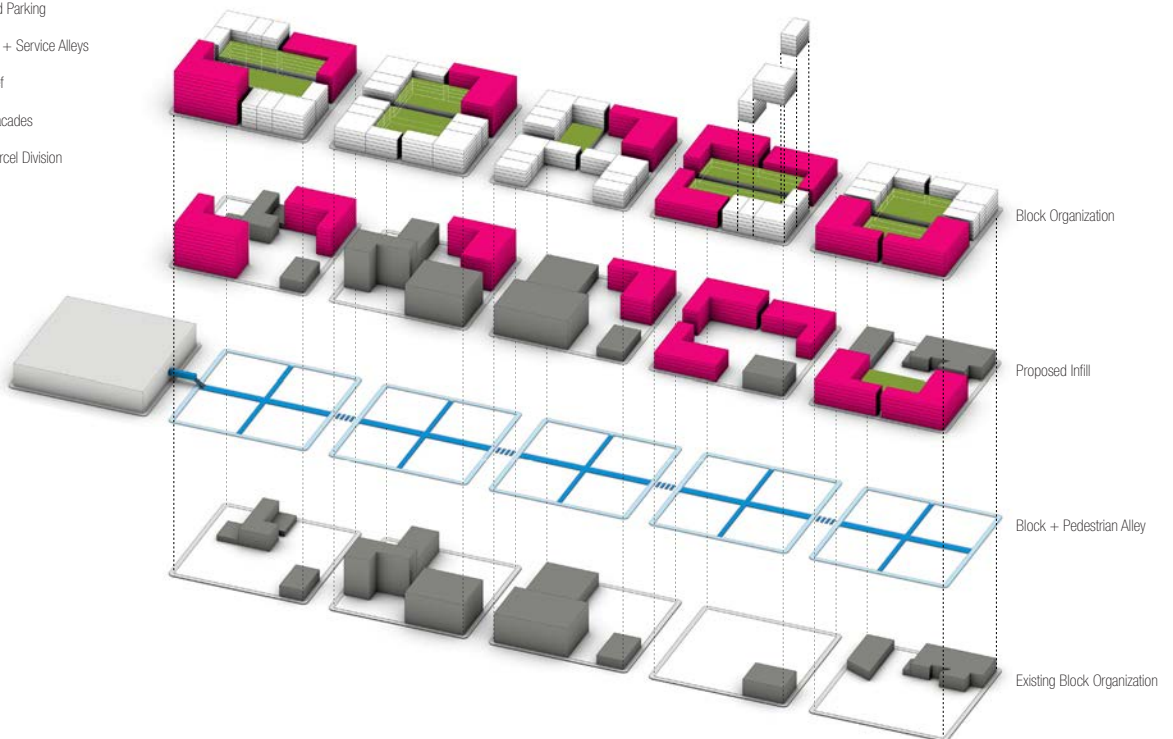
MIXED-USE BUILDING TYPOLOGY

- Daylighting
- Green Roof Terraces
- Electric Car Charging Stations
- Greywater Storage
- Solar Energy Collection

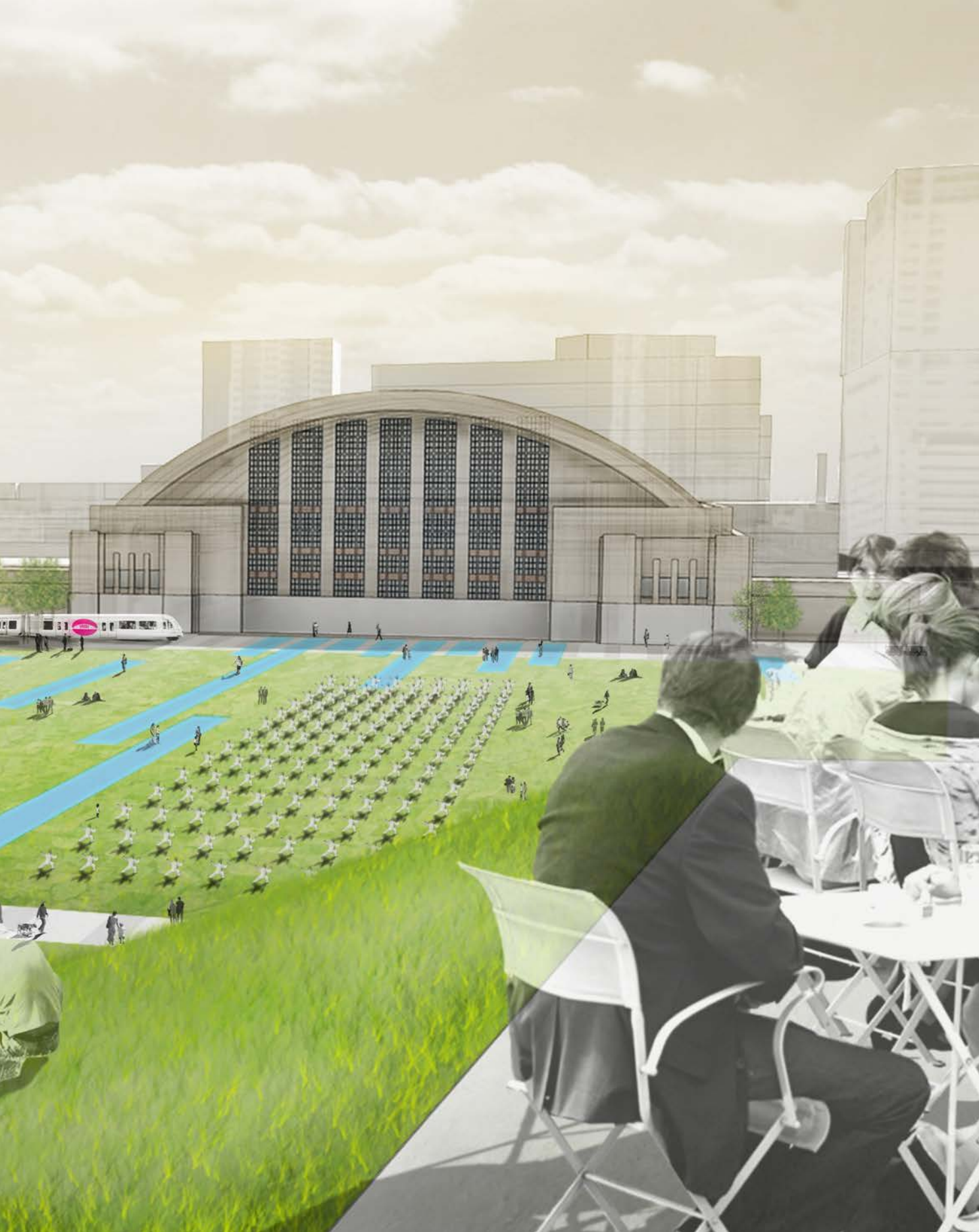


WASHINGTON AVENUE INFILL STRATEGY

- Internalized Parking
- Pedestrian + Service Alleys
- Wind Relief
- Variable Facades
- Cellular Parcel Division



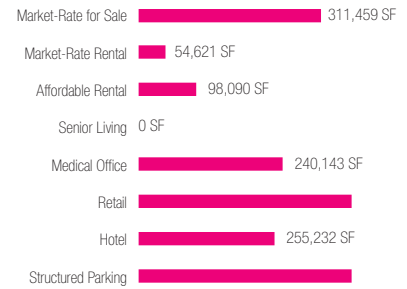




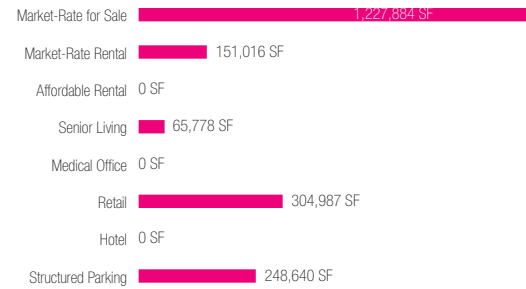
STRATEGIC PHASING



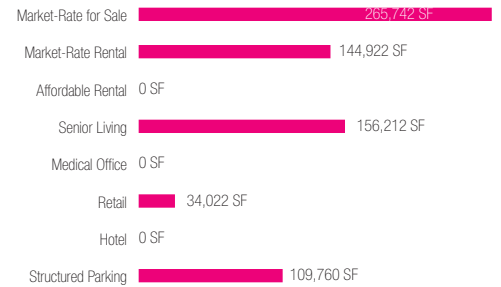
PHASE ONE - 2015 TOTAL: 1,729,849 SF



PHASE TWO - 2017 TOTAL: 1,999,494 SF



PHASE THREE - 2021 TOTAL: 714,793 SF



Left Figure 5.18 The Armory - Phasing Strategies P1
Right Figure 5.19 The Armory - Financial Diagram P1

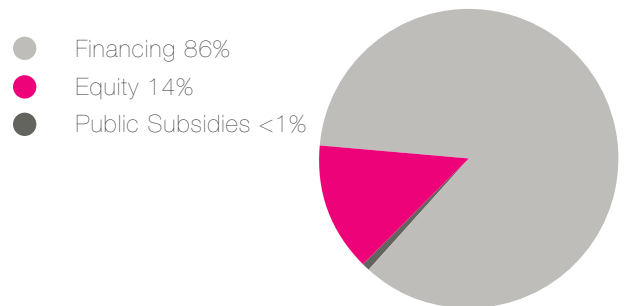
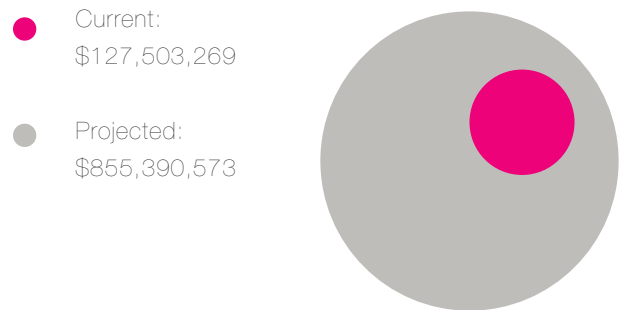
Development of The Armory begins with the formation of a real estate development partnership capitalized by the owners' parcel contributions. The owner's initial capital contribution of land to the partnership along with a complete financial pro forma, detailed design, and appropriate bonding and insurance provide the security needed to obtain financing. This financing will come in the form of a construction loan followed by a take-out permanent loan for all three phases of construction. Public incentives provide additional capital as well as foster mutual interest for a successful development. These incentives give the owners the ability to create a downtown urban park from two valuable parcels. This increases value for both Minneapolis and the owners by creating an iconic landmark to serve the community.

The percentage ownership of the development partnership corresponds to the value of each owner's parcel contribution. These parcels form the equity basis of the construction and permanent loans. The lender assesses development feasibility, financial strength, borrower character, repayment ability, and security in the form of appropriate liens, possible individual guarantees, insurance, and bonding. The pro forma indicates that the development has a large return on capital, healthy debt coverage and an appropriate loan to value.

The construction loan is calculated on a term of one year at a rate of 200bp over prime and one point fee. The loan balance increases as construction draws are presented to the lender. Upon Phase I completion, the lender refinances the balance into a nine year balloon loan with a 30 year amortization. The Phase I initial debt service payment and fee is paid from income generated in 2013 and 2014. Thereafter, the development's revenues provide robust debt coverage. At the maximum, LTV comes in around 73%. Each of the following phases use the same method of construction loan to permanent loan financing with increasing strength in coverage and collateral. Additionally, the permanent financing of all phases has a balloon payment scheduled in year 2024 for valuation purposes.

Minneapolis has committed public funds to building a 500 space parking ramp in Phase I. The city then operates the ramp for a ten year period, collecting revenue from 400 spaces and lease revenue for 100 spaces from the development entity. In year 10, title to the parking ramp reverts to the development entity. An assumption was made that federal funds would be generated through the Federal Historic Preservation Tax Incentive Program and the Low Income Housing Tax Credit Program. A TIF PAYGO note is possible. However, based on the pro forma's strong expected return for the owners, the "but for" condition is unlikely to be met (Team 1155, 2013).

SITE VALUE



UNLEVERAGED IRR BEFORE TAXES

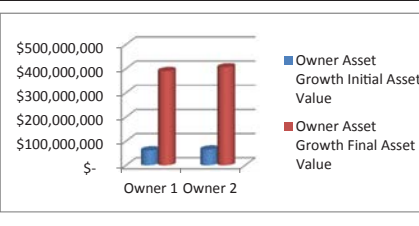
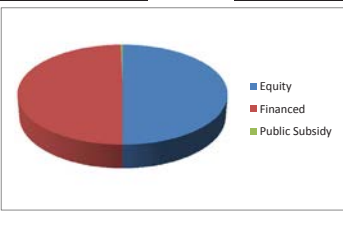
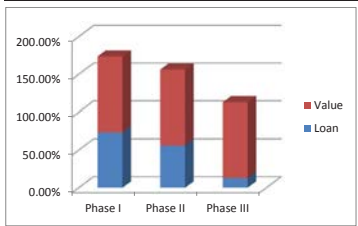
12.79%

1. Summary Pro Forma											Team: 1155	
Net Operating Income	Year 0	Phase I			Phase II			Phase III			2024	
	2013-2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
Market-rate	Rental Housing	\$ -	\$ -	\$ 682,939	\$ 844,113	\$ 3,546,023	\$ 3,277,798	\$ 3,569,054	\$ 3,902,654	\$ 6,852,628	\$ 7,058,207	\$ 7,269,953
	For-Sale Housing	\$ -	\$ -	\$ 31,575,589	\$ 38,592,386	\$ 76,840,981	\$ 138,313,765	\$ 92,209,177	\$ -	\$ 22,601,357	\$ 27,623,881	\$ -
Affordable	Rental Housing	\$ -	\$ -	\$ 682,939	\$ 844,113	\$ 3,546,023	\$ 3,277,798	\$ 3,569,054	\$ 3,902,654	\$ 6,852,628	\$ 7,058,207	\$ 7,269,953
	Office/Commercial	\$ 13,032,560	\$ 6,516,280	\$ -	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543
	Medical Office	\$ -	\$ -	\$ 4,839,440	\$ 5,032,144	\$ 5,224,848	\$ 5,417,552	\$ 5,610,257	\$ 5,802,961	\$ 5,995,665	\$ 6,188,369	\$ 6,381,074
	Market-rate Retail	\$ -	\$ -	\$ 6,547,329	\$ 6,779,392	\$ 12,468,578	\$ 12,905,259	\$ 13,354,668	\$ 13,817,179	\$ 14,990,142	\$ 15,503,897	\$ 16,032,628
	Hotel	\$ -	\$ -	\$ 11,795,828	\$ 15,187,129	\$ 15,642,743	\$ 16,112,025	\$ 16,595,386	\$ 17,093,248	\$ 17,606,045	\$ 18,134,226	\$ 18,678,253
	Structured Parking	\$ -	\$ -	\$ 2,967,605	\$ 3,065,634	\$ 6,298,638	\$ 6,496,597	\$ 6,700,495	\$ 6,910,510	\$ 6,882,965	\$ 8,952,454	\$ 9,230,027
	Surface Parking	\$ 720,479	\$ 1,553,006	\$ 1,553,006	\$ 988,674	\$ 988,674	\$ 988,674	\$ 988,674	\$ 988,674	\$ 117,642	\$ 117,642	\$ 117,642
	Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Net Operating Income		\$ 13,753,039	\$ 8,069,286	\$ 67,160,956	\$ 75,084,128	\$ 128,307,050	\$ 190,540,011	\$ 146,347,307	\$ 55,357,390	\$ 87,509,615	\$ 94,447,426	\$ 68,790,073
Development Costs												
Market-rate	Rental Housing	\$ -	\$ 10,623,785	\$ -	\$ 29,372,612	\$ -	\$ -	\$ -	\$ 28,187,329	\$ -	\$ -	\$ -
	For-Sale Housing	\$ -	\$ 61,279,558	\$ -	\$ 241,586,177	\$ -	\$ -	\$ -	\$ 52,284,738	\$ -	\$ -	\$ -
Affordable	Rental Housing	\$ -	\$ 14,947,935	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Office/Commercial	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Medical Office	\$ -	\$ 41,304,596	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Retail	\$ -	\$ 55,452,205	\$ -	\$ 43,064,164	\$ -	\$ -	\$ -	\$ 4,803,906	\$ -	\$ -	\$ -
	Hotel	\$ -	\$ 62,531,840	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Structured Parking	\$ -	\$ 26,208,000	\$ -	\$ 16,161,600	\$ -	\$ -	\$ -	\$ 7,134,400	\$ -	\$ -	\$ -
	Surface Parking	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Demo & Remediation	\$ -	\$ 1,173,401	\$ -	\$ 520,077	\$ -	\$ -	\$ -	\$ 240,869	\$ -	\$ -	\$ -
	Land Acquisition	\$ -	\$ 23,853,420	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Infrastructure	\$ -	\$ 12,365,711	\$ (300,000)	\$ 10,339,437	\$ -	\$ -	\$ -	\$ 3,874,636	\$ -	\$ -	\$ -
	Developer Fees	5%	\$ 15,487,023	\$ (15,000)	\$ 17,052,203	\$ -	\$ -	\$ -	\$ 4,826,294	\$ -	\$ -	\$ -
	Total Development Costs		\$ 325,227,474	\$ (315,000)	\$ 358,096,271	\$ -	\$ -	\$ -	\$ 101,352,172	\$ -	\$ -	\$ -
Annual Cash Flow												
	Net Operating Income	\$ 13,753,039	\$ 8,069,286	\$ 67,160,956	\$ 75,084,128	\$ 128,307,050	\$ 190,540,011	\$ 146,347,307	\$ 55,357,390	\$ 87,509,615	\$ 94,447,426	\$ 68,790,073
	Total Asset Value	\$ -	\$ 83,542,050	\$ 441,559,111	\$ 452,750,411	\$ 637,775,369	\$ 649,335,726	\$ 672,241,147	\$ 696,341,005	\$ 794,619,501	\$ 817,854,178	\$ 855,390,573
	Total Costs of Sale	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Development Costs	\$ -	\$ 325,227,474	\$ (315,000)	\$ 358,096,271	\$ -	\$ -	\$ -	\$ 101,352,172	\$ -	\$ -	\$ -
	Net Cash Flow	\$ (113,750,230)	\$ (317,158,188)	\$ 67,475,956	\$ (283,012,143)	\$ 128,307,050	\$ 190,540,011	\$ 146,347,307	\$ (45,994,783)	\$ 87,509,615	\$ 94,447,426	\$ 795,460,115
Value of Initial Land												
	Contribution	\$ (127,503,269)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service												
	Total Const. Loan Pmts	\$ (20,326,717)	\$ -	\$ (22,604,827)	\$ -	\$ -	\$ -	\$ -	\$ (6,397,856)	\$ -	\$ -	\$ -
	Permanent Loan Pmts	\$ -	\$ (20,358,485)	\$ (20,358,485)	\$ (42,998,641)	\$ (42,998,641)	\$ (42,998,641)	\$ (42,998,641)	\$ (42,998,641)	\$ (49,406,496)	\$ (49,406,496)	\$ (733,457,520)
	Loan Proceeds	\$ 325,227,474	\$ -	\$ 361,677,234	\$ -	\$ -	\$ -	\$ -	\$ 102,365,694	\$ -	\$ -	\$ -
	Leveraged Net Cash Flow	\$ (113,750,230)	\$ (12,267,431)	\$ 47,117,471	\$ 35,701,778	\$ 85,308,409	\$ 147,541,370	\$ 103,348,666	\$ 6,974,414	\$ 38,103,119	\$ 45,040,930	\$ 62,002,595
	Net Present Value	\$ 23,938,371	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Leveraged Net Present Value	\$ 445,131,091	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Loan to Value Ratio (LTV)	73.65%	0	56.15%	0	0	12.75%	0	0	0	0	79.97%
	Unleveraged IRR Before Taxes	12.79%	-	-	-	-	-	-	-	-	-	-
	Leveraged IRR Before Taxes	35.9%	-	-	-	-	-	-	-	-	-	-
	Debt Coverage	1.07	3.30	1.75	2.98	4.43	3.40	1.12	1.77	1.91	1.39	-

2. Multiyear Development Program												
Project Buildout by Development Units	Total Buildout	Year-by-Year Cumulative Absorption										
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Market-rate	Rental Housing (units)	55	55	206	206	206	206	206	206	206	351	351
	For-Sale Housing (units)	234	234	1,257	1,257	1,257	1,257	1,257	1,257	1,456	1,456	1,456
Affordable	Rental Housing (units)	110	110	110	110	110	110	110	110	110	110	110
	Senior Independent Living (units)	-	-	-	-	-	-	-	-	-	-	-
	Hotel (rooms)	575	719	719	719	719	719	719	719	719	719	719
	Structured Parking (spaces)	860	860	1,637	1,637	1,637	1,637	1,637	1,637	1,980	1,980	1,980
	Other	-	-	-	-	-	-	-	-	-	-	-
Project Buildout by Area												
Market-rate	Rental Housing (s.f.)	54,621	54,621	205,637	205,637	205,637	205,637	205,637	205,637	350,559	350,559	350,559
	For-Sale Housing (s.f.)	280,313	280,313	1,508,197	1,508,197	1,508,197	1,508,197	1,508,197	1,508,197	1,747,365	1,747,365	1,747,365
Affordable	Rental Housing (s.f.)	98,090	98,090	98,090	98,090	98,090	98,090	98,090	98,090	98,090	98,090	98,090
	Office/Commercial (s.f.)	762,138	762,138	762,138	438,660	438,660	438,660	438,660	438,660	438,660	438,660	438,660
	Medical Office (s.f.)	240,143	240,143	240,143	240,143	240,143	240,143	240,143	240,143	240,143	240,143	240,143
	Market-rate Retail (s.f.)	392,721	392,721	392,721	697,708	697,708	697,708	697,708	697,708	731,730	731,730	731,730
	Hotel (s.f.)	255,232	255,232	255,232	255,232	255,232	255,232	255,232	255,232	255,232	255,232	255,232
	Structured Parking (s.f.)	403,200	403,200	403,200	651,840	651,840	651,840	651,840	651,840	761,600	761,600	761,600
	Total	762,138	762,138	2,486,458	2,162,980	4,095,507	4,095,507	4,095,507	4,095,507	4,095,507	4,623,379	4,623,379

3. Unit Development and Infrastructure Costs		
Development Costs	Unit Cost	Total Cost
Market-rate	Rental Housing (\$ per unit)	\$ 170,550
	For-Sale Housing (\$ per unit)	\$ 230,100
	Senior Independent Living (\$ per unit)	\$ 170,550
Affordable	Rental Housing (\$ per unit)	\$ 17,912
	Medical Office (\$ per s.f.)	\$ 167
	Retail (\$ per s.f.)	\$ 136
	Hotel (\$ per room)	\$ 88,750
	Structured Parking (\$ per space)	\$ 19,200
	Total	\$ 718,350,076.35
Infrastructure Costs		
	Public	Private
Minneapolis Infrastructure Subsidy	\$ 600,000	\$ -
Skywalks	\$ -	\$ 2,007,706
Park/Landscaping/Sod	\$ -	\$ 3,652,173
Trees	\$ -	\$ 7,710
	Total Infrastructure Costs	\$ 5,067,589
	Demo, Acquisition, Fees	\$ 63,138,287
	Total Development Costs	\$ 786,555,953

4. Equity and Financing Sources				
Initial Equity Sources (total)	Initial	Amount		Percent of Total
		End		
	49% Equity - Owner 1	\$ 61,903,630	\$ 389,775,456	24.51%
	51% Equity - Owner 2	\$ 65,599,639	\$ 405,684,659	25.51%
	Total Equity	\$ 127,503,269	\$ 795,460,115	50.0%
Financing Sources (total)				
	Phase I: Construction Loan	\$ -	\$ 325,227,474	-
	Phase I: Long Term Financing	\$ -	\$ 325,227,474	20.45%
	Phase II: Construction Loan	\$ -	\$ 361,677,234	-
	Phase II: Long Term Financing	\$ -	\$ 361,677,234	22.74%
	Phase III: Construction Loan	\$ -	\$ 102,365,694	-
	Phase III: Long Term Financing	\$ -	\$ 102,365,694	6.44%
	Total Financing	\$ -	\$ 789,270,402	49.63%
Public Subsidies				
Minneapolis Infrastructure Subsidy b	\$ -	\$ 600,000	\$ -	0.04%
Possible Subsidies (Tax Credits)				
	LIHTC	\$ -	\$ 1,229,117	0.08%
	Federal Historic Preservation Tax Incentive Program	\$ -	\$ 3,591,536	0.23%
	Minneapolis "PAYGO" TIF	\$ -	\$ -	Unlikely based on projections
	Phase I LTV	73.65%	Phase II LTV	56.15%
	Phase III LTV	12.75%		



IT'S ABOUT THE PEOPLE...

These character profiles (Figure 5.21) were created from demographic research to display the target audience the proposal seeks to cater to.



A

DUSTY

An avid cyclist and graduate student at the University of Minnesota, Dusty lives in Dinkytown and works at the Armory District Medical Clinic. He enjoys having lunch at the Armory, the ease of his daily commute, and proximity to his favorite biergarten, the Gjallarhorn.



B

BRUCE + SARA

Bruce and Sara recently purchased a condo at Armory Towers. They frequently buy a bottle of wine and overlook the park from their balcony. Bruce is a director of technology at Target, while Sara is an active volunteer in the community.



C

AMOON

A single mom, Amoon has worked for years at City Hall. She commutes from the suburbs with her daughter who attends nearby De La Salle High School. Amoon often picks up a few things for dinner at the Armory on her way home.



D

DON + ASHLEY

Don decided to move to independent living off of Portland Ave. to be closer to his love for the performing and visual arts. This weekend he is going to St. Paul via light rail to visit his granddaughter and attend her piano recital.



E

JASON + WENDY

Jason and Wendy came into town for the Vikings vs. Packers game. While railgating at Armory Green, Wendy was surprised by the variety of retail nearby. She convinced Jason to plan another visit soon to do Christmas shopping.



F

DAVE + MICHAEL

Dave walks via Skyway to his job at a marketing firm downtown and Michael commutes by light rail to a law firm in Bloomington. As Mill District residents, they enjoy proximity to Armory Green and frequenting their favorite restaurants.



G

CAI

Cai lives in a studio apartment in the Armory District where she works nearby as a bartender and is finishing her degree at Minneapolis Community College. Most weekends she meets her friends at the Armory Market to enjoy a fresh brioche and coffee.



H

ELIJAH

Elijah is a recent graduate from culinary training courses at the nearby Catholic Charities Center after looking for a way out of homelessness. He now works at an Armory District restaurant that specializes in using local food sources.

Left Figure 5.20 The Armory - Pro Forma Summary P1

Above Figure 5.21 The Armory - Demographic Character Profiles P1

Following Figure 5.22 Team 1155 Phase I Group Photos



THE FINAL FOUR



By the fifteenth day, the boards were plotted and successfully postmarked. "The Armory" proposal was on its way to Washington D.C. to await the jury's approval. 170 teams ranging from 70 different universities in the United States and Canada alike had submitted for a total of 149 completed proposals. Team 1155 had overcome its first obstacle where 21 other teams failed, which was to actually complete a submission in fifteen days.

The day before the public announcement, Kevin received the call from D.C. Team 1155 had advanced to the finalist round of the 2013 Hines Urban Design Student Competition. Our team had been selected as one of the other top four teams: Ball State/Purdue, Yale, and Harvard.

Within the following days we were debriefed on the next steps of the competition. Scorecards and the finalist brief provided insight on what were the strengths and weaknesses on the initial submission. This feedback administered focused refinements for the final round submission of The Armory.

FINANCIAL SCORECARD

Team #: 1155

Jury Team #: 1

Submission title: The Armory

0=not provided 1=poor 2=fair 3=average 4=good 5=excellent

Pro forma logic, assumptions, and feasibility		Score					Notes	
1	Realistic development cost assumptions?	0	1	2	3	4	5	Clearly and effectively provided
2	Realistic sales/rental income assumptions?	0	1	2	3	4	5	
3	Feasibility of purchase/sales prices of any land?	0	1	2	3	4	5	
4	Feasibility of debt to equity ratio?	0	1	2	3	4	5	
5	Feasibility of cost of debt?	0	1	2	3	4	5	
6	Logical and market-aligned product development and absorption schedule?	0	1	2	3	4	5	

Attractive Proposition for Property Owners		Score					Notes	
7	Realistic current land valuation?	0	1	2	3	4	5	Good organization by phase but need to see totals for each type
8	Realistic valuation of redevelopment proposal?	0	1	2	3	4	5	
9	Realistic subsidy sources and amounts?	0	1	2	3	4	5	
10	Realistic equity sources and amounts?	0	1	2	3	4	5	
11	How achievable and adequate is the IRR given the investors' contributions?	0	1	2	3	4	5	NOTE IRR: 12.79%
12	Is this a winning proposal for the property owners?	0	1	2	3	4	5	

General Observations		Score					Notes	
13	Overall, how well does the financial analysis answer the owners' questions, present a compelling value proposition, and demonstrate strong financial modeling with market-supported assumptions?	0	1	2	3	4	5	Thorough report but with skewed financing conclusions. Could be solved by including revenue assumptions.

Additional Comments:

OVERALL SCORE: 40

LAND USE + DESIGN SCORECARD

Team #: 1155

Jury Team #: 1

Submission title: The Armory

0=not provided 1=poor 2=fair 3=average 4=good 5=excellent

Specific Requirements		Score					Notes	
1	Affordable housing	0	1	2	3	4	5	
2	Parking Ramp	0	1	2	3	4	5	
3	Site relationship to overall study area through vision	0	1	2	3	4	5	
4	Downtown district branding	0	1	2	3	4	5	
5	Connections to stadium	0	1	2	3	4	5	Subtle but recognizable and accessible transversal

Optional Opportunities		Score					Notes	
6	Treatment of Armory Building	0	1	2	3	4	5	Forms captivating centerpiece of entire project
7	F.A.R. Premium use and strategy	0	1	2	3	4	5	

General land use, design, and development plan		Score					Notes	
8	Context analysis and relatedness to development plan	0	1	2	3	4	5	
9	Rational, efficient, and appropriate land use plan	0	1	2	3	4	5	
10	Development schedule and phasing	0	1	2	3	4	5	
11	Urban Design	0	1	2	3	4	5	
12	Connectivity, circulation, walkability	0	1	2	3	4	5	
13	Sustainability and environmental responsiveness	0	1	2	3	4	5	Large green spaces counter-intuitively require a lot of energy to maintain
14	Demographic, stakeholder, neighborhood, political issues	0	1	2	3	4	5	

General Observations		Score					Notes	
15	How clear and effective is the presentation of the proposal?	0	1	2	3	4	5	
16	Do the proposal and its presentation reflect an integrated, multidisciplinary team effort?	0	1	2	3	4	5	
17	Does the proposal communicate a transformative yet appropriate vision for the development site?	0	1	2	3	4	5	Redefines the Armory and surrounding area. Creates an indisputable sense of place.

Additional Comments:

OVERALL SCORE: 66

Above Figure 5.23 The Armory - Phase I Scorecards

Following Figure 5.24 The Armory - Aerial

FINALIST BRIEF

The four finalist teams will have the opportunity to revise their original schemes and complete additional work related to the development site as defined in the competition stage brief.

The Finalist Challenge

The competition jury chose the four finalist teams for their overall excellence in:

- Understanding and analyzing the site and its relationship to downtown Minneapolis and surrounding areas;
- Formulating innovative and feasible design and development frameworks;
- Successfully addressing the site's unique adjacencies to the Mississippi River and to the Vikings Stadium;
- Displaying the potential to advance their proposals to a more comprehensive and realistic level; and
- Graphically communicating their proposals.

The Problem

The final stage of the competition builds on the analysis that informed your urban planning, design, and development schemes for the first stage of competition, while allowing the opportunity to reflect and expound upon your ideas. There are three essential elements to focus on in this stage:

1. Financials -- Carefully examine your pro forma for "realism". You should have market-based data backing up each assumption. Provide specificity on public realm improvements, including construction costs and eventual maintenance
2. Sustainability strategy -- Demonstrate a detailed sustainability strategy for your site that is based in fiscal reality.
3. Phasing --Strengthen the phasing plan for your development, ensuring that (1) the relationship between

the phasing scheme and real estate market dynamics makes sense; (2) phase one is the catalyst for the entire development, is scaled appropriately, and is feasible in the current economy; (3) any proposed open space is included and clearly delineated; and (4) a sense of place is created and reinforced through each phase.

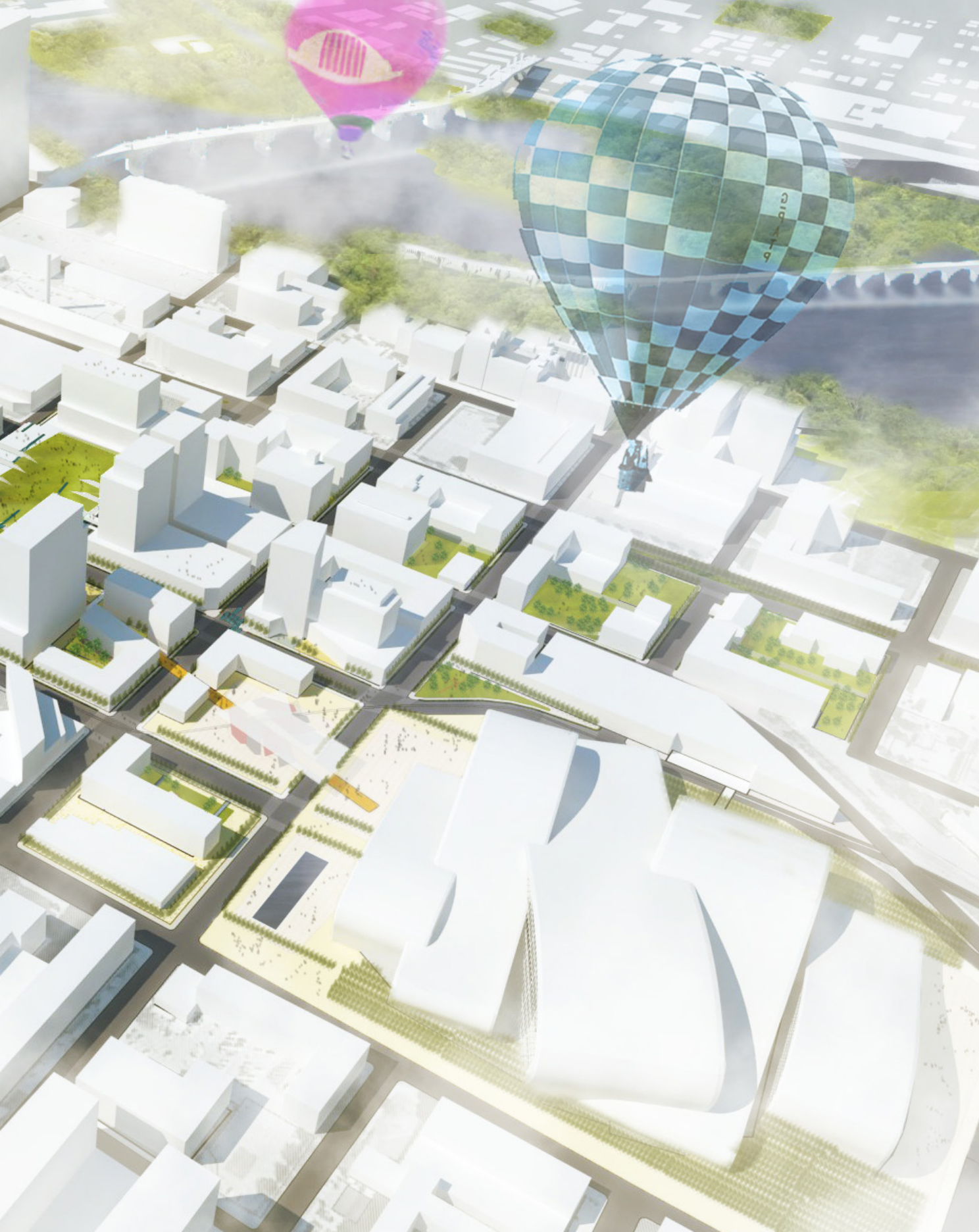
Specific Improvements

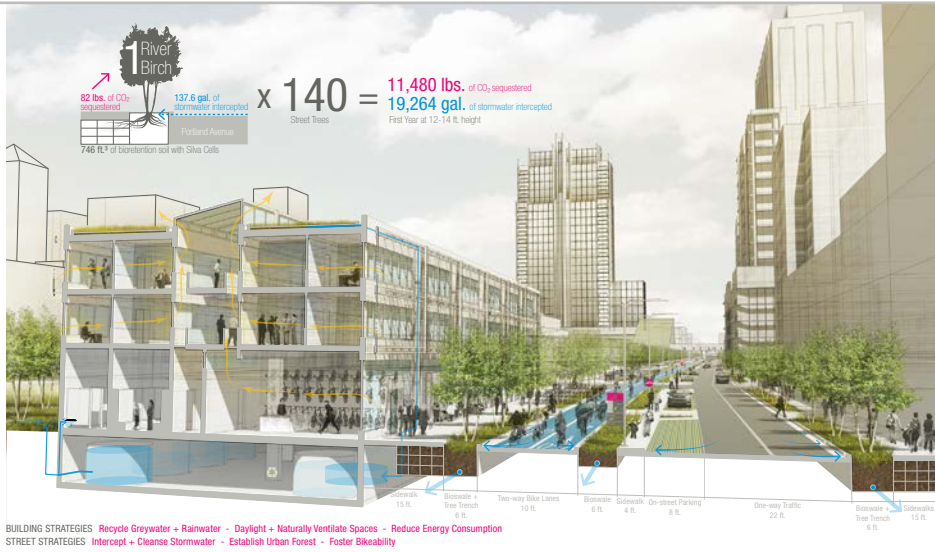
- Examine your proposal's connectivity to the rest of downtown and to the Mississippi River.
- Carefully consider size of your proposal's green space, and how it relates to the rest of the scheme.
- Who will own the public space, and who pays for maintenance?
- Reconsider or justify the hard edge at 5th Avenue.
- Are there subsidies that could be used for infrastructure or other improvements?
- Make sure that the massing and heights of your proposed development are clearly expressed and easily understood, and address building typologies.
- Match images with the plan. Renderings and other illustrations should have a clear correlation to your site plan.
- Identify the locations of market-rate housing and affordable housing in your plan. Make sure the jury understands how many units of each will be developed and where.
- Identify the locations and square footages of the open space in your plan, as well as potential programming for those spaces. Make sure the jury understands how your proposed open space connects to existing open space and places.
- How does your proposal address internal vehicular circulation, through-traffic, and connections to the existing city grid?
- Be prepared to answer specific questions about your development program, performance, structure, cost, and environmental impacts, etc., at the building, site, and district scales.
- Use APA Activity-Based Classification graphic standards on land use maps.

(Adapted from uli.org, 2013)

an indisputable sense of place...



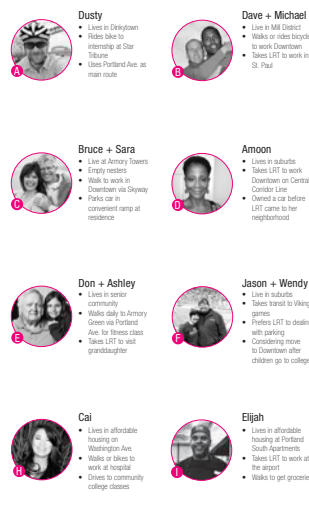
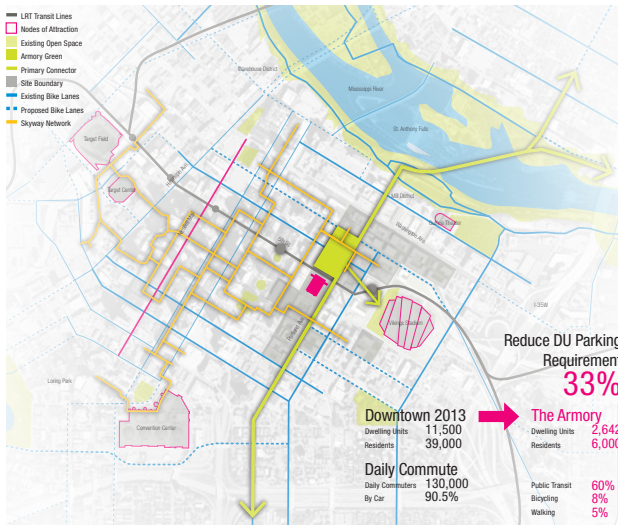
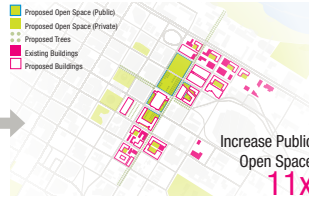
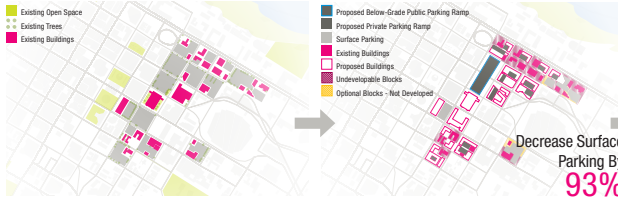




Downtown Minneapolis currently lacks functional open space. Inactive downtown plazas focused on office buildings and existing neighborhood parks rudimentarily connect to the greater open space network that the city is known for. Downtown East is characterized by an urban condition that relies upon convenient and inexpensive surface parking lots. The consistent revenue generated by surface parking is a disincentive to further development. Together, these two conditions contribute to an urban void and an absence of place.

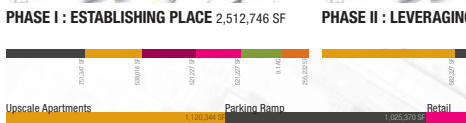
The Army provides the primary civic, multi-use open space that serves Downtown and the Minneapolis/St. Paul region. This open space directly connects to the River and Elliot Park via a revitalized Portland Ave. that is transformed into a logical boulevard. 6th St. extends into Downtown from the Wings stadium and transit stop as a green corridor. Together, a network of public and private open space contributes to a strong sense of place for Downtown. This sense of place creates the value for a development that captures the desire for development to become a livable urban destination.

The Army consolidates surface parking into structured ramps, allowing for an intensification of development that fills the existing urban void with an iconic design. This strategy encourages the Downtown workforce to shift towards other modes of commuter transportation. A smaller dwelling unit to parking space ratio allows for space that can be utilized for other uses, including public and private open space. The consolidation of parking also provides the opportunity to create new public and private open space.

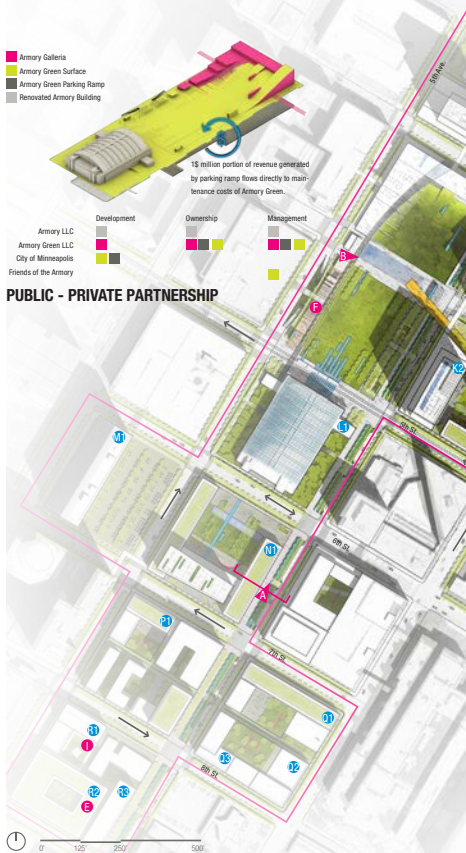


THE ARMY

RESILIENT MINNEAPOLIS

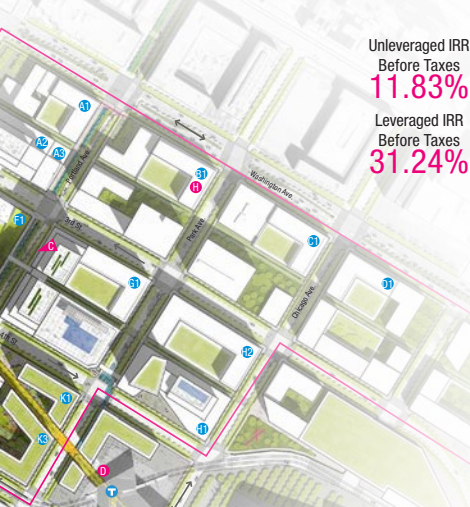
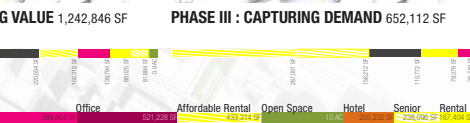


TOTAL BUILDOUT 4,657,919 SF



ARMORY

MINNEAPOLIS BY DESIGN



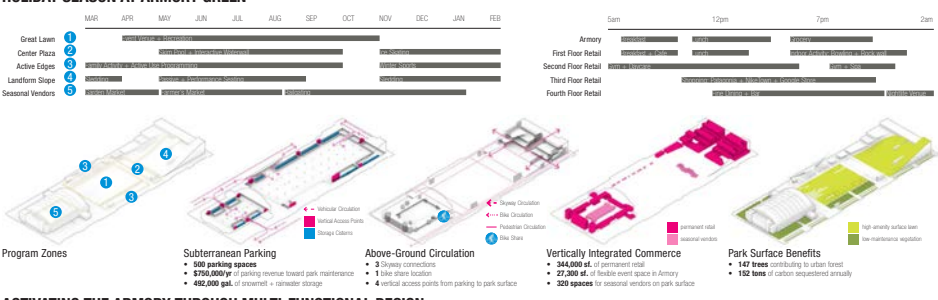
Unleveraged IRR Before Taxes **11.83%**
Leveraged IRR Before Taxes **31.24%**

A LEED GOLD NEIGHBORHOOD DEVELOPMENT

Building	Type	Features	SF	Units	FAR
11	Mid-rise Apartments	Adjacent to Portland Ave.	75,404	73	3.5
12	Office	LEED Certified	450,000	n/a	7.9
13	Office	Adjacent to Blue Ave	6,150	n/a	2.0
14	Mid-rise Apartments	Adjacent to Blue Ave	198,192	135	5.0
15	Mid-rise Apartments	Proximity to Gateway Theater	110,201	105	4.1
16	Mid-rise Apartments	Adjacent to Portland Ave	113,277	95	1.59
17	Mid-rise Apartments	Service + Specialty Retail	194,700	n/a	1.69
18	Mid-rise Apartments	Movie Theater + Specialty	654,845	318	6.14
19	Mid-rise Apartments	Connected to Skyway	308,072	719	5.7
20	Mid-rise Apartments	Connected to road	248,247	130	4.65
21	Mid-rise Apartments	Proximity to Gateway Theater	121,192	88	5.79
22	Mid-rise Apartments	Connected to Skyway	480,070	385	6.26
23	Mid-rise Apartments	Gateway Sports Dist	138,410	90	2.88
24	Mid-rise Apartments	Mixed + Flexible Space	70,323	n/a	1.66
25	Office	Views to Armory	438,860	n/a	4.11
26	Office	Place + Portland Ave	240,325	n/a	2.23
27	Mid-rise Apartments	Ground Floor Retail	88,825	79	3.59
28	Senior Rental	Proximity to Skyway	125,704	91	2.95
29	Mid-rise Apartments	Adjacent to Portland Ave	91,198	48	3.22
30	Mid-rise Apartments	Adjacent to Portland Ave	17,261	42	3.05
31	Mid-rise Apartments	Adjacent to CBD	65,138	81	2.32
32	Senior Rental	Proximity to Skyway	201,101	173	4.47
33	Senior Rental	Proximity to Skyway	87,150	87	4.36
34	Mid-rise Apartments	Ground Floor Retail	4,222,319	2,824	11.02



HOLIDAY SEASON AT ARMORY GREEN

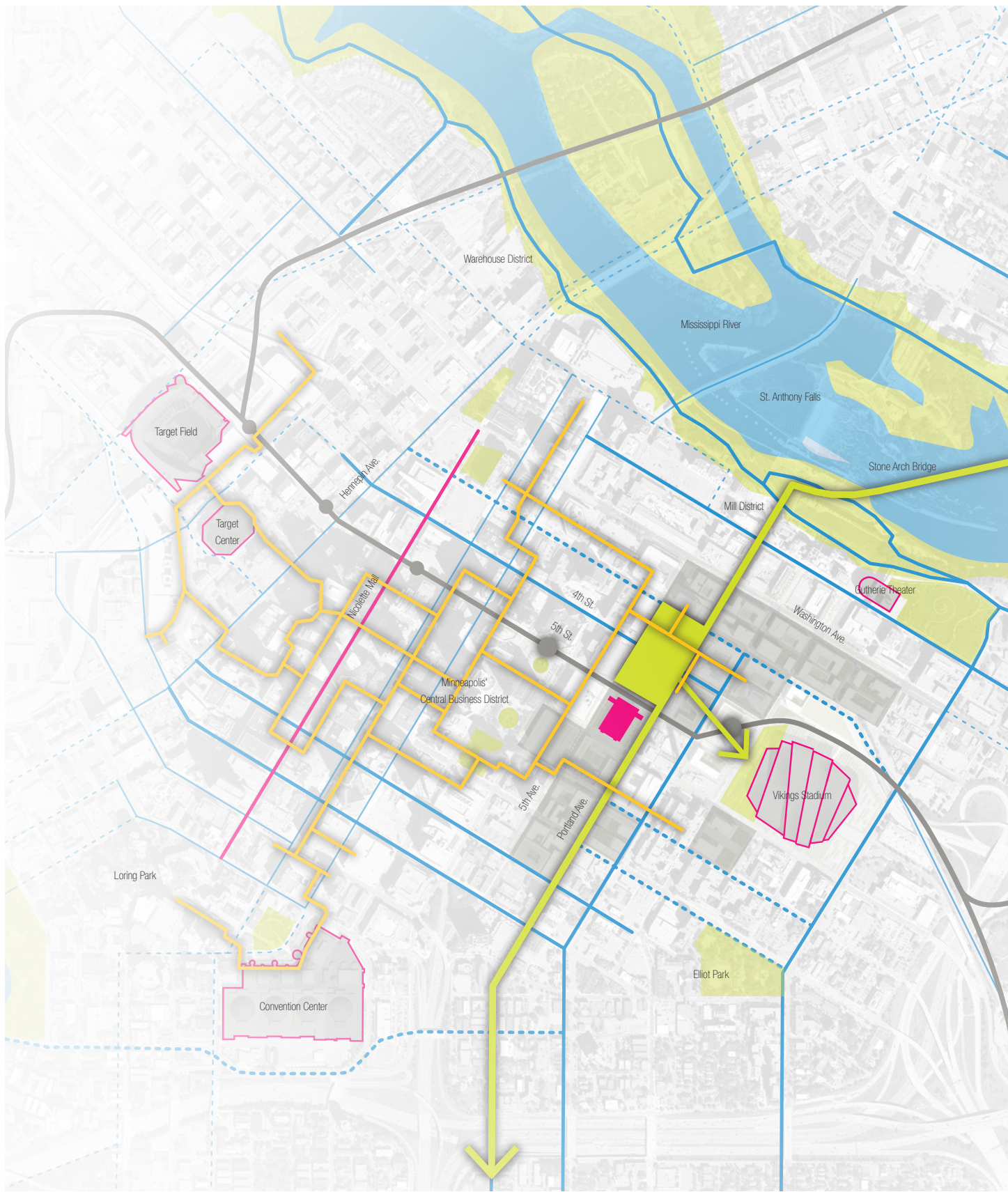


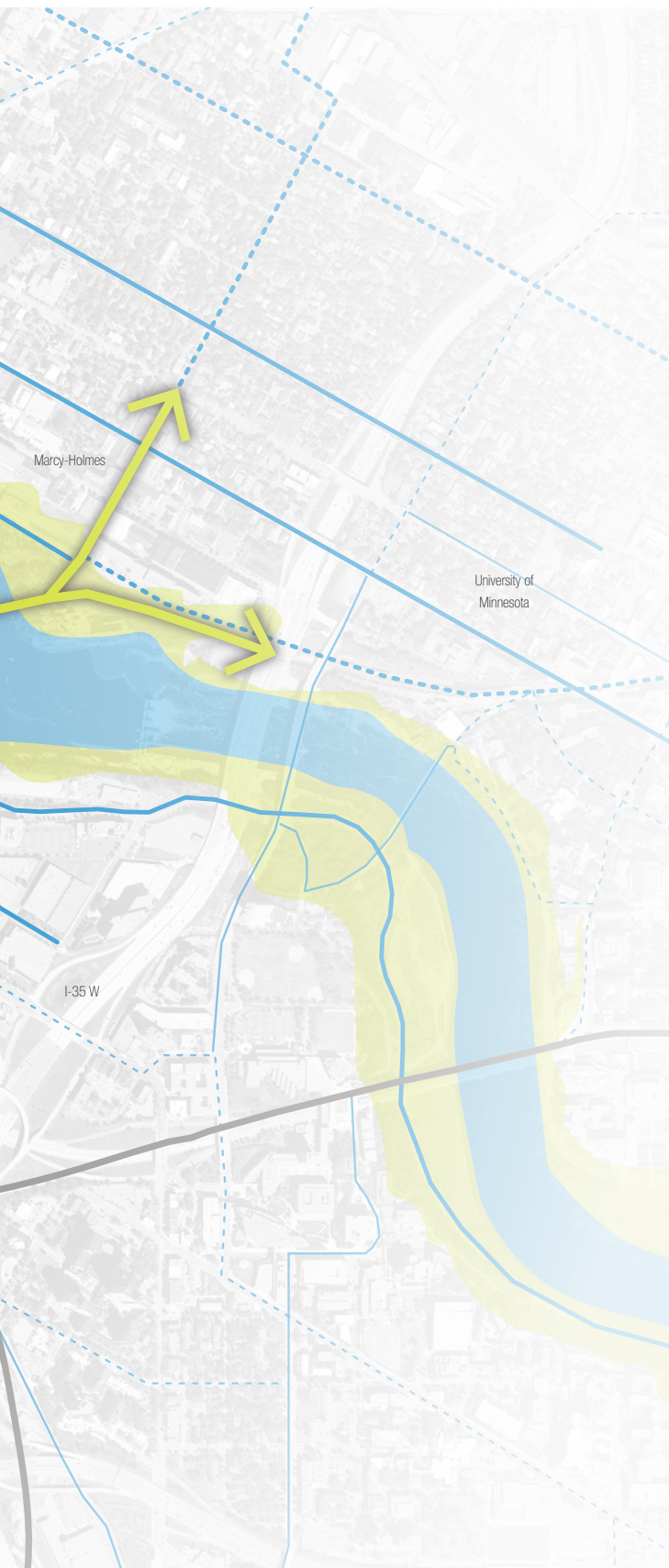
ACTIVATING THE ARMORY THROUGH MULTI-FUNCTIONAL DESIGN



SOMMERFEST PERFORMANCE BY THE MINNESOTA ORCHESTRA AT ARMORY GREEN

Above Figure 5.25 The Armory - Phase II Board





The framework of the development (Figure 5.26) focuses on regional connections, a reinvigorated street network, and the opportunities created by the new transit hub by Vikings Stadium. The Armory serves a clear socio-cultural purpose within the region as a destination, a livable community, and a prominent component of the greater parks system.

The Armory capitalizes on the existing Hiawatha/Northstar light rail line, and the new Central/Southwest line which is completed during Phase I of the development and culminate into the most important transit stop in the region. These connections link The Armory to key destinations including the airport, the University of Minnesota, St. Paul, the majority of the suburbs, and the greater park system in the Minneapolis/St. Paul region. Within this regional network, The Armory is both a destination and a point of departure. Connections to the parks system are also made through the proposal of future bicycle connections, which converge at Portland Avenue on site.

Portland Avenue is the spine of the development - perpendicular to the LRT line running east/west. A revitalized bicycle and pedestrian-focused corridor, this street links The Armory with Elliot Park from the south to the River and the Marcy-Holmes neighborhood to the north. This is also a primary connector for Armory Green to the greater parks system. Washington Avenue serves as the northern boundary of our district and is the main east/west vehicular thoroughfare for Downtown. 5th Street and 4th Street become closed to vehicular traffic between Portland and 5th Avenue while 6th Street becomes two way until 3rd Avenue.

- LRT Transit Lines
- ◻ Nodes of Attraction
- Existing Open Space
- Armory Green
- Primary Connector
- Site Boundary
- Existing Bike Lanes
- - - Proposed Bike Lanes
- Skyway Network

Page Figure 5.26 The Armory - A Prominent Component Of Downtown Minneapolis

FROM WASTE TO PLACE
PARKING LOTS NORTH OF ARMORY



5TH STREET ARMORY FACADE



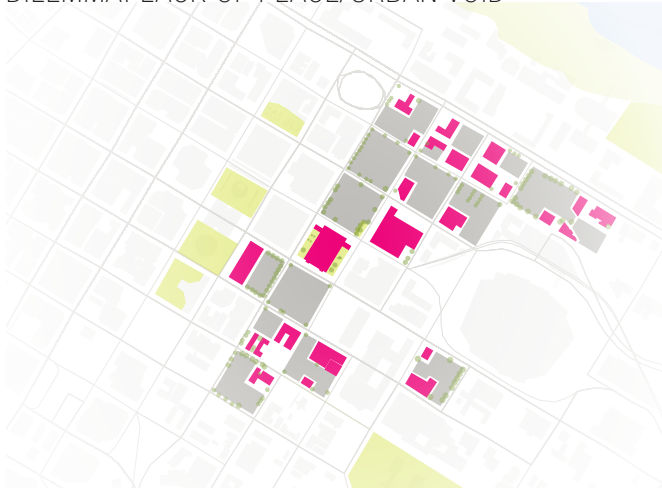
6TH STREET ARMORY FACADE



Left Page Figure 5.27 The Armory - Site Visit Photos

Right Page Figure 5.28 The Armory - Key Site Strategies

DILEMMA: LACK OF PLACE/URBAN VOID



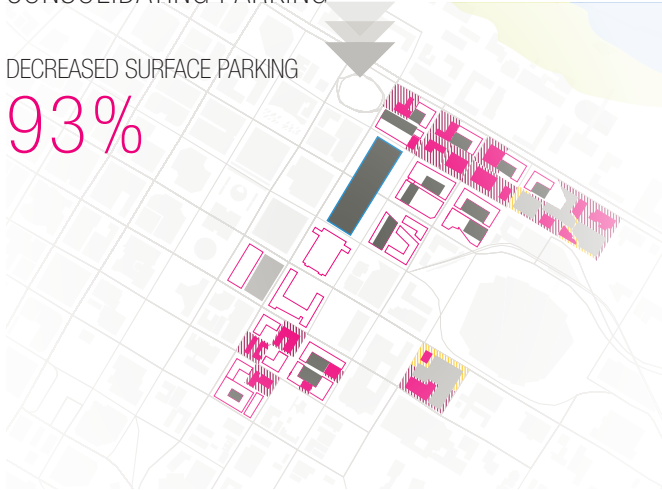
Downtown Minneapolis currently lacks functional open space. Inactive downtown plazas focused on office buildings and outlying neighborhood parks rudimentarily connect to the greater open space network that the city is known for. Downtown East is characterized by an urban condition that relies upon convenient and inexpensive surface parking lots. The consistent revenue generated by surface parking is a disincentive to further development. Together, these two conditions contribute to an urban void and an absence of place.

- Existing Open Space
- Existing Trees
- Existing Buildings

CONSOLIDATING PARKING

DECREASED SURFACE PARKING

93%



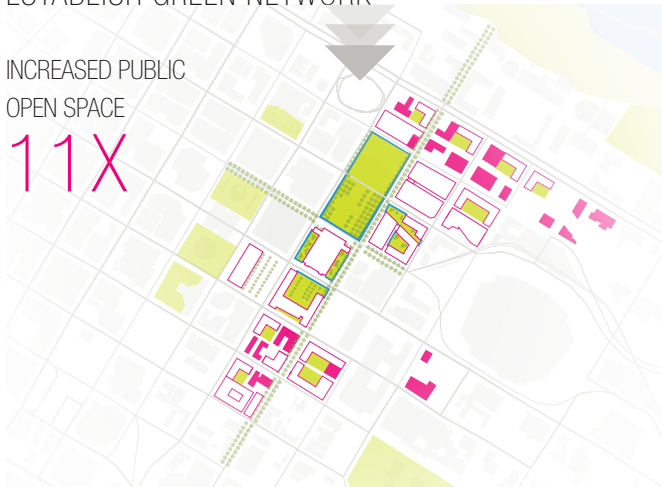
The Armory consolidates surface parking into structured ramps, allowing for an intensification of development that fills the existing urban void with an iconic design. This strategy encourages the Downtown workforce to shift towards other modes of commuter transportation. A smaller dwelling unit to parking space ratio allows for space that can be utilized for other uses, including public and private open space. This resulting consolidation decreases surface parking by 93%.

- Proposed Below-Grade Public Parking Ramp
- Proposed Private Parking Ramp
- Surface Parking
- Existing Buildings
- Proposed Buildings
- Undevelopable Blocks
- Optional Blocks - Not Developed

ESTABLISH GREEN NETWORK

INCREASED PUBLIC OPEN SPACE

11X



The Armory provides the primary civic, multi-use open space that serves Downtown and the Minneapolis/St. Paul region. This open space directly connects to the River and Elliot Park via a revitalized Portland Ave. that is transformed into a bicycle boulevard. 5th St. extends into Downtown from the Vikings stadium and transit stop as a green corridor. Together, a network of public and private open space contributes to a strong sense of place for Downtown. This sense of place creates the value for a development that captures the desire for Minneapolis to become a livable urban destination.

- Proposed Open Space (Public)
- Proposed Open Space (Private)
- Proposed Trees
- Existing Buildings
- Proposed Buildings

1. FINANCIALLY FEASIBLE DEVELOPMENT BASED IN MARKET REALITIES



THE ARMORY

FINANCIAL PRO FORMA SUMMARY BOARD

Financial Summary	
Current Site Value (See "Existing Valuation" Tab)	\$ 135,071,166
Square Footage Developed	\$ 4,151,996
Total Project Cost	\$ 890,272,104
Projected Site Value	\$ 1,377,965,514
Project NPV (12% Discount Rate)	\$ (6,689,668)
Unleveraged IRR	11.83%
Leveraged IRR	31.24%

- Market Rate Retail
- Senior Residential
- Affordable Rental
- High-End Apartments
- Hotel
- Retail
- Office
- Open Space
- Parking
- Skyway
- Future Development

1. Summary Pro Forma											Team: 1155
	Year 0 2013-2014	Phase I: Establishing Place 2015	Phase II: Leveraging Value 2016	Phase II: Leveraging Value 2017	2019	2020	Phase III: Capturing Demand 2021	2022	2023	2024	
Net Operating Income											
Upscale Apartments	\$ -	\$ -	\$ -	\$ 7,666,864	\$ 9,814,681	\$ 21,448,638	\$ 24,449,711	\$ 25,156,517	\$ 25,911,212	\$ 26,688,549	\$ 27,489,205
Market Apartments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 920,748	\$ 1,178,689	\$ 2,248,416	\$ 2,536,211	\$ 2,759,148	\$ 2,841,923
Affordable Apartments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,462,604	\$ 2,860,657	\$ 2,860,657	\$ 3,122,904	\$ 3,122,904	\$ 3,122,904
Senior Independent Living	\$ -	\$ -	\$ -	\$ 3,750,543	\$ 3,750,543	\$ 988,909	\$ 1,265,944	\$ 3,473,240	\$ 4,078,087	\$ 4,540,164	\$ 4,676,369
Existing Office	\$ 13,032,509	\$ 6,516,254	\$ 6,516,254	\$ -	\$ -	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543	\$ 3,750,543
LEED Certified Office	\$ -	\$ -	\$ -	\$ 5,187,517	\$ -	\$ -	\$ 5,572,756	\$ 5,774,057	\$ 5,981,397	\$ 6,194,958	\$ 6,414,926
Office	\$ -	\$ -	\$ -	\$ 8,885,497	\$ 5,058,369	\$ 6,649,097	\$ 6,907,700	\$ 7,528,069	\$ 7,796,393	\$ 8,072,766	\$ 8,357,431
Hotel	\$ -	\$ -	\$ -	\$ 8,200,271	\$ 8,446,279	\$ 8,499,667	\$ 8,960,657	\$ 9,299,477	\$ 9,506,361	\$ 9,791,552	\$ 10,085,299
Above Structured Parking	\$ -	\$ -	\$ -	\$ 3,838,268	\$ 3,953,416	\$ 5,733,067	\$ 9,905,059	\$ 7,277,942	\$ 7,496,280	\$ 7,721,168	\$ 7,952,884
Below Structured Parking	\$ -	\$ -	\$ -	\$ 3,464,941	\$ 3,861,869	\$ 3,952,715	\$ 4,092,456	\$ 4,236,796	\$ 4,385,240	\$ 4,538,177	\$ 4,695,463
Surface Parking	\$ 720,479	\$ 1,553,006	\$ 1,553,006	\$ 988,674	\$ -	\$ 177,642	\$ 177,642	\$ 177,642	\$ 177,642	\$ 177,642	\$ 177,642
Total Net Operating Income	\$ 13,752,988	\$ 8,069,261	\$ 8,069,261	\$ 38,202,828	\$ 41,206,128	\$ 57,913,771	\$ 62,462,657	\$ 71,522,641	\$ 74,692,603	\$ 77,577,540	\$ 79,791,294
Development Costs (Not Including Owned Land)											
Upscale Apartments	\$ 61,729,984	\$ 63,581,884	\$ 70,933,673	\$ 73,061,683	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Market Apartments	\$ -	\$ -	\$ 7,396,270	\$ 7,620,218	\$ 7,077,807	\$ 7,290,141	\$ -	\$ -	\$ -	\$ -	\$ -
Affordable Apartments	\$ -	\$ -	\$ 10,122,062	\$ 10,425,224	\$ 15,317,358	\$ 15,776,879	\$ -	\$ -	\$ -	\$ -	\$ -
Senior Independent Living	\$ -	\$ -	\$ 7,594,080	\$ 7,821,902	\$ 15,369,685	\$ 15,830,775	\$ -	\$ -	\$ -	\$ -	\$ -
Existing Office	\$ 30,243,085	\$ 31,150,378	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LEED Certified Office	\$ 27,602,703	\$ 23,281,814	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office	\$ 40,956,951	\$ 42,185,660	\$ 9,357,852	\$ 9,638,587	\$ 2,752,156	\$ 2,834,721	\$ -	\$ -	\$ -	\$ -	\$ -
Hotel	\$ 28,016,353	\$ 27,995,435	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Above Structured Parking	\$ 13,244,873	\$ 13,662,819	\$ 6,150,674	\$ 6,335,194	\$ 4,427,657	\$ 4,560,486	\$ -	\$ -	\$ -	\$ -	\$ -
Below Structured Parking	\$ 36,208,850	\$ 37,295,116	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Demo & Remediation	\$ 1,173,401	\$ -	\$ 520,077	\$ -	\$ 364,231	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rolling Option Cost	\$ 8,820,793	\$ -	\$ 4,679,334	\$ -	\$ 12,881,532	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land Acquisition	\$ 1,625,245	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Infrastructure	\$ 15,543,670	\$ 25,271,847	\$ 3,301,693	\$ 5,401,684	\$ 1,433,190	\$ 1,924,602	\$ -	\$ -	\$ -	\$ -	\$ -
Developer Fees	\$ 5,203,738	\$ 5,288,499	\$ 2,401,154	\$ 2,406,100	\$ 1,192,472	\$ 964,352	\$ -	\$ -	\$ -	\$ -	\$ -
Owned Land	\$ 28,535,261	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Development Costs	\$ 265,390,646	\$ 269,713,451	\$ 122,458,869	\$ 122,711,092	\$ 60,816,088	\$ 49,181,956	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Cash Flow											
Net Operating Income	\$ 13,752,988	\$ 8,069,261	\$ 8,069,261	\$ 38,202,828	\$ 41,206,128	\$ 57,913,771	\$ 62,462,657	\$ 71,522,641	\$ 74,692,603	\$ 77,577,540	\$ 79,791,294
Total Asset Value	\$ 135,071,166	\$ 135,071,166	\$ 135,071,166	\$ 573,108,352	\$ 620,001,984	\$ 915,384,539	\$ 991,146,551	\$ 1,130,996,119	\$ 1,179,966,604	\$ 1,224,733,560	\$ 1,259,579,751
Total Costs of Sale	\$ 6%	\$ 265,390,646	\$ 269,713,451	\$ 122,458,869	\$ 122,711,092	\$ 60,816,088	\$ 49,181,956	\$ -	\$ -	\$ -	\$ -
Total Development Costs	\$ 278,642,242	\$ 276,666,299	\$ 600,000	\$ 9,532,915	\$ 5,992,689	\$ 12,805,053	\$ 5,375,149	\$ 5,540,217	\$ 5,710,237	\$ 5,885,338	\$ 6,070,751
Public Subsidies	\$ 4,856,545	\$ 18,100,173	\$ 3,744,427	\$ 11,256,951	\$ 1,161,474	\$ 3,246,016	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Reserve	\$ 242,827,949	\$ 260,147,325	\$ 125,603,296	\$ 124,455,128	\$ 56,384,873	\$ 39,424,915	\$ -	\$ -	\$ -	\$ -	\$ -
Construction Loan	\$ 5,374,806	\$ 2,687,403	\$ 2,987,403	\$ 2,987,403	\$ 20,688,209	\$ 22,309,536	\$ 32,447,926	\$ 34,690,199	\$ 39,584,884	\$ 41,298,831	\$ 42,865,674
RE Property Taxes (Commercial 4%, Residential 5%)	\$ 13,752,988	\$ (227,288,001)	\$ (218,865,121)	\$ (62,899,016)	\$ (81,383,357)	\$ (18,457,490)	\$ (3,314,150)	\$ 42,207,580	\$ 40,648,956	\$ 41,988,946	\$ 43,137,965,514
Net Cash Flow	\$ 13,752,988	\$ (227,288,001)	\$ (218,865,121)	\$ (62,899,016)	\$ (81,383,357)	\$ (18,457,490)	\$ (3,314,150)	\$ 42,207,580	\$ 40,648,956	\$ 41,988,946	\$ 43,137,965,514
Value of Initial Land Contribution											
Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Construction Interest	\$ (4,449,688)	\$ (17,405,609)	\$ (3,545,091)	\$ (10,314,085)	\$ (1,550,584)	\$ (3,960,404)	\$ -	\$ -	\$ -	\$ -	\$ -
Bridge Loan Interest	\$ (3,625,926)	\$ (3,625,926)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Permanent Loan Fees	\$ -	\$ -	\$ (22,737,152)	\$ (22,737,152)	\$ (36,210,563)	\$ (36,210,563)	\$ (41,384,086)	\$ (41,384,086)	\$ (41,384,086)	\$ (41,384,086)	\$ (696,690,501)
Loan Proceeds	\$ 161,806,823	\$ 260,147,325	\$ 125,603,296	\$ 124,455,128	\$ 56,384,873	\$ 96,009,793	\$ -	\$ -	\$ -	\$ -	\$ -
Leveraged Net Cash Flow	\$ (102,992,053)	\$ 20,520,670	\$ 16,513,037	\$ 10,000,534	\$ 166,036	\$ 52,524,669	\$ 823,504	\$ (75,130)	\$ 604,860	\$ 681,275,011	\$ -
Net Present Value	\$ (6,689,668)	\$ 699,311,142	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Leveraged Net Present Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Loan to Value Ratio (LTV)	73.63%	73.41%	73.41%	67.90%	67.90%	67.90%	67.90%	67.90%	67.90%	67.90%	67.90%
Loan to Cost Ratio (LTC)	14.86%	14.86%	14.86%	65.76%	65.76%	65.76%	65.76%	65.76%	65.76%	65.76%	65.76%
Unleveraged IRR Before Taxes	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%
Leveraged IRR Before Taxes	31.24%	31.24%	31.24%	31.24%	31.24%	31.24%	31.24%	31.24%	31.24%	31.24%	31.24%
Wind off Cost	1.6	1.2	1.6	1.6	1.6	1.6	1.6	1.7	1.8	1.9	Payoff

2. Multiyear Development Program											
Project Buildout by Development Units	Year-by-Year Cumulative Absorption										
	Total Buildout	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Upscale Apartments	1,008 (units)	-	-	484	484	1,008	1,008	1,008	1,008	1,008	1,008
Market Apartments	151 (units)	-	-	-	-	79	79	151	151	151	151
Affordable Apartments	487 (units)	-	-	-	-	187	187	487	487	487	487
Senior Independent Living	298 (units)	-	-	-	-	82	82	298	298	298	298
Hotel	359 (rooms)	-	-	359	359	359	359	359	359	359	359
Above Structured Parking	2,024 (spaces)	-	-	1,167	1,167	1,677	1,677	2,024	2,024	2,024	2,024
Below Structured Parking	1,181 (spaces)	-	-	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181
Total	4,151,996 (s.f.)	-	-	2,012,814	2,012,814	3,499,884	3,499,884	4,151,996	4,151,996	4,151,996	4,151,996
Project Buildout by Area											
Upscale Apartments	1,120,343 (s.f.)	-	-	538,016	538,016	1,120,343	1,120,343	1,120,343	1,120,343	1,120,343	1,120,343
Market Apartments	167,803 (s.f.)	-	-	-	-	88,025	88,025	167,803	167,803	167,803	167,803
Affordable Apartments	433,313 (s.f.)	-	-	-	-	166,312	166,312	433,313	433,313	433,313	433,313
Senior Independent Living	238,096 (s.f.)	-	-	-	-	81,884	81,884	238,096	238,096	238,096	238,096
Existing Office	297,599 (s.f.)	-	-	297,599	297,599	297,599	297,599	297,599	297,599	297,599	297,599
LEED Certified Office	223,628 (s.f.)	-	-	-	-	223,628	223,628	223,628	223,628	223,628	223,628
Office	518,629 (s.f.)	-	-	358,036	358,036	479,880	479,880	518,629	518,629	518,629	518,629
Hotel	127,616 (s.f.)	-	-	127,616	127,616	127,616	127,616	127,616	127,616	127,616	127,616
Above Structured Parking	647,537 (s.f.)	-	-	373,515	373,515	536,765	536,765	647,537	647,537	647,537	647,537
Below Structured Parking	377,832 (s.f.)	-	-	377,832	377,832	377,832	377,832	377,832	377,832	377,832	377,832
Total	4,151,996 (s.f.)	-	-	2,012,814	2,012,814	3,499,884	3,499,884	4,151,996	4,151,996	4,151,996	4,151,996

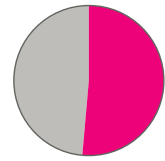
3. Unit Development and Infrastructure Costs		
Development Costs	Unit Cost	Total Cost
Upscale Apartments	\$ 267,088 (\$ per unit)	\$ 269,307,224
Market Apartments	\$ 195,048 (\$ per unit)	\$ 29,386,436
Affordable Apartments	\$ 105,937 (\$ per unit)	\$ 51,642,024
Senior Independent		



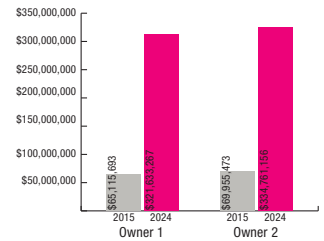
○ Assets:
\$1,377,965,514

● Liabilities:
\$696,690,501

● Net Worth:
\$681,275,014



2024 Owner's Balance



Net Worth

Finance Narrative

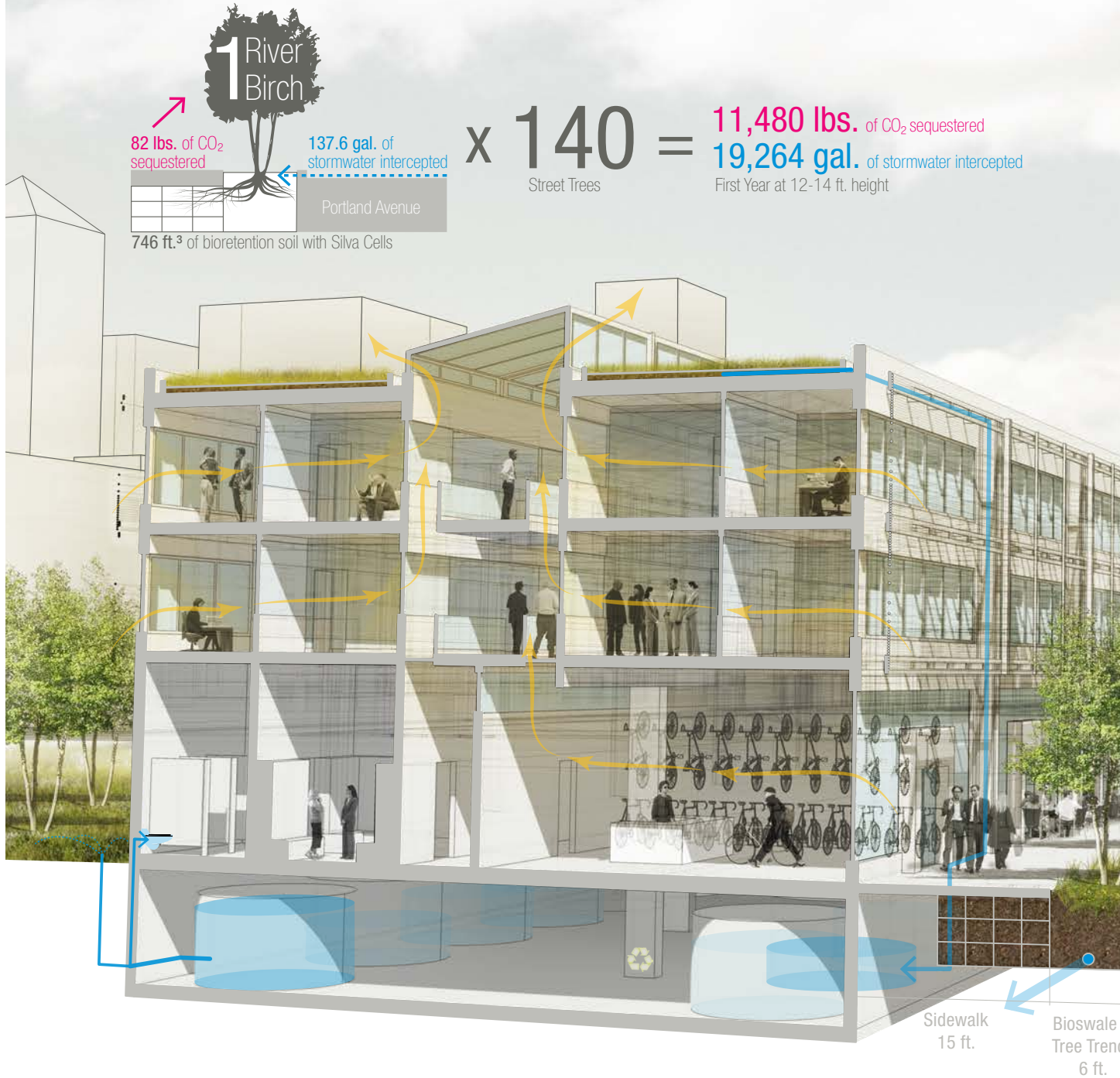
- Owner One and Owner Two form L.L.C. holding company with each owner's respective interest corresponding to their initial wholly owned land contributions.
- Subsidiary L.L.C.s (wholly owned by the L.L.C. holding company) will be formed to limit risk of vicarious and contributory liability and enhance the ease of obtaining subsidies.
- In the current market financing options are limited to pre-leased office buildings, apartments and supportive retail. For-sale residential construction financing is unavailable in the current market without substantial pre-sale activity which will create long-term project delays.
- Our market driven proposed development will occur in three phases over six years.
- Negotiate and secure rolling options on optional parcels: A, B, C, D, L, Q and R.
- Pre-approval for construction and bridge Loan financing beating requirements of debt service coverage of 1.2, loan to value (LTV) of 75% and loan to cost of 75%.

Subsidy Narrative

- Accept the city's offer: (1) Minneapolis to pay for construction of a 500 space parking ramp in any configuration and; (2) To provide \$600,000 in tax abatement spread over Phase I. This offer is conditioned on our construction of at least 100 units of affordable housing.
- Parcel L (The Armory) meets the Redevelopment TIF District requirements (25 year district).
 - Blight and Geographic qualifications satisfied: (1) 70% of district contains site improvements; and (2) 50% of the district contains "Substandard Buildings." A subjective test with a necessary but not sufficient condition that spending 15% of the cost of a new building would not bring the current building up to code.
 - "But For" requirement satisfied. The Armory's condition and limited use create a situation in which "but for" the use of the TIF, sufficient return would be unlikely to justify renovation and restoration of this historic building in the "reasonably foreseeable future".
- Syndication of a 20% Federal and a parallel 20% State Historic Rehabilitation Tax Credit for the Armory.
 - Rehabilitation of the certified historic building, the Armory, following the Secretary of the Interior's Standards for Rehabilitation, and approval by the National Park Service and Minnesota State Historic Preservation Office.
- Parcel H meets the Renewal and Renovation TIF District requirements (15 years).
 - Blight and Geographic qualifications satisfied – 70% of the district contains site improvements, 20% of the district contains "Substandard Buildings." A subjective test with a necessary but not sufficient condition that 15% of the cost of a new building would not bring the current building up to code.
 - "But For" requirement satisfied. Hotel/Apartment Complex would not be built "but for" the use of the TIF in the "reasonably foreseeable future". This is due to existing hotels selling at cap rates that make it cost prohibitive to build a new hotel despite a need for a hotel adjacent to the new Vikings Stadium and "The Armory" development. Additionally, there would be a net increase in market value for this site as compared to the likely development that would occur otherwise.
- Parcels with affordable housing meet LHIA (Local Housing Incentive Account) requirements and funds provided will be matched by the City of Minneapolis. This totals \$600,000 in Phase II and \$700,000 in Phase III. At this time GAP financing from the Minneapolis Affordable Housing Trust are not required.
 - Our development team competes for and wins these limited funds by establishing that a significant component of our affordable housing buildings serve households with incomes at or below 60% AMI. The neighborhood review will find that this encourages growth along a major urban corridor and upholds diversification benchmark levels.
- Syndication of 9% LHTC (Low Income Housing Tax Credit)
 - Our development team competes for and wins a 9% tax credit based on the 20/50 minimum set-aside selection (20% of units for HH with sub 50% AMI). Rent limits will be enforced. Minimum affordability period of 30 years with reporting to the IRS.

2. SENSIBLE ENVIRONMENTAL + SOCIAL SUSTAINABILITY

BUILDING STRATEGIES Recycle Greywater + Rainwater - Daylight + Naturally Ventilate Spaces - Reduce Energy Consumption
STREET STRATEGIES Intercept + Cleanse Stormwater - Establish Urban Forest - Foster Bikeability



Above Figure 5.32 Morning Ride On Portland Avenue: A Sustainable Corridor



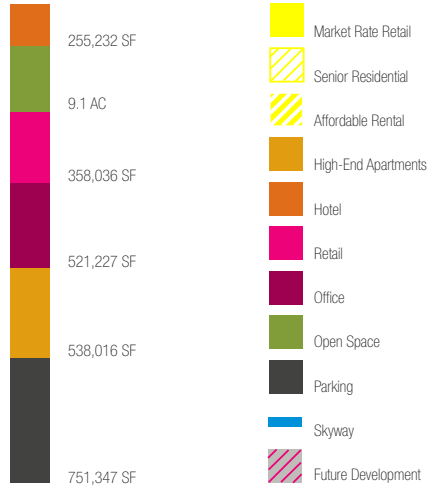
At the district scale, The Armory achieves LEED Gold status as a neighborhood development. Encompassed within the benchmarks of this achievement are a set of strategies that address bikeability, stormwater management, and increasing urban forest.

At the site scale, buildings maximize solar, water, and energy efficiency. The Wells Fargo office building achieves LEED certification, while other buildings utilize green roof terraces where appropriate and office buildings provide lockers and showers for bicycle commuters. Rainwater is captured and collected in cisterns to water native and well-adapted flora in open space areas.

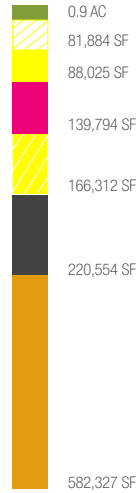
Portland Avenue (Figure 5.32) is a unique street typology that fulfills the need for a north/south bicycle corridor that extends from Elliot Park north to the historic Stone Arch Pedestrian Bridge over the River. Curbs separate bike lanes from vehicular traffic, offering greater safety. Vehicular traffic is narrowed from three lanes to two, decreasing speeds while still accommodating on street parking. Pervious pavement allows stormwater to infiltrate the surface and into the structured soil provided by Silva Cells for street trees.

3. A CONSERVATIVE PHASING STRATEGY

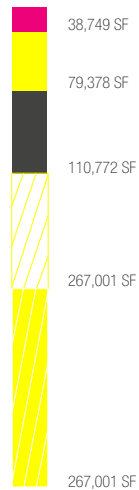
PHASE I: ESTABLISHING PLACE TOTAL: 2,512,746 SF



PHASE II: LEVERAGING VALUE TOTAL: 1,242,846 SF



PHASE III: CAPTURING DEMAND TOTAL: 652,112 SF



Above Figure 5.33 The Armory - Phasing Strategies P2

Following Figure 5.34 East Village Senior Living Rooftop Garden

Phasing becomes critical with a market that is ripe and developers are anxious to fill gaps of supply. By not delaying Phase II or III then there is substantial evidence that the development will come online at the tail end of the market cycle leading to increased vacancy. Therefore a conservative approach provides for three phases with two-year construction stacked back to back with a third phase that will be unaffected by the current market cycle, see Figure 5.33. This allows the proposal to capitalize on unmet demand before additional construction is put in place.

Phase I is the catalyst development, Armory Green, an iconic urban park structure with the retail component and Skyway connection. This development has been pre-agreed to be built by the city as an underground parking garage with a green landscaped terraced roof. Care and maintenance will be provided by a non-profit set up by the city. Revenues from the parking structure will pay for this maintenance. Additionally as a condition the owners are required to lease 300 spaces at \$3000 annually for 10 years. The retail component of the park will be owned and maintained by an LLC under the Owner's holding company. A contract with Wells Fargo in the fully pre leased office building of roughly 300,000 sf. The selling point for this credit tenant is the fantastic views on both sides of the building, One way overlooking the iconic Armory Green and the other overlooking the Guthrie Theater and Mississippi River. Combined with these views and strategic building placement and connections to the skyway allows the agents to command Class A 20+ story market rents.

To the south and east of the office building is our residential building, Armory Towers. The proposal brings together views overlooking Armory Green accompanied with the panorama of the Minneapolis' skyline, all this is integrated with strategic pricing and luxury amenities, including a skywalk. The Armory Hotel is strategically located for river and Guthrie Theater views for easy access to the stadium and rail lines and Skyway connectability.

The Star Tribune is a pre leased office building south of the Armory. This office building was designed specifically to meet the Star Tribune's changing needs as a newspaper moving into the digital/paperless age. The central courtyard provides workers a place of community.

Finally, low-income housing is delivered towards the southwest of the project where residents will have easy access to their work through the nearby Skyway access.

Phase II is about leveraging the value created in Phase I and begins with construction of the Star Tribune Terrace. This building will complement the Phase I Armory Towers. It's residents will enjoy similar views overlooking Armory Green and the panorama of Minneapolis skyline. It will also be made up of luxury apartments in corresponding amenities including the Skyway. Alongside the hotel is new upscale residential units, these units will be able to use hotel amenities and have that critical access to the Skyway. Finally, the proposal addresses the demand for quality senior housing and ensures that market needs would still be met. Additionally the proximity to Hennepin County Medical Center makes the senior citizen development substantially more attractive for health and safety reasons.

Phase III captures the demand created from the aforementioned phases and development continues with this conservative approach by adding more senior housing and low income housing. The affordable housing along Washington Avenue is absorbed quickly due to the large unmet demand locally (Team 1155, 2013).



StarTribune



Google

StarTribune | stage + arts



Prince returns to the Armory for the first time since 1982

Prince, Minnesota native and rock & pop legend, is scheduled to perform at the Armory for the first time since 1982. The show is his single most...

from the homepage

StarTribune's homepage features a top story at www.startribune.com/homepage

Image credit: iStockphoto.com/Chris Johnson

Local Update: 'Shogun' & 'Darth Vader' projects a high-profile, high-profile... 'The City'... 'The City'... 'The City'...

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Local Update: 'Shogun' & 'Darth Vader' projects a high-profile, high-profile... 'The City'... 'The City'... 'The City'...

Local Update: 'Shogun' & 'Darth Vader' projects a high-profile, high-profile... 'The City'... 'The City'... 'The City'...

stage + art events

Even after the... Minnesota... The City... The City... The City...

Vikings... The City... The City... The City...

A LEED GOLD NEIGHBORHOOD DEVELOPMENT

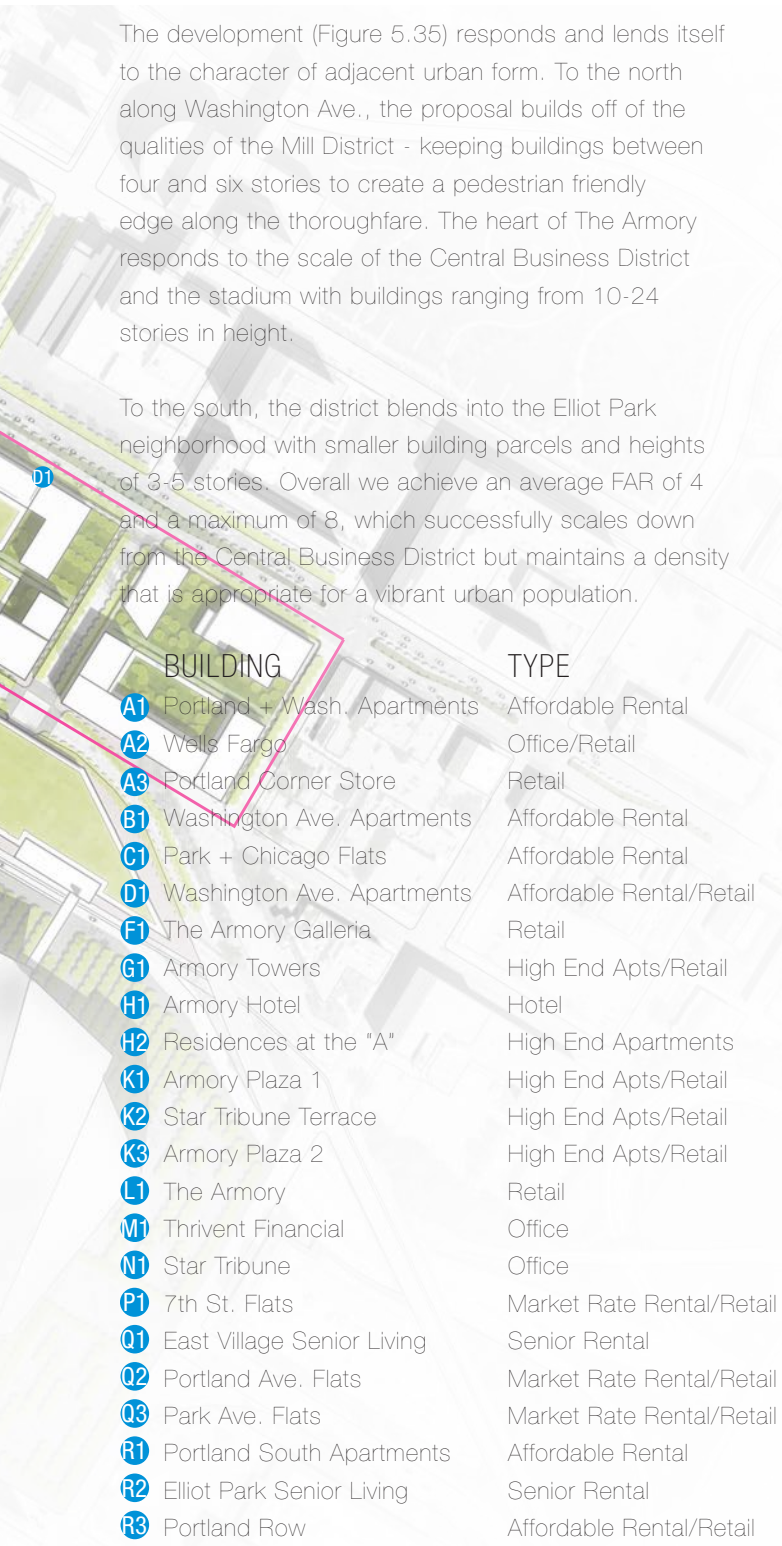


The development (Figure 5.35) responds and lends itself to the character of adjacent urban form. To the north along Washington Ave., the proposal builds off of the qualities of the Mill District - keeping buildings between four and six stories to create a pedestrian friendly edge along the thoroughfare. The heart of The Armory responds to the scale of the Central Business District and the stadium with buildings ranging from 10-24 stories in height.

To the south, the district blends into the Elliot Park neighborhood with smaller building parcels and heights of 3-5 stories. Overall we achieve an average FAR of 4 and a maximum of 8, which successfully scales down from the Central Business District but maintains a density that is appropriate for a vibrant urban population.

At the site scale, strategic moves create pedestrian scale connections. A "cut" from the transit hub to Portland Ave. and Armory Green sets up a promenade-like experience that connects the Stadium to the Park. Key connections to the Skyway system are made to Armory Green, high-density mixed use buildings, offices, and hotel.

While these Skyway linkages are important, it is also critical to create a pedestrian-oriented street experience for the warmer months. This occurs primarily with retail adjacent to and within Armory Green, with shaded sidewalks, and appropriate building height to street width ratios. Together these strategies for making connections at a range of scales creates a development with strong social and economic value.



BUILDING	TYPE	FEATURES	SF	UNITS	FAR
A1 Portland + Wash. Apartments	Affordable Rental	Adjacent to Portland Ave.	75,404	73	3.5
A2 Wells Fargo	Office/Retail	LEED Certified	410,489	n/a	7.9
A3 Portland Corner Store	Retail	Adjacent to Bike share	6,198	n/a	2.0
B1 Washington Ave. Apartments	Affordable Rental	Ground Floor Retail	166,162	135	5.0
C1 Park + Chicago Flats	Affordable Rental	Proximity to Guthrie Theater	117,821	105	4.1
D1 Washington Ave. Apartments	Affordable Rental/Retail	Ground Floor Retail	112,277	80	1.59
F1 The Armory Galleria	Retail	Service + Specialty Retail	184,793	n/a	1.69
G1 Armory Towers	High End Apts/Retail	Movie Theater + Skyway	654,645	318	6.14
H1 Armory Hotel	Hotel	Connected to Skyway	308,072	719	5.7
H2 Residences at the "A"	High End Apartments	Connected to Hotel	248,247	130	4.65
K1 Armory Plaza 1	High End Apts/Retail	Pedestrian Boulevard	121,192	88	5.79
K2 Star Tribune Terrace	High End Apts/Retail	Connected to Skyway	469,470	305	6.36
K3 Armory Plaza 2	High End Apts/Retail	Gjallarhorn Sports Bar	138,410	92	2.88
L1 The Armory	Retail	Market + Flexible Space	70,323	n/a	n/a
M1 Thrivent Financial	Office	Views to Armory	438,660	n/a	4.11
N1 Star Tribune	Office	Plaza + Portland Ave.	240,325	n/a	2.23
P1 7th St. Flats	Market Rate Rental/Retail	Ground Floor Retail	88,625	79	3.29
Q1 East Village Senior Living	Senior Rental	Proximity to Hospital	135,704	91	2.92
Q2 Portland Ave. Flats	Market Rate Rental/Retail	Ground Floor Retail	61,196	46	3.22
Q3 Park Ave. Flats	Market Rate Rental/Retail	Adjacent to Portland Ave.	17,261	42	3.05
R1 Portland South Apartments	Affordable Rental	Adjacent to CBD	65,138	81	2.32
R2 Elliot Park Senior Living	Senior Rental	Private Courtyard	201,101	173	4.47
R3 Portland Row	Affordable Rental/Retail	Ground Floor Retail	67,150	67	4.36
Total			4,222,319	2,624	

Left Figure 5.35 The Armory - Masterplan P2
 Following Figure 5.36 Holiday Season At Armory Green





CRYWIS



Happy Holidays! Seasons Greetings! 28° F



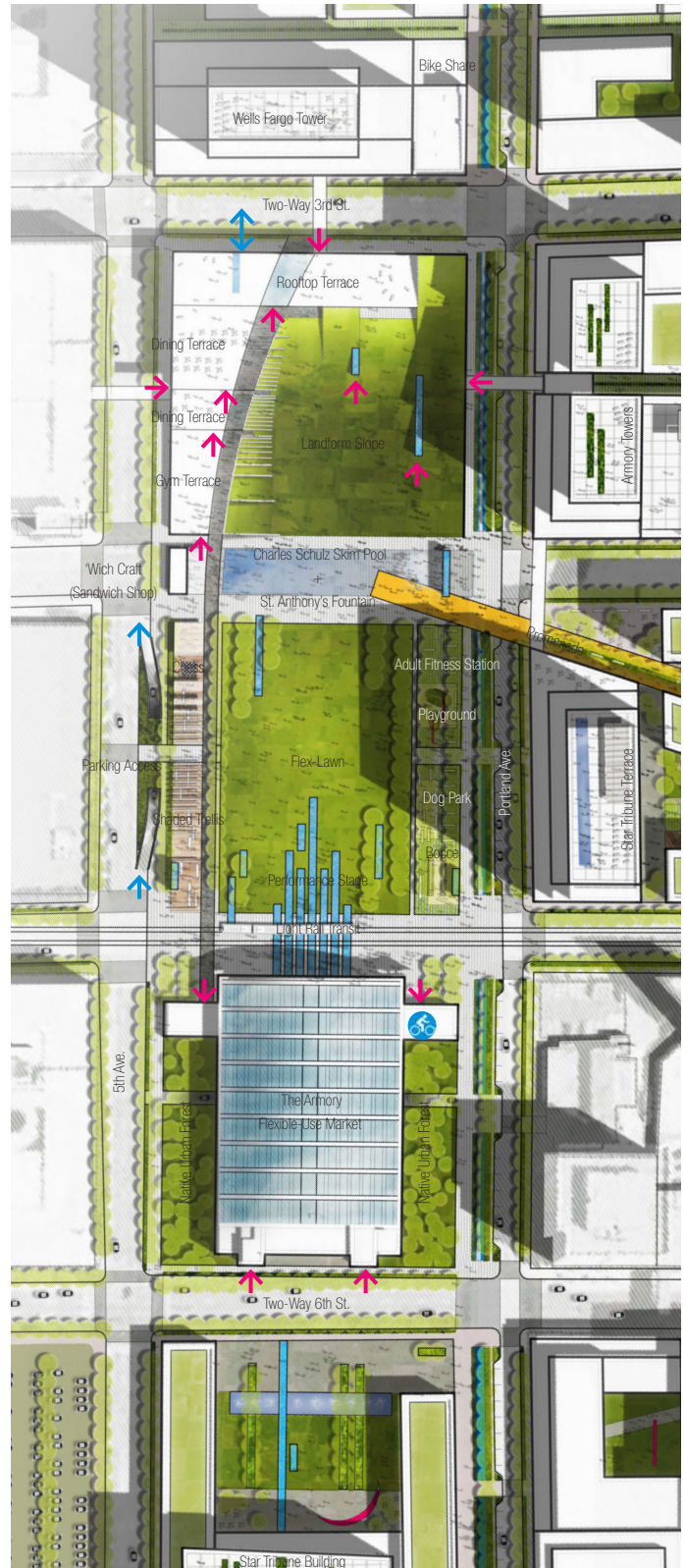
ARMORY GREEN: MINNEAPOLIS' ICONIC CIVIC OPEN SPACE

At the heart of the development is Armory Green, which serves as the first iconic open space in Downtown Minneapolis. What makes Armory Green a successful open space is a multi-functional design and a realistic development strategy.

Armory Green has three primary components: underground parking, the surface of the park, and the upward slope that creates a unique landform building, Armory Galleria. The resulting two city-block urban park is robust in its ability to function at many levels.

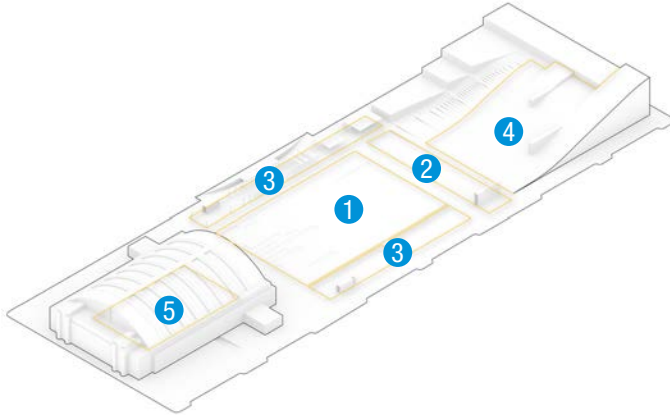
The surface of Armory Green is complex and heavily programmed, but remains flexible for a range of activities. The design allows for flexible uses from active programming to passive use. Taking cues from the design, the Armory windows extend onto the surface and become focal points within the park acting as in-grade lighting, skylights to the structures below, or access points to other spaces.

Key design elements include a centrally located skim pool that doubles as an ice rink in winter months, anchoring this skim pool is an interactive waterwall that pays homage to the nearby St. Anthony Falls; a shaded trellis with infrastructure to facilitate food vendors; the flex-lawn for active-use options that range from day-to-day recreation to large performances; and lastly, the iconic landform slope that provides seasonal space to sit, lounge, observe, and sled.



Access Point →

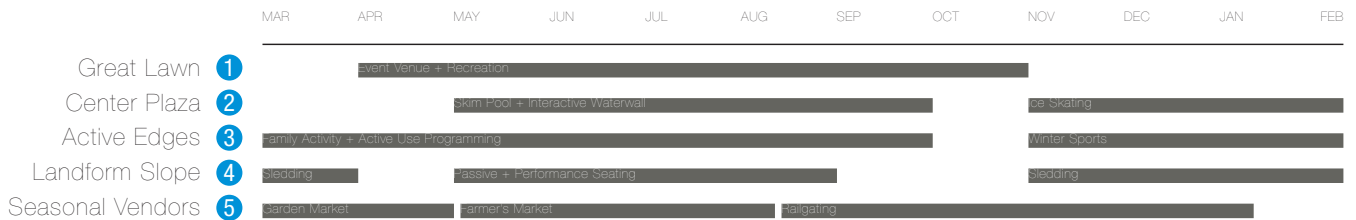
ACTIVATING THE ARMORY: MULTI-FUNCTIONAL DESIGN + STRATEGIC DEVELOPMENT PROGRAM ZONES



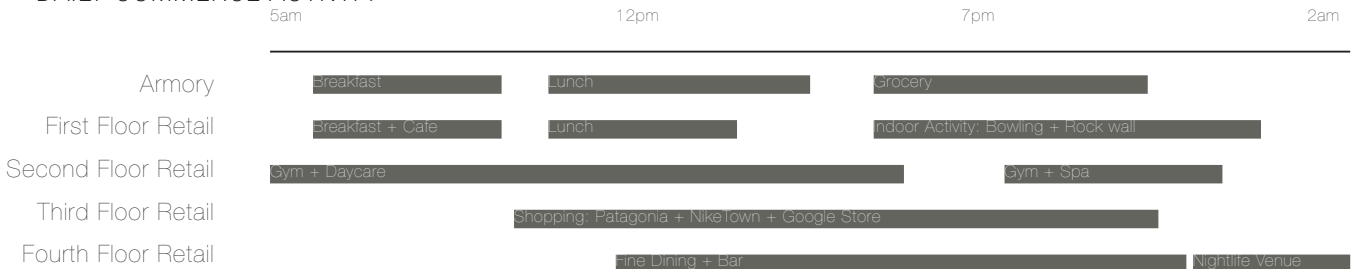
Within the program of The Armory and Armory Green is a mix of permanent and temporary vendors, seen on the third diagram. The Armory itself holds 24,500 SF of permanent specialty market retail and space for mobile booths that can be removed for special civic events such as art installations, neighborhood meetings, cooking classes, and wedding receptions. The Armory also holds a bikeshare location that is easily accessible from Portland Ave.

Armory Galleria is a vertically integrated landform with program including first floor service retail, second floor community served retail: with a gym, daycare, and health spa. The third and fourth floor retail consists primarily of fine dining, bar, and nightlife venues

YEAR-LONG RECREATION



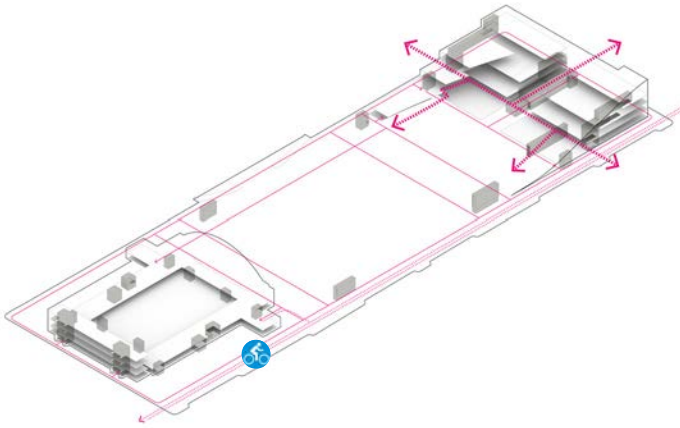
DAILY COMMERCE ACTIVITY



Left Figure 5.37 The Armory - Masterplan P2
 Top Figure 5.38 Armory Green - Program Zones
 Bottom Figure 5.39 Armory Green - Activity Flows

ACTIVATING THE ARMORY: MULTI-FUNCTIONAL DESIGN + STRATEGIC DEVELOPMENT

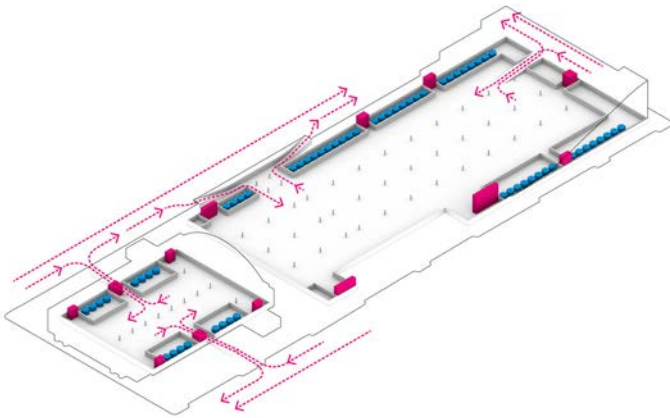
ABOVE-GROUND CIRCULATION



Armory Green is successful because of the connections that it establishes. The Skyway connects through the landform building at mid-block and serves the adjacent office and mixed-use residential. The park cleanly interfaces with the Armory itself through the closure of 5th St. to vehicular traffic with entries into the building on either side.

-  Skyway Circulation
-  Bike Circulation
-  Pedestrian Circulation
-  Bike Share

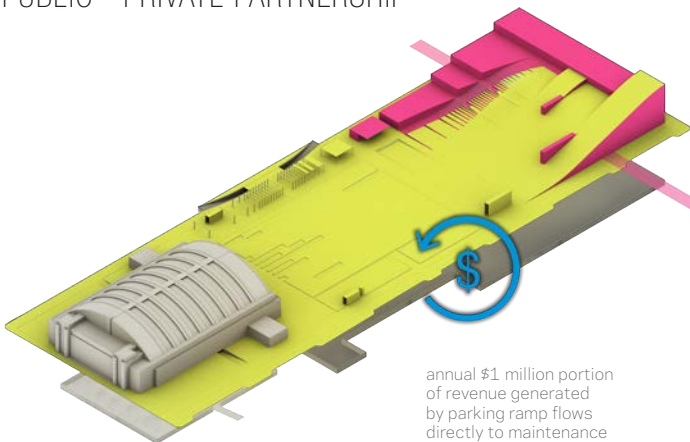
SUBTERRANEAN PARKING



Below the park is a subterranean parking structure that accommodates 500 cars with direct access to the park surface and street access at strategic locations, seen on Figure x.x. Vehicular and pedestrian circulation accommodates flows from the below-grade parking structure to the park surface, landform retail, and the skyway above.

-  Vehicular Circulation
-  Vertical Access Points
-  Storage Cisterns

PUBLIC - PRIVATE PARTNERSHIP



annual \$1 million portion of revenue generated by parking ramp flows directly to maintenance costs of armory green

Equally important to the design of this iconic open space is the development strategy behind it, Figure 5.41.

Armory Green is a public/private partnership that begins with the construction of the 500 car below-grade parking ramp that the city builds per the competition brief. As the developers, we solely finance the construction of the landform retail and renovation of the Armory and retain the ownership of the entire park. The city would donate the right of way of 4th Street and finance the

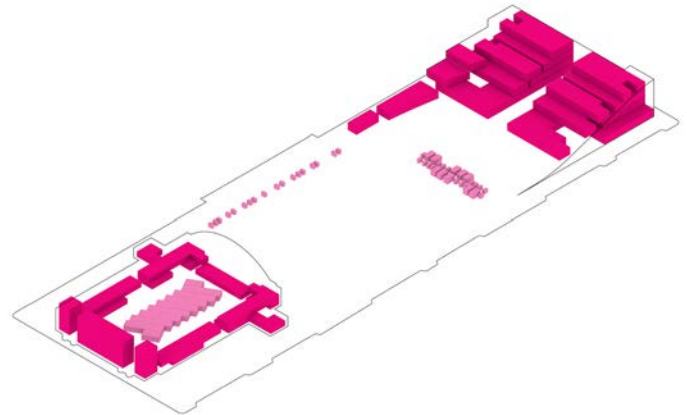
-  Armory Galleria
-  Armory Green Surface
-  Armory Green Parking Ramp
-  Renovated Armory Building

construction of the park. The Friends of the Armory or another non-profit entity, would be formed that manages the finances, maintenance, and special events of the park. An annual one million dollar portion of parking revenue from the parking ramp would flow directly to the non-profit entity to support maintenance costs of the park.

Combined with its design and development, Armory Green becomes an asset through its enhancement of the development, downtown, and the city. Providing spaces for Downtown office workers to enjoy scenic dining, Elliot Park and Mill District residents to recreate, Viking fanatics to rally, and art enthusiasts to gather, Armory Green positively effects the people of Minneapolis at many scales.

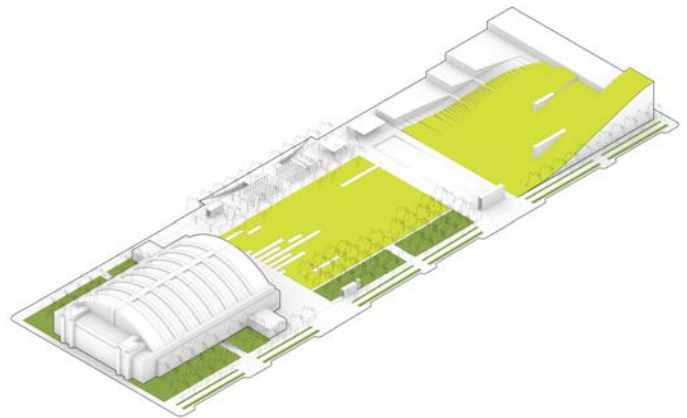
Again, what makes Armory Green successful is its multi-functional design and a strategic development plan. With their claim of having one of the greatest park systems in the country, this is a park that the entire Minneapolis/St. Paul region will strongly identify with and take pride in.

VERTICALLY INTEGRATED COMMERCE



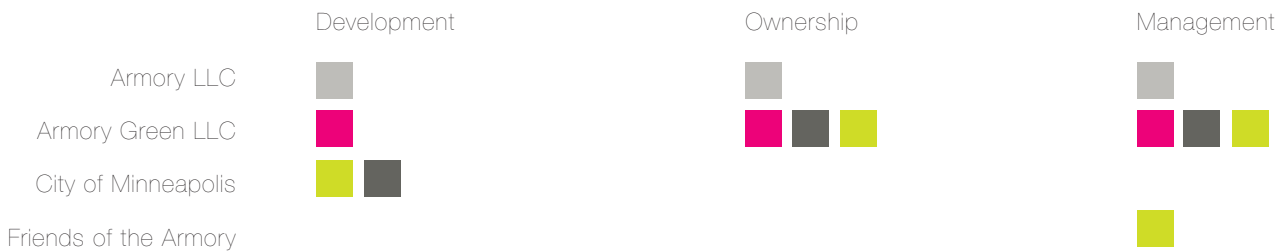
Permanent Retail
Seasonal Vendors

PARK SURFACE BENEFITS



High-Amenity Surface Lawn
Low-Maintenance Vegetation

PRIVATE-PUBLIC PARTNERSHIP



Left + Right Figure 5.40 Armory Green - Tectonics

Above Figure 5.41 Armory Green - Public-Private Partnership

IT'S ABOUT THE PEOPLE...

The Armory is a place. It is a district that celebrates the rich history of Minneapolis, its distinct culture, and leads Downtown East into a dynamic future. Above all, The Armory is about the people.

It's about Dusty picking up groceries at the Armory on his bikeride home down Portland Avenue from his internship at the Star Tribune.

It's about Dave & Michael enjoying the holiday season at Armory Green.

DUSTY



- Lives in Dinkytown
- Rides bike to internship at Star Tribune
- Uses Portland Ave. as main route

DAVE + MICHAEL



- Live in Mill District
- Walks or rides bicycle to work Downtown
- Takes LRT to work in St. Paul

DON + ASHLEY



- Lives in senior community
- Walks daily to Armory Green via Portland Ave. for fitness class
- Takes LRT to visit granddaughter

JASON + WENDY



- Live in suburbs
- Takes transit to Vikings games
- Prefers LRT to dealing with parking
- Considering move to Downtown after children go to college

It's about Amoon receiving a text from her friend saying "meet me at Armory Green" and walking from work at the government center to grab lunch.

It's about Jason and Wendy pouring out of the Vikings stadium towards the railgating tents after a victory over the Packers.

It's about Don picking tomatoes on the roof garden at East Village Senior Living with his granddaughter, Ashley on a sunny afternoon.

And it's about Bruce and Sara enjoying a glass of wine overlooking the Minnesota Orchestra during a Sommerfest performance on the lawn.

BRUCE + SARA



- Live at Armory Towers
- Empty nesters
- Walk to work in Downtown via Skyway
- Parks car in convenient ramp at residence

AMOON



- Lives in suburbs
- Takes LRT to work Downtown on Central Corridor Line
- Owned a car before LRT came to her neighborhood

CAI



- Lives in affordable housing on Washington Ave.
- Walks or bikes to work at hospital
- Drives to community college classes

ELIJAH



- Lives in affordable housing at Portland South Apartments
- Takes LRT to work at the airport
- Walks to get groceries

Above Figure 5.42 The Armory - Demographic Character Profiles P2

Following Figure 5.43 Sommerfest Performance By The Minnesota Orchestra At Armory Green

Following Figure 5.44 Team 1155 with Gerald Hines





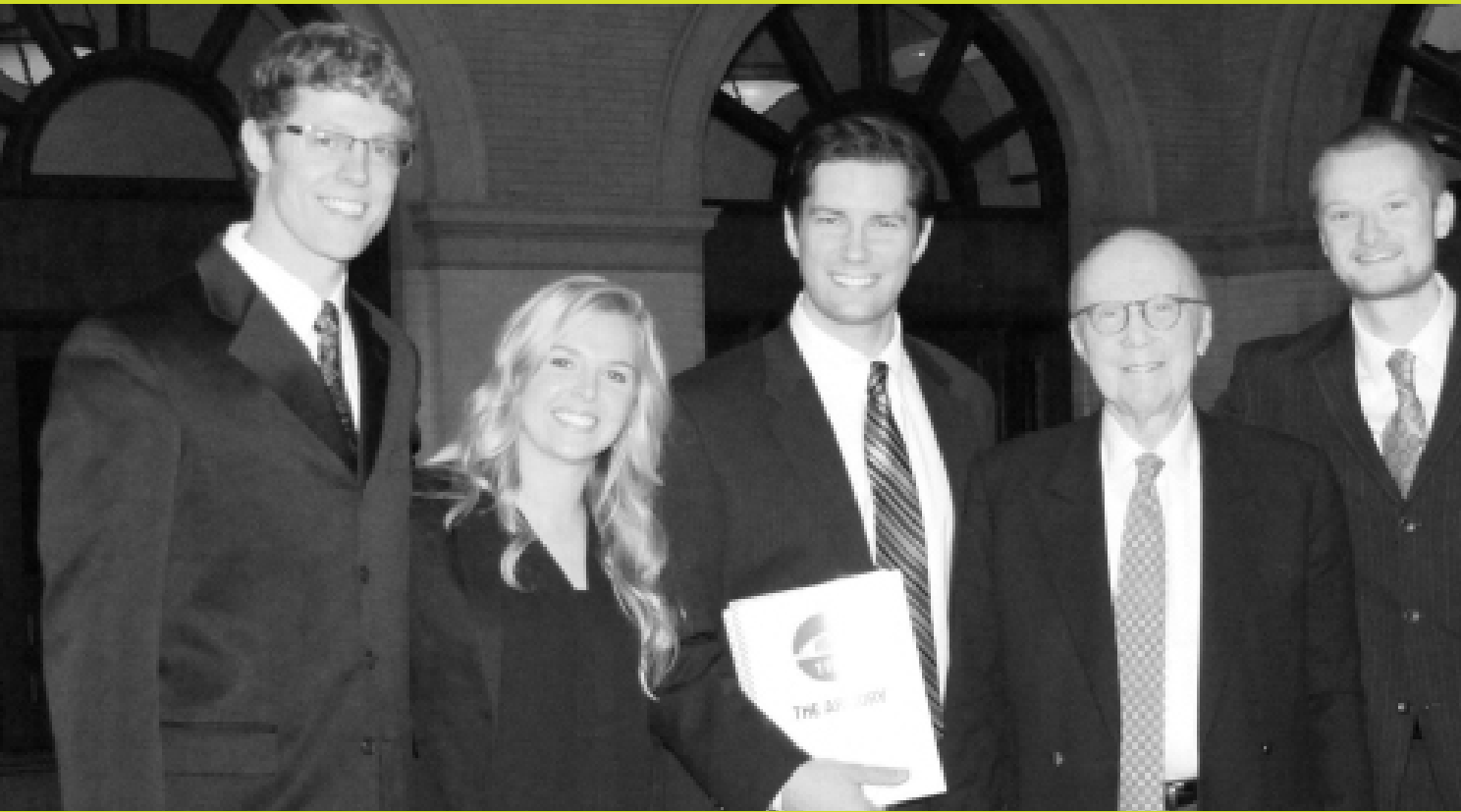
WOOD CRAFT

WOOD CRAFT

LIFETIME FITNESS

WATAGONIA

THE ARMOY



CHAMPIONS



Team 1155 arrived in Minneapolis on April 10th, three hours before the mock jury presentation. Fed Ex had successfully delivered the final boards unblemished and the countless rehearsals and critique of our peers seemingly paid off.

The following morning, each team leader randomly selected the order of final presentations from the draw of a hat. The first proposal the competition jury witnessed that morning was "The Armory." Despite technical difficulties, Team 1155 delivered a "superb presentation" and fielded each question in stride.

Once all proposals had been presented, the jury deliberated on which team conveyed the strongest sense of collaboration and most inspiring, yet feasible proposal. Gathering in the main hall, the jury provided praise and critique to each team before announcing the winner. Team 1155's "The Armory" was chosen as the strongest proposal out of the four finalists and crowned victor of the 2013 Gerald D. Hines Student Urban Design Competition.

CONCLUSION

Armory Green proved successful. The jury appreciated the collaboration displayed between three different schools and were taken by the assortment of ideas, but most importantly it was the design of Armory Green that captured their decision. "The big difference was the bold and exciting vision for the park," said Stuart Ackerberg, 2013 ULI Jury Member and CEO of The Ackerberg Group, "...there was a great public amenity that they were suggesting - a large two-block city park that sat on top of a parking structure. It was an extremely cool and big ah-ha idea" (Black, Minneapolis/St. Paul Business Journal, 2013).

06 FINDINGS

INTRODUCTION

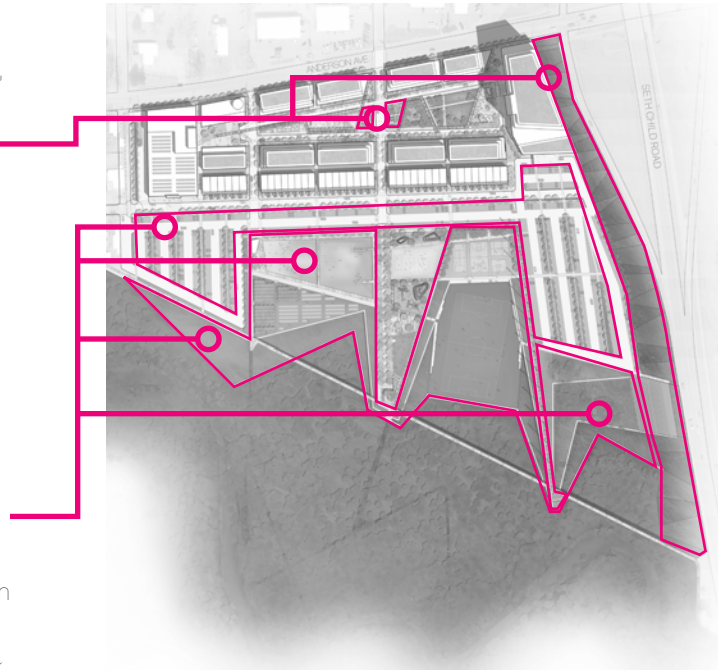
The research questions are answered and explained through the analysis of each CenterScape project. These conclusions are synthesized and summed into statement findings. The third component to CenterScapes' conclusions explains limitations of research and possibilities of future research.

RESEARCH QUESTION 1

HOW CAN LANDSCAPE AS INFRASTRUCTURE ENHANCE GREYFIELD-REDEVELOPMENT-INTO-TOWN-CENTER PROJECTS?

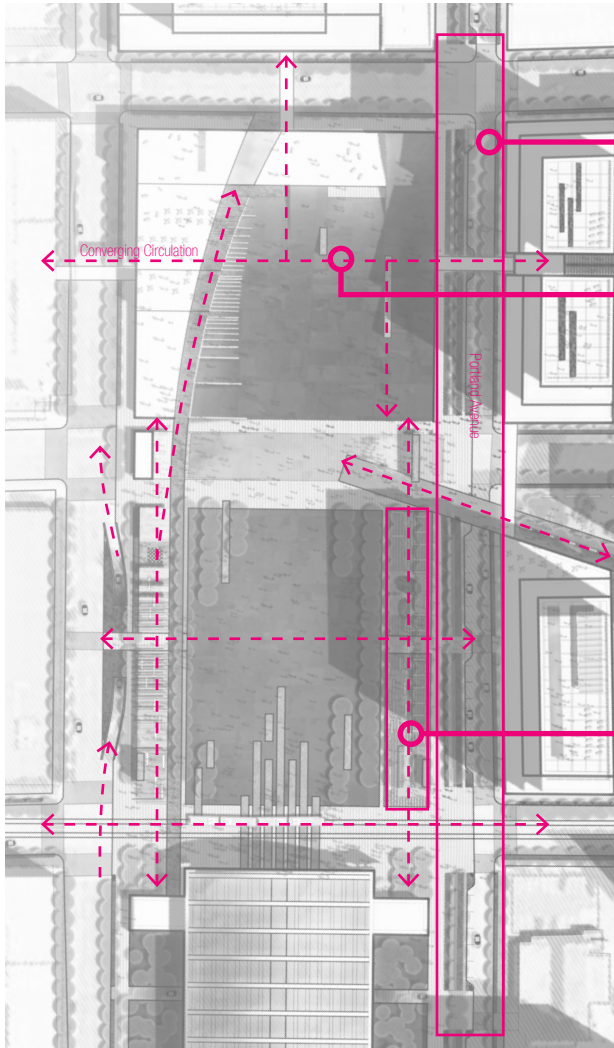
Within Briarcliffe Village is two significant open space designs that act as the centerpiece for the development, Briarcliffe Square and Briarcliffe Park.

- Briarcliffe Square includes several pieces of green infrastructure. Along Seth Childs Road are xeriscaped berms to provide aesthetic and sustainable qualities. Within the square is centrally located retention gardens that act as entrance features and bmps for stormwater run-off. The placement of these gardens not only provides an aesthetic entry to the site, but also replaces streetside bmps to facilitate seamless movement from storefront to storefront.
- Briarcliffe Village replaces the surface parking lots with permeable grasscrete within surface parking areas. Briarcliffe Park utilizes cleansing systems such as natural biopools, retention basins, and terraced wetlands. The entire concept behind Briarcliffe Park is to restore the original function of the floodplain and abstracts in a contemporary fashion that allows for flooding onto the terraces, protection for the inhabited development on-site, and human interaction of the existing riparian corridor.



Above Figure 6.1 Briarcliffe Village - RQ1 Diagram

Right Figure 6.2 The Armory - RQ1 Diagram

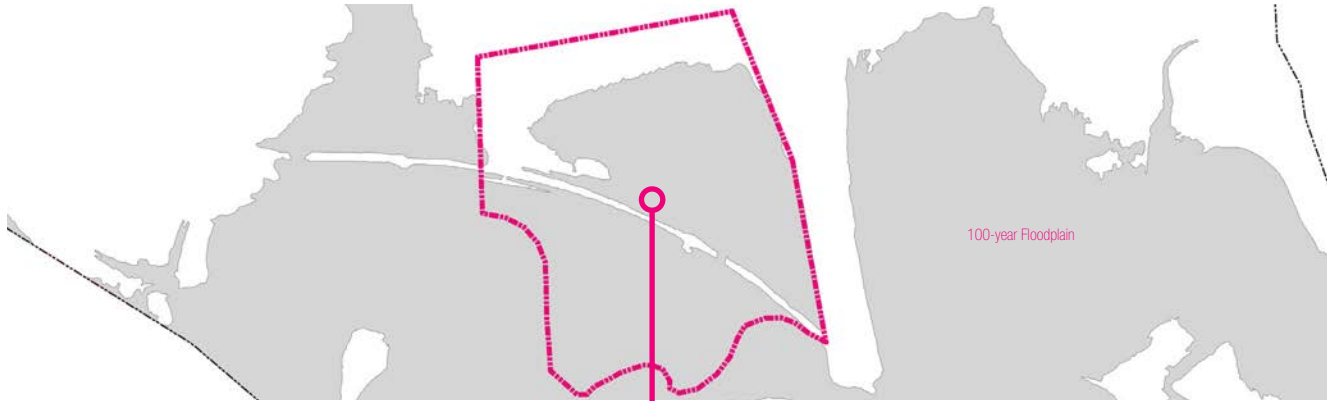


A couple of key landscape infrastructural components are integrated within The Armory proposal, Portland Avenue and Armory Green.

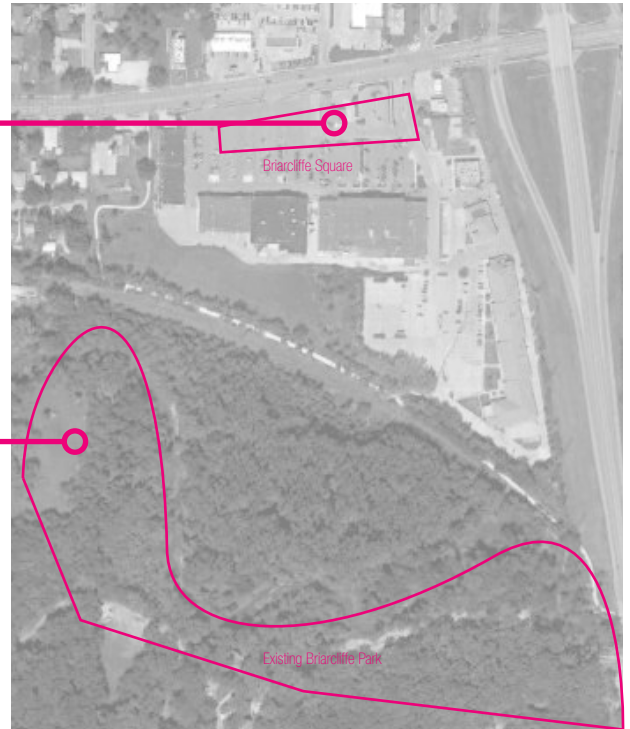
- Portland Avenue provides thorough mitigation of stormwater through the use of bmps, silva cell integration, and permeable pavement on-street parking.
- Armory Green is designed in a way that creates a multi-layered piece of infrastructure. Incorporating one of the most important and unique pedestrian pieces of infrastructure signature to Minneapolis, the Skyway system connects into the hill creating an entirely new commercial and recreational experience for the city. By designing the circulation to facilitate movement between Armory Galleria, Armory Green, the Skyway, the below-grade parking, the repurposed Armory building, and the surrounding development, Armory Green is established as a way of convergence. Providing a new interaction of circulation, commerce, and recreation; Armory Green mediates between all these experiences in an iconic way.
- Integrated within Armory Green is a host of sustainable practices from storage cisterns used for irrigation to the use of permeable paving to the designation of native plant material within and along the edges of the park.

RESEARCH QUESTION 2

ADDRESSING MULTIPLE SCALES, HOW CAN SURFACE PARKING LOTS BE STRATEGICALLY ALLOCATED AND REPURPOSED AS VIABLE OPEN SPACE?

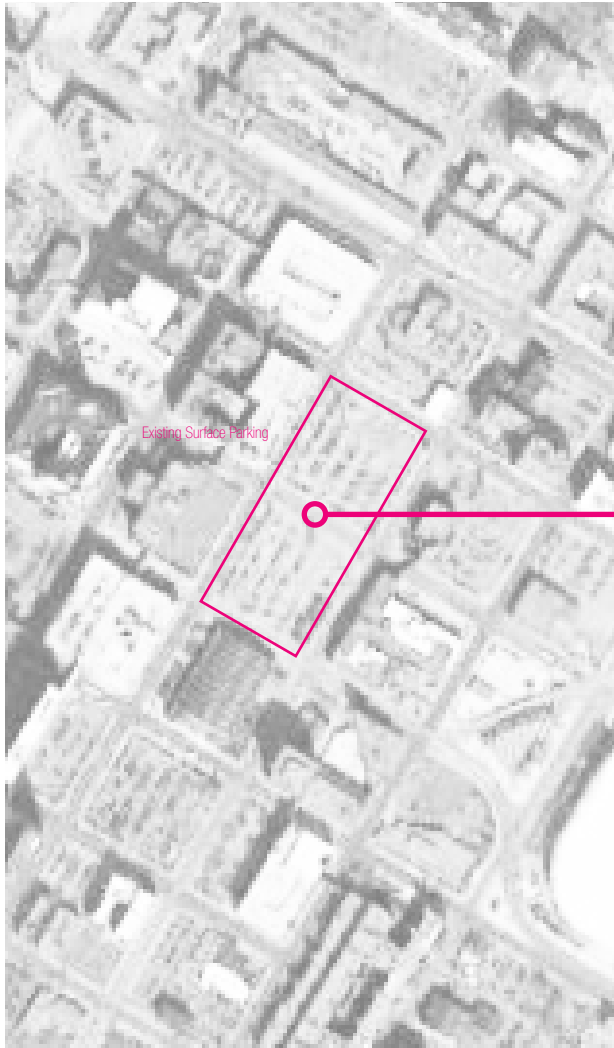
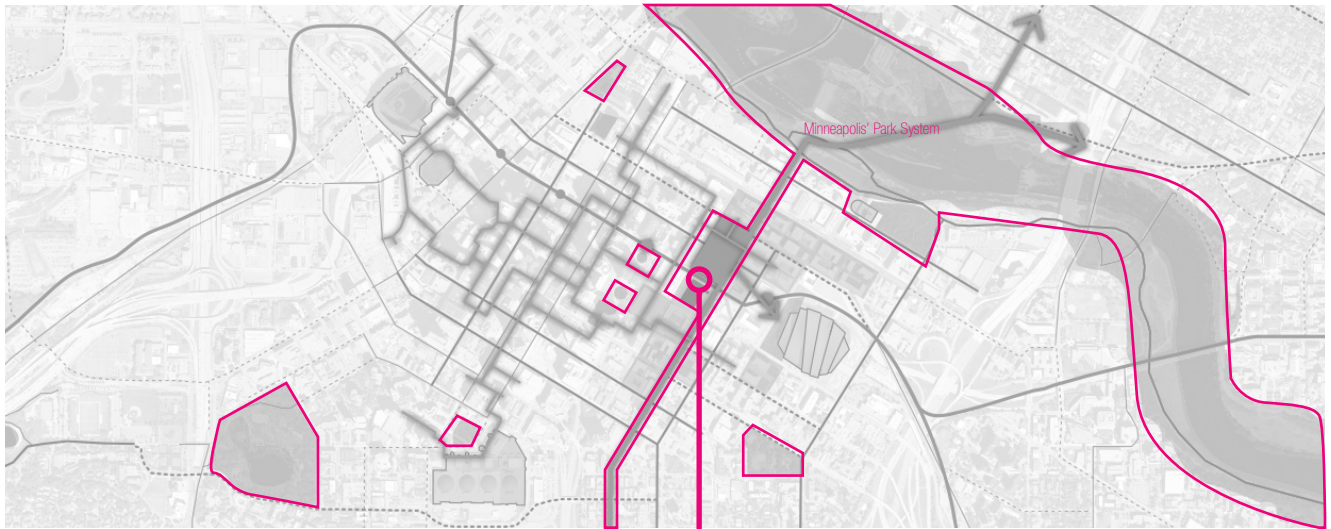


- At the regional scale, 70% of the Briarcliffe Village site is within the 100 year floodplain, reclaiming the floodplain for green infrastructure, programmed open space, and reforestation is one way to allocate open space.
- Looking at the site scale, surface parking that possesses the ability of enclosure within buildings is a key way to inform the placement of open space to ensure interior-exterior programming that activates the development and promotes a healthy public realm.
- For the city scale, Briarcliffe Park is an existing park located south of Wildcat Creek-currently an underutilized riparian corridor- Briarcliffe Village proposes to extend this park space, establishing useable park space for the city.



Above Figure 6.3 Briarcliffe Village - RQ2 Diagrams

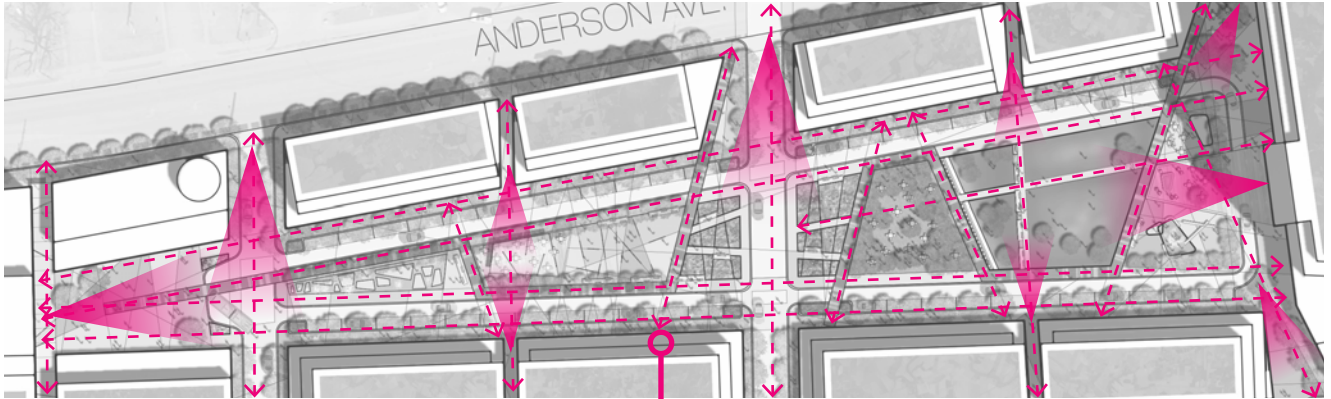
Right Figure 6.4 The Armory - RQ2 Diagrams



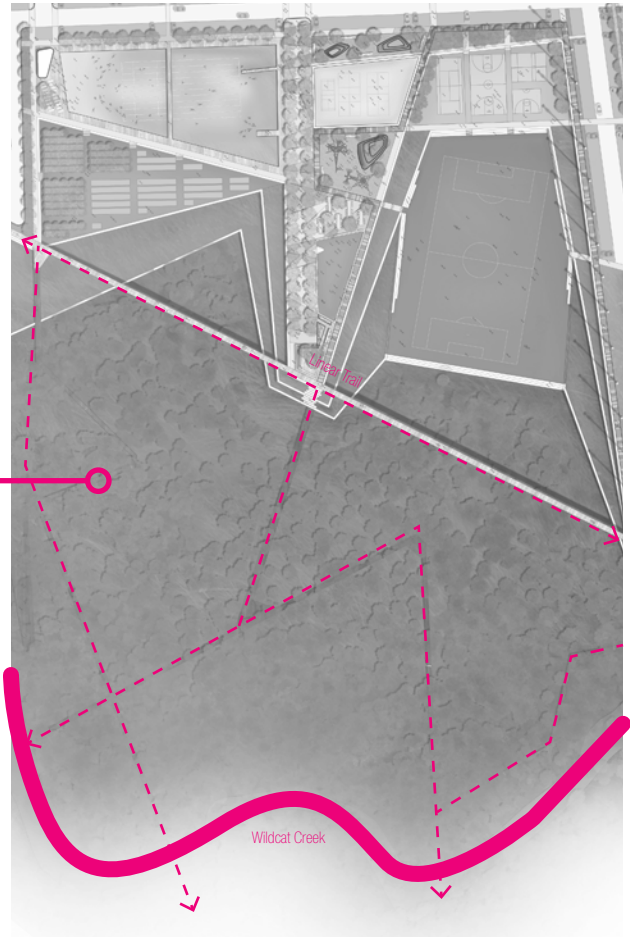
- The Armory addresses the regional scale by building off of one of the nation's best parks and trails systems. Although, this is a strength Minneapolis' prides itself on, Downtown Minneapolis lacks functional green open space. The Armory connects to the existing park system and bridges the gap between the downtown and its adjacent neighborhoods.
- At the city scale, Minneapolis looks to establish itself as a mid-sized metropolitan city where the downtown is a livable community. To achieve this, the Armory integrates multiple open spaces, with the primary open space, Armory Green, located on two city-blocks of surface parking. This allows for a proportionately sized city park that provides Minneapolis the urban civic space it desperately needs.
- Looking at the site scale, the surface parking selected for Armory Green is chosen based on two criteria: it's adjacency to a historical structure and its capacity to be enclosed within buildings. By latching the allocated open space to the historical Armory structure, design opportunities are formed that build off the nationally registered city relic. The ability to leverage this multi-functional open space lends itself to being centrally located within the development as well.

RESEARCH QUESTION 3

HOW CAN THIS STRATEGICALLY ALLOCATED OPEN SPACE(S) BE DESIGNED IN WAYS WHERE THEY ARE CRITICAL TO THE DEVELOPMENT PROPOSAL AND ITS PUBLIC REALM?

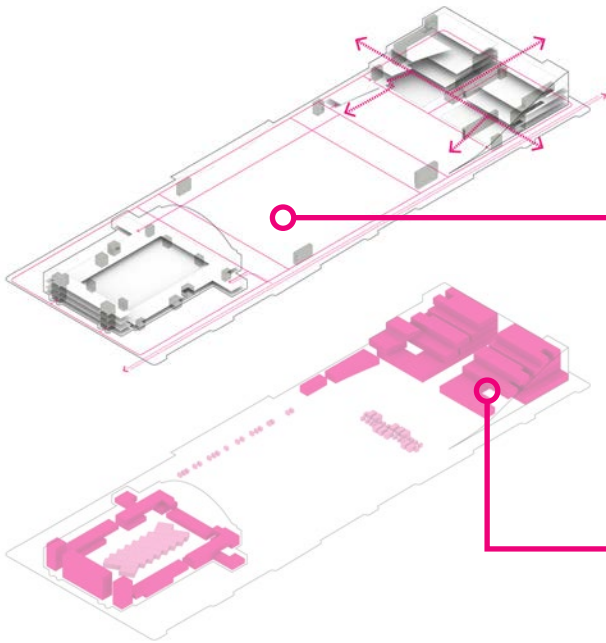
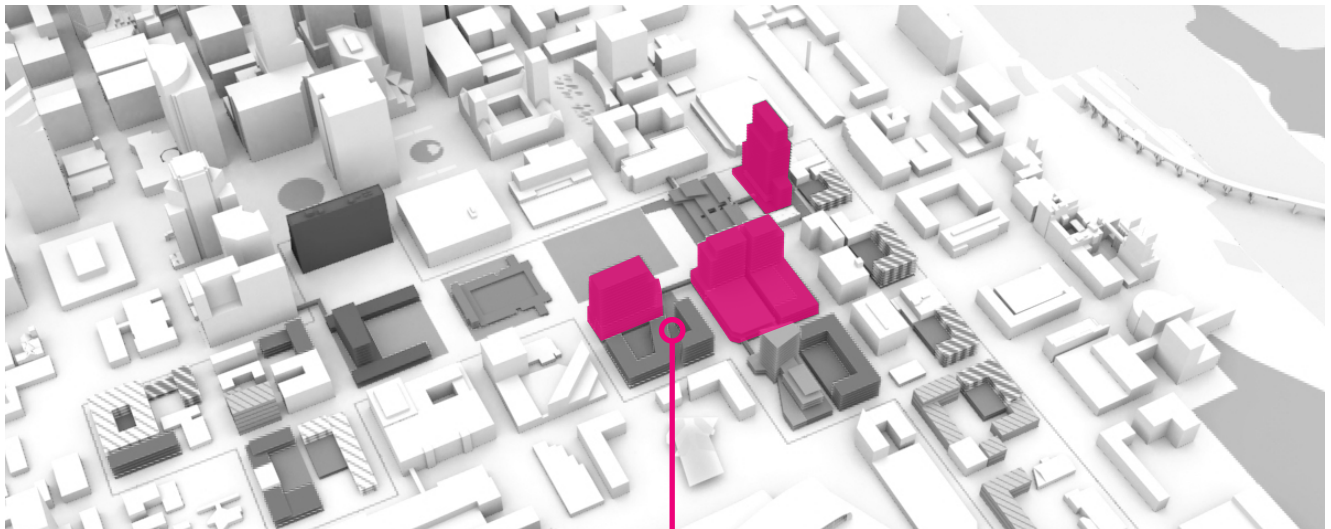


- Briarcliffe Village's open spaces are designed in a way to encourage movement into, through, and out of the site. Programming of these spaces provide ample experiences for active and passive uses and even absorb large flows for special events. What makes this proposal so attractive is that Manhattan lacks a mixed-use community experience with pedestrian oriented open space.
- Briarcliffe Square is a viable strategically allocated open space because of its central location and its capacity to facilitate movement, create sightlines, and encourage lingering within the site.
- Not only is Briarcliffe Park critical to the development due to its' ability to mitigate current flooding issues, but it establishes and incorporates existing amenities into the site development. Connecting to the larger linear trail provides opportunities for inhabitants and visitors alike to experience the development alongside the recreational amenities. In addition, the development reveals Wildcat Creek as a community amenity by providing physical and visual connections.
- What is most important about the design of these spaces is that there is a mix of adjacent uses that insures a mix of users. By integrating commercial, recreational, and residential activity at one intersection, the development mimics a successful public realm often found within town centers.

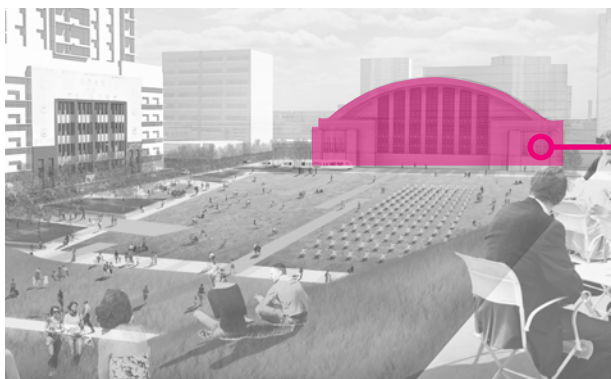


Above Figure 6.5 Briarcliffe Village - RQ3 Diagrams

Right Figure 6.6 The Armory - RQ3 Diagrams



- Armory Green is designed in a way that draws from existing infrastructure, historical buildings, market demands, city initiatives, and captures the value it creates utilizing an iconic landmark park/building.
- Utilizing desire lines creates strategic circulation for vehicles into and around the site, pedestrians vertically and horizontally throughout the site into the Skyway system, biking along portland avenue, and visitor circulation that links the Vikings Stadium and the LRT Station through our development to Armory Green allows for continuous flows of activity.
- Programming the park in ways that facilitate 24-hour use by the everyday community and special events of the city, such as large outdoor performances.
- The vertical program of Armory Galleria captures value created from the park and the views to the downtown.
- Enclosing Armory Green not only allows for higher, denser buildings on site, but it increases economic value from sales premiums charged on these buildings.
- Establish the underutilized Armory structure as an anchor for development latched to highly-designed open space.
- What makes Armory Green successful is the private-public partnership established by the city-funded parking structure.



PRIMARY RESEARCH QUESTION

HOW CAN PRIMARY OPEN SPACE PROVIDED BY LANDSCAPE ARCHITECTURE CATALYZE NEW TOWN CENTERS?

- By allocating certain existing open space within the site that is strategically placed and designed within the center of the site in ways that create a unique and enduring public realm. In addition, the design must assist in the programming of the site by designing spaces that correspond with the interior building program.
- Utilizing ecological processes to inform the site placement, informing planners, architects, and developers to develop inhabitable buildings outside of ecological preserves such as floodplains. Once these open spaces have been allocated, they should be designed in ways that provide access to existing amenities as well as build new amenities that promotes diverse users.
- By designing open space in a way that inspires not only the developers, but to all possible stakeholders: future residents, nearby communities, the city and the greater region.
- Armory Green is a corroboratively allocated primary open space that is focused purely on creating an unique and valuable public realm that establishes place and catalyzes the rest of development. Landscape Architecture provided the necessary vision of creating a park that acts as Downtown Minneapolis' first iconic open space.
- This primary open space was feasible through its ability to retain its' original vehicular parking function, and yet add multiple other uses into one space: commerce, recreation, and special venues.

LIMITATIONS + FUTURE RESEARCH

Primary limitations of CenterScapes revolve around the two-explorative design projects and the limited time span required for each project. The ULI Competition project and the Manhattan Village Plaza Project each had their respective timelines and constraints beyond independent control.

Other limits of the research revolve around the basic capabilities and personal experience based on such projects. Having done multiple urban design projects, only one of these projects was considered multi-disciplinary, having collaborated with architecture students. Personal capabilities revolve around basic design approaches, site analysis, sketching, creative thought, and team management/leadership. Working within the realm of financial feasibility and economics, personal experience lacks necessary depth.

Pertaining to the methodology, multi-disciplinary teams, through the literature, are sometimes referring to the typical four design disciplines—architecture, landscape architecture, urban designers, and planners—but in this instance to fully explore the role of landscape architecture that would require a more broad spectrum of professions. Besides input of planners, architects, landscape architects, and real estate professionals, the explorative design teams lack other professional input from professionals of engineering, art, policy, and

ecologists. This is a significant boundary within the research that may or may not provide thorough insight to the research question:

How can primary open space provided by landscape architecture catalyze landscape architecture?

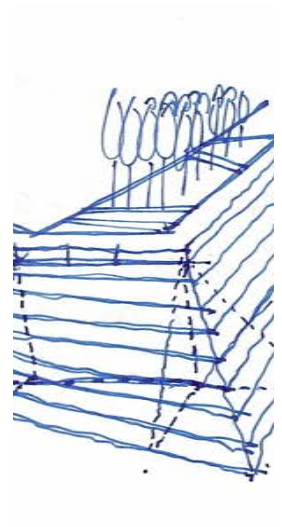
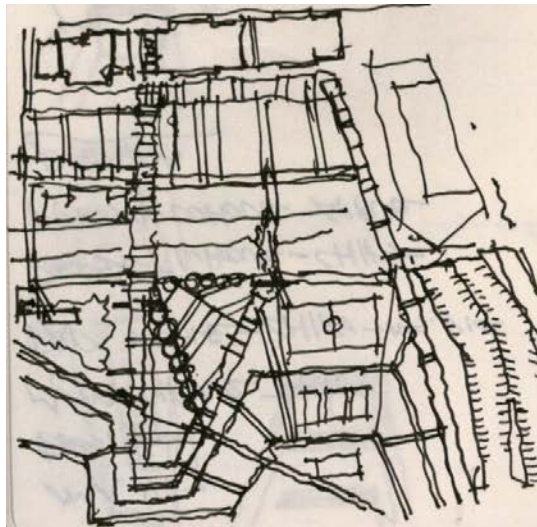
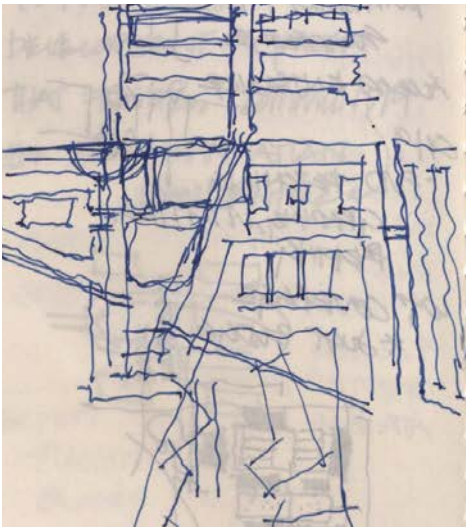
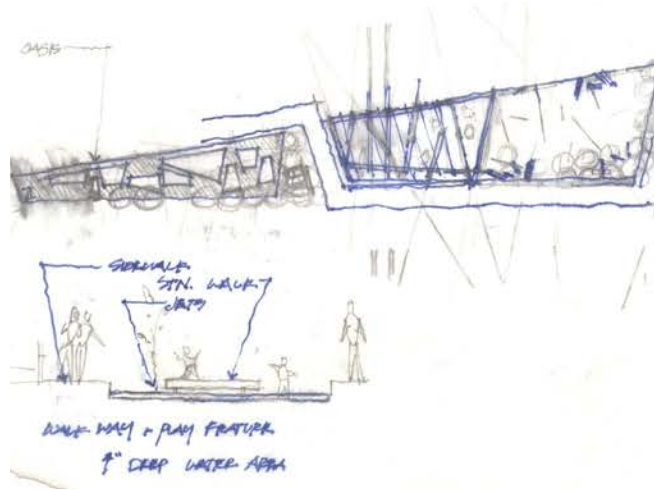
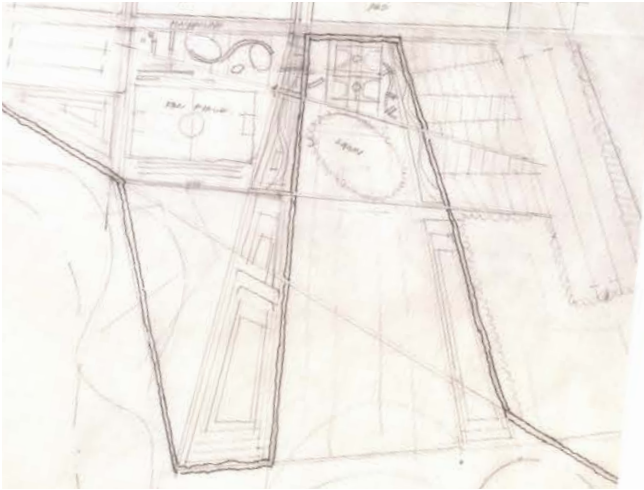
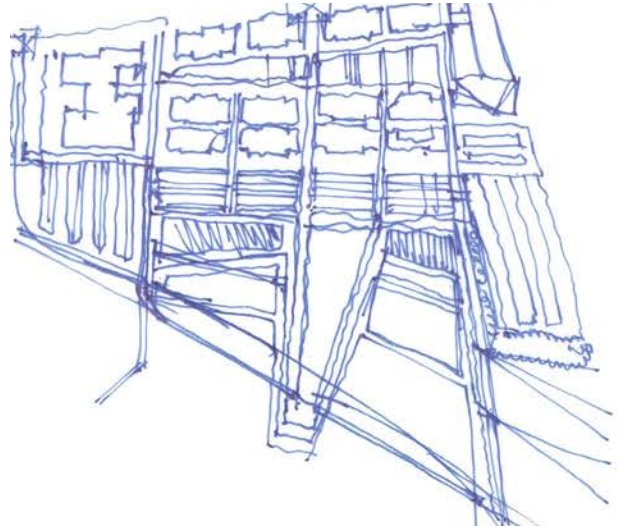
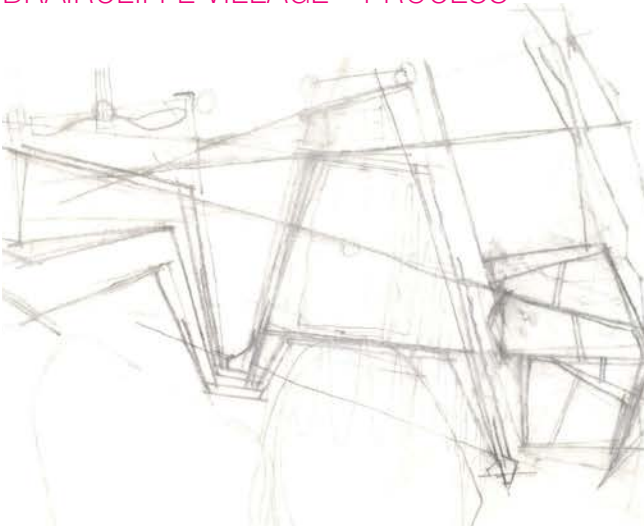
One last limitation of the research is that both explorative design projects were hypothetical and have little possibility of being considered for construction. Thus, the success of these open spaces is based purely on its acceptance and praise from the stakeholders involved.

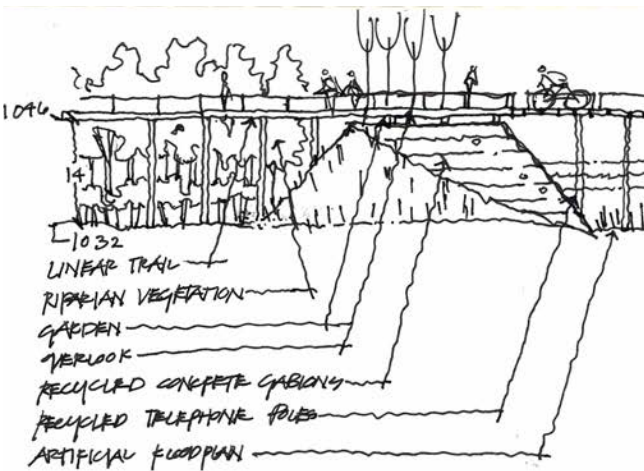
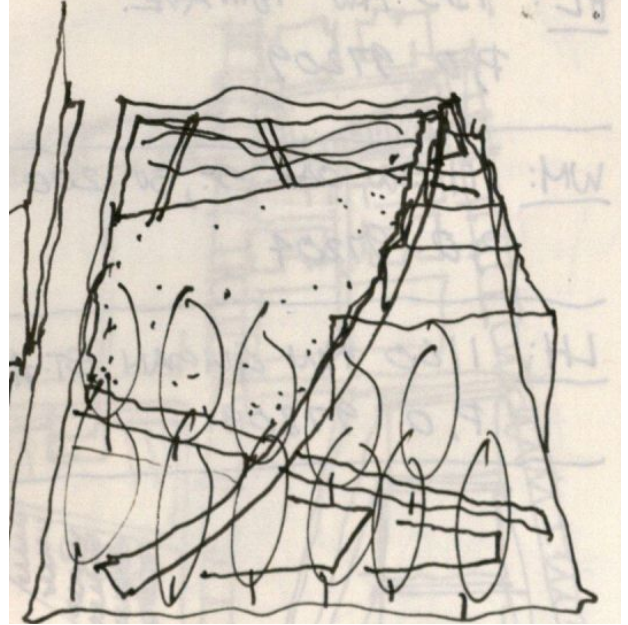
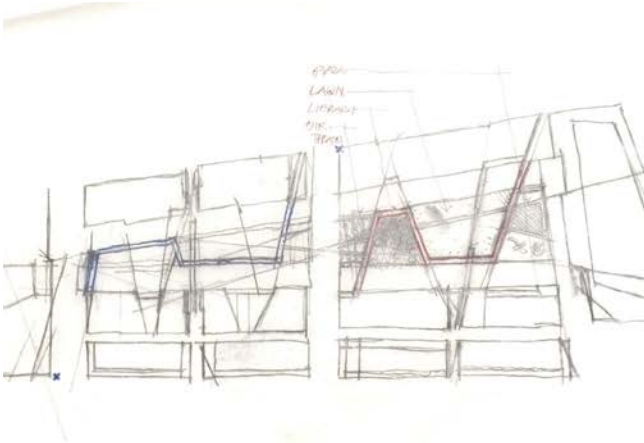
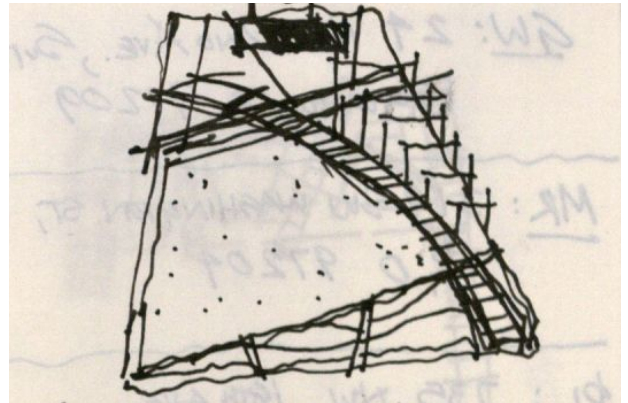
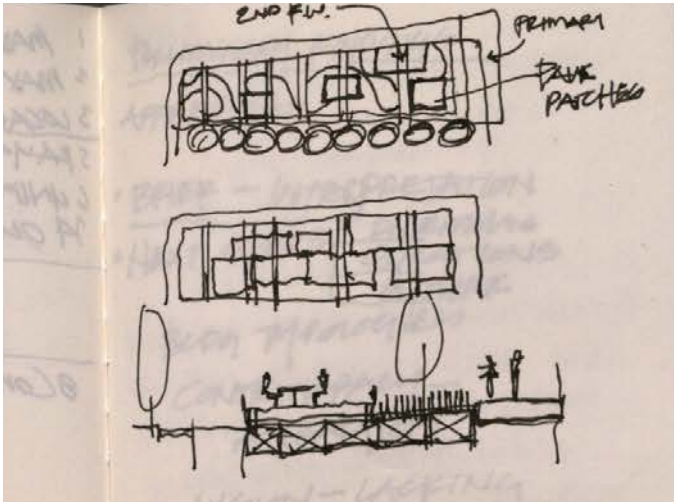
Possible future research would be to test these findings on greyfield redevelopment projects in a reality based setting. Additional research that could be performed would be trying a CenterScapes approach to new sites with different contexts and conditions. The ULI Hines Student Competition would be acceptable testing ground for these ideas in future years.

Landscape Architecture is transfixed on creating open space and human interaction with such and CenterScapes is testament to such beliefs. Catalyzing open space, if strategically allocated and designed, can prove to be highly successful in the multi-disciplinary realm of urban design and in the creation of new town centers.

07 APPENDIX

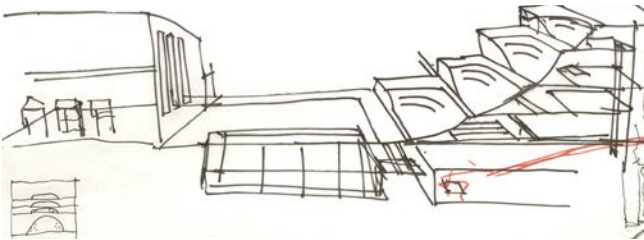
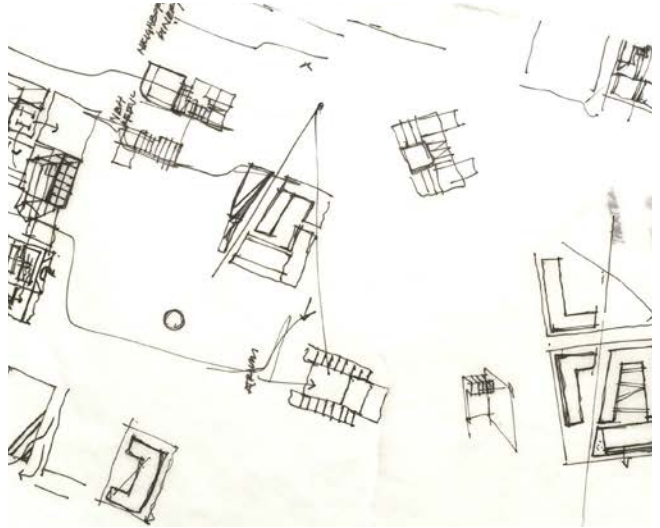
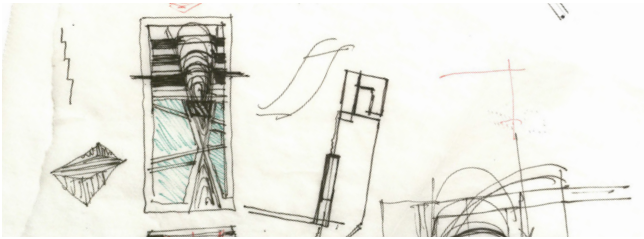
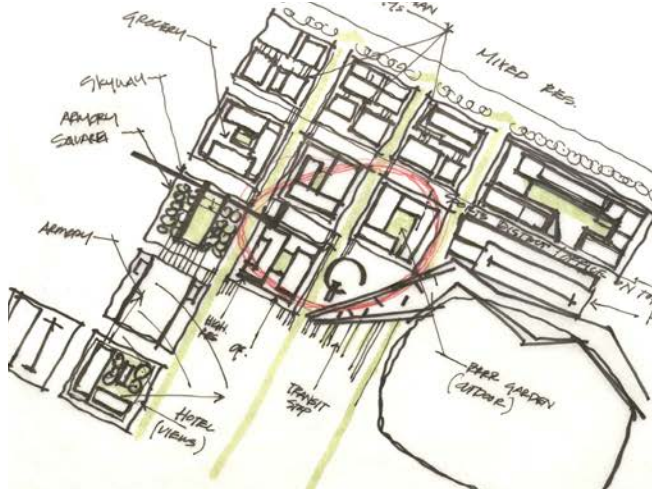
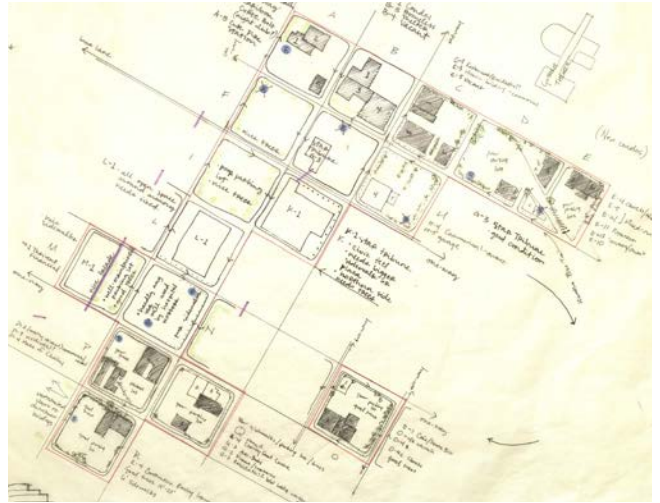
BRAIRCLIFFE VILLAGE - PROCESS

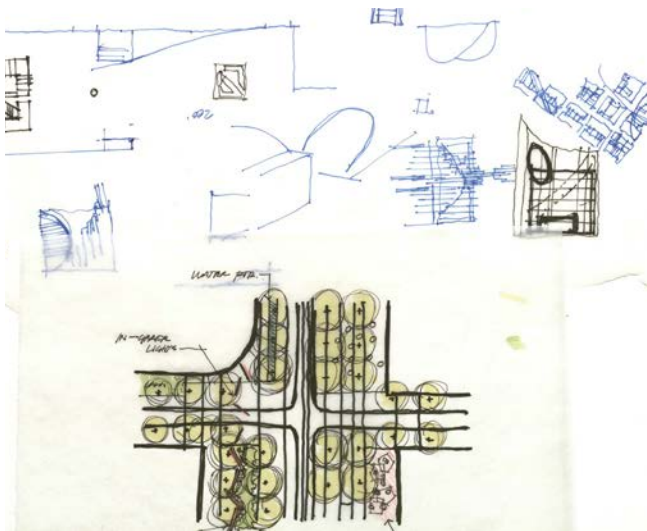
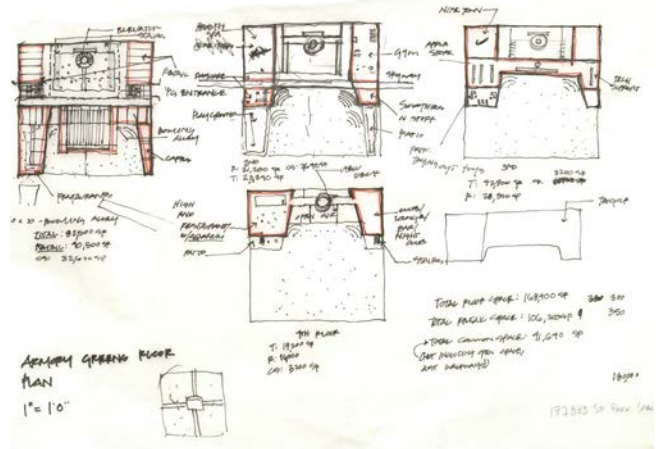
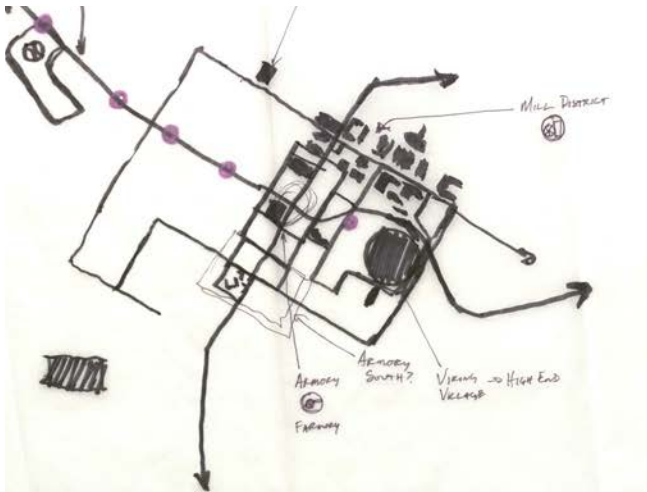
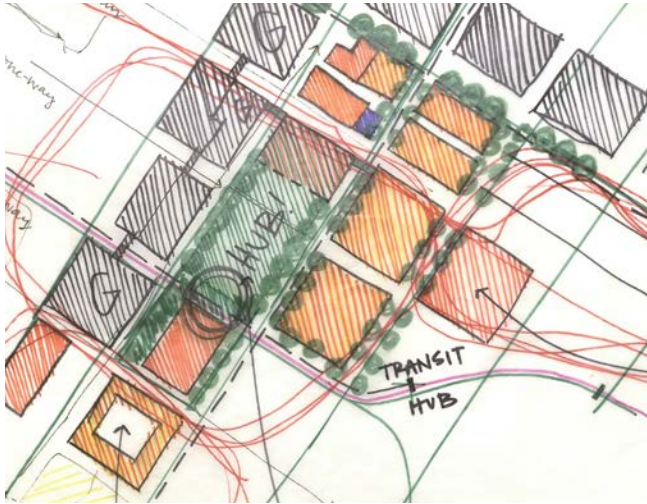




All Figure 7.1 Briarcliffe Village - Process

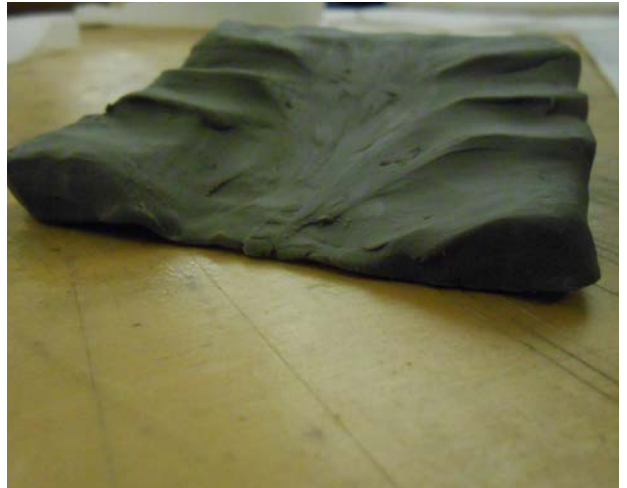
THE ARMORY - PROCESS



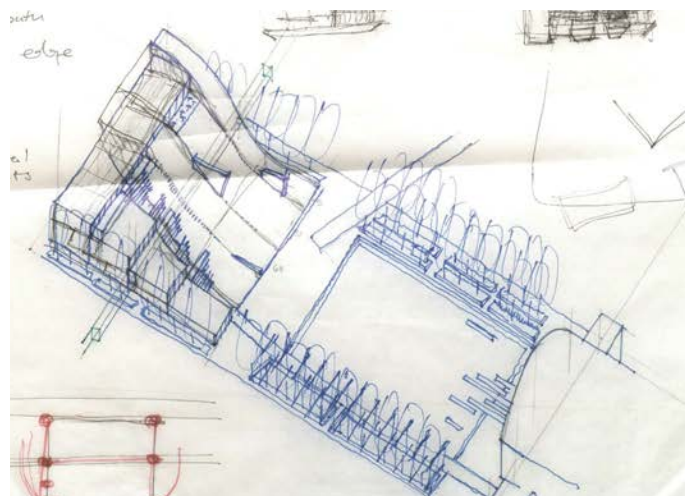
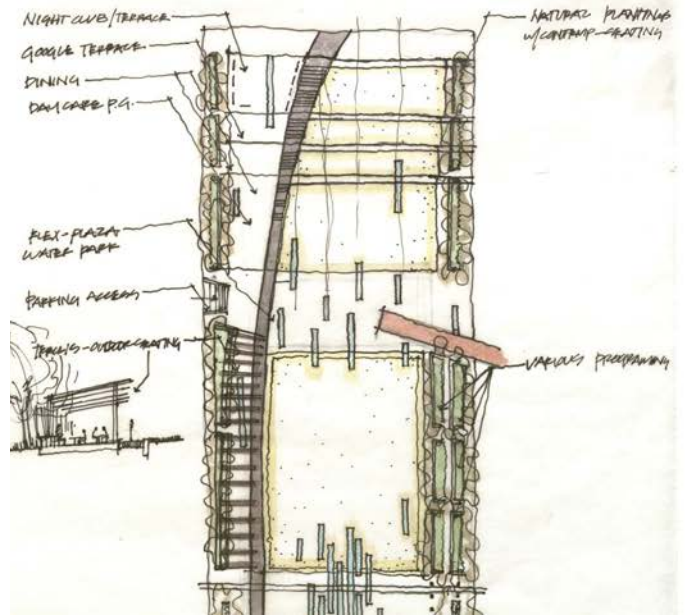
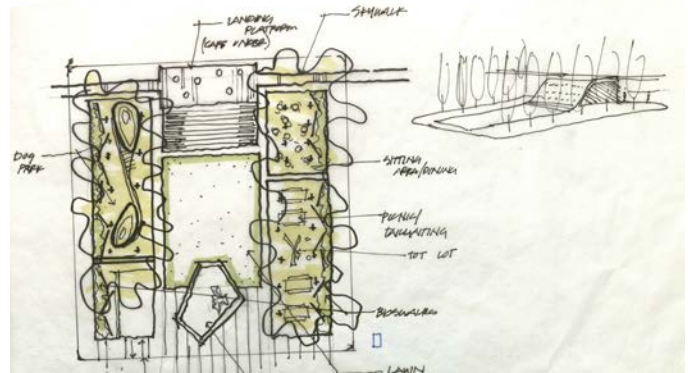
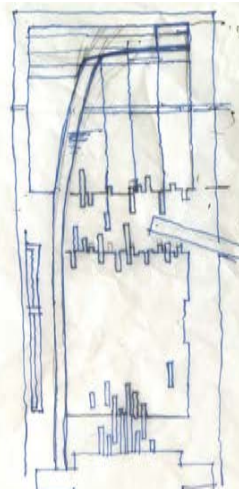
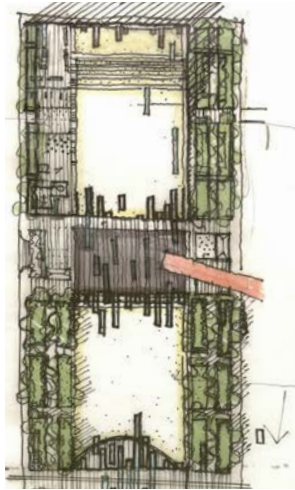
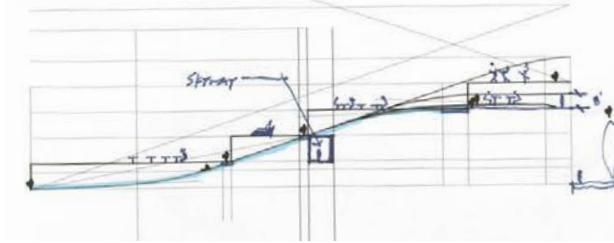


All Figure 7.2 The Armory - Process

ARMORY GREEN-MODELING PROCESS



ARMORY GREEN-DESIGN PROCESS



Left Page Figure 7.3 Armory Green - Modeling Process
 Right Page Figure 7.4 Armory Green - Design Process

GLOSSARY

Agricultural Urbanism: Is the integration of farms and gardens of varying scales (including shared gardens, farmer's markets, and agricultural processing) into a walkable development (Langdon, 2009).

Biophilia: The name given to the human love of nature based on an intrinsic interdependence between humans and other living systems (Farr, 2009).

Blight: Physical and economic conditions within an area that cause a reduction or lack of proper utilization of that area. A blighted area is one that has deteriorated or has been arrested in its development by physical, economic, or social forces (Farr, 2009).

BMP: Best management practice refers to the practice considered most effective to achieve a specific desired result for protection of water, air, and land and to control the release of toxins (Farr, 2009).

Character: The image and perception of a community as defined by its built environment, landscaping, natural features and open space, types and style of housing, and number and size of roads and sidewalks (Farr, 2009).

Charette: A planning session in which participants brainstorm and visualize solutions to a design issue (Farr, 2009).

Comprehensive Plan: A municipal document or series of documents that serves as a guide for making land use changes, preparation of capital improvement programs, and the rate, timing, and location of future growth. It is based upon establishing long-term goals and objectives to guide the future growth of a city. It is also known as a master or general plan (Farr, 2009).

Conservation Area: Environmentally Sensitive and valuable lands protected from any activity that would significantly alter their ecological integrity, balance, or character, except in cases of overriding public interest (Farr, 2009).

Corner Store: A small retail establishment (3,000 sq. ft. maximum) located in a residential area. It may include a single residential unit. This land use is limited to areas with adopted neighborhood plans that specifically permit them (Farr, 2009).

Density: The average number of people, families, or housing units on one unit of land. Density is also expressed as dwelling units per acre (Farr, 2009).

Detention Pond: Also called extended detention basins, an area surrounded by an embankment, or an excavated pit, designed to temporarily hold stormwater long enough to allow solids to settle. It reduces local and downstream flooding (Farr, 2009).

Drosscape: Dross is a term that is used to describe the waste, 'scape' is used as something that has resurfaced; drosscape is essentially 'waste landscapes' within urbanized regions (Berger, 2007).

Ecosystem: The species and natural communities of a specific location interacting with one another and with the physical environment (Farr, 2009).

Ethico-Aesthetic: A design principle that brings together architecture, landscape architecture, planning, and urban design into a dimension of by registers of mental, social, and environmental ecology (Mostafavi, 2010).

Flood Plain: The nearly level area adjacent to a water body, subject to inundation under heavy rain or blockage condition. Also called the overflow area (Farr, 2009).

Flood Zone, 100 Year: The land along a creek, dry wash, river, lake, seaside, swamp, bay, estuary, or in a low-lying area or depression that has a 1 in 100 chance of flooding every year (Farr, 2009).

Floor Area Ratio (FAR): The total floor area of all buildings or structures on a lot divided by the total area of the lot (Farr, 2009).

Greyfield: economically outdated, failing, blighted real estate containing large parking lots that are usually located in places that are prime for retail (Langdon, 2009).

High-Performance Infrastructure: An emerging field that combines many strains of reform: the smart-growth concern about the financial burden imposed by new infrastructure needed to support greenfield development, the new urbanist's desire for humane, pedestrian-scaled infrastructure design, and the green building movement's focus on resource "greening" and consumption efficiencies (Farr, 2009).

Human Scale: Development designed so a person can comfortably walk from one location to another, providing visually interesting and useful details (Farr, 2009).

Infill Development: A type of development occurring in established areas of a city (Farr, 2009).

Infrastructure: Water and sewer lines, roads, urban transit lines, schools, and other public facilities needed to support developed areas (Farr, 2009).

Joie De Vivre: a delight in being alive; keen, carefree enjoyment of living (dictionary, n.d.).

Landscapes of Exchange: or wasteful space, addresses "demalling" or the landscape of dying shopping centers (Berger, 2007).

Landscape Urbanism: A disciplinary realignment currently underway in which landscape replaces architecture as the basic building block of contemporary urbanism (Waldheim, 2006).

Mixed-Use (MU): A development that combines residential, commercial, retail, and/or office uses, either in a vertical fashion (in a single building) or a horizontal fashion (adjacent buildings) (Farr, 2009).

Neighborhood: A fundamental form of European settlement, represented by mixed-use, pedestrian-friendly communities of varied population, either standing free as villages or grouped into towns and cities (Duany, 2011).

New Urbanism: Neighborhood design trend used to promote community and livability. Characteristics include narrow streets, wide sidewalks, porches, and homes located closer together than typical suburban designs (Farr, 2009).

Open Space: An area set aside or reserved for public or private use with very few improvements (Farr, 2009).

Plan: A statement of policies, including text and diagrams, setting forth objectives, principles, standards, and proposals for the future physical development of the city or county (Farr, 2009).

Planning: The process of setting development goals and policy, gathering and evaluating information, and developing alternatives for future actions based on the evaluation of the information (Farr, 2009).

Quality of Life: Those aspects of the economic, social, and physical environment that affect whether a community is considered a desirable place in which to live or do business (Farr, 2009).

Redevelopment: The conversion of a building or project from an old use to a new one (Farr, 2009).

Rezone: To change the zoning classification of particular lots or parcels of land (Farr, 2009).

Riparian Area: Vegetated ecosystems along a body of water through which energy, materials, and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding (Farr, 2009).

Runoff: The water that flows off the surface of the land, ultimately into streams and bodies of water, without being

absorbed into the soil (Farr, 2009).

Smart Growth: a set of policies that direct most investment into established urban areas to strengthen older communities (Sobel & Bodzin, 2002).

Sprawl: defines patterns of urban growth that include large acreage of low-density residential development, rigid separation between residential and commercial uses, leapfrog development in rural areas away from urban centers, minimal support for non-motorized transportation methods, and a lack of integrated transportation and land use planning (Farr, 2009).

Streetscape: The space between the buildings on either side of a street that defines its character (Farr, 2009).

Sustainability: A concept and strategy by which communities seek economic development approaches that benefit the local environment and quality of life (Farr, 2009).

Sustainable Urbanism: Walkable and transit-served urbanism integrated with high-performance buildings and high-performance infrastructure (Farr, 2009).

Town Center: enduring, walkable, and integrated open-air, mixed-use development that is organized around a clearly identifiable and energized public realm usually located at the intersection of a transit boulevard and a local arterial road (Gupta, 2008)

Town Planning: until 1930 considered a humanistic discipline based upon history, aesthetics, and culture, now currently is a technical profession based upon numbers, categories and quantities of sprawl (Duany, 2011).

Traditional Neighborhood Development: A basic unit of the new urbanism containing a center that includes a public space and commercial enterprises; an identifiable edge, ideally a five-minute walk from the center; a mix of activities and variety of housing types; an interconnected

network of streets, usually in a grid pattern; and a high priority on public spaces, with prominently located civic buildings and open space that includes parks, plazas, and squares (Farr, 2009).

Transit-Oriented Development (TOD): A form of development that emphasizes alternative forms of transportation other than the automobile—such as walking, cycling, and mass transit—as part of its design. TOD locates retail and office space around a transit stop. This activity center is located adjacent to a residential area with a variety of housing options, such as apartments, townhouses, duplexes, and single-family houses (Farr, 2009)

Waste Landscape: see Drosscape (Berger, 2007).

Watershed: The geographic area from which water drains into a specific body. A watershed may contain several subwatersheds (Farr, 2009).

Wetlands: An area having specific hydric soil and water table characteristics supporting or capable of supporting wetlands vegetation (Farr, 2009).

Worthy: is described as finding value through time; necessitates knowing the now in which the making happens and anticipating some turnings within the natural systems and human conditions beyond the present, in the future of those living and inanimate things with which the masterful landscape architect makes an immediately valuable creation timeless but not permanent (Olin, McGlade, Sanders, Weiler, Rubin, 2008).

Zoning: The classification of land in a community into different areas and districts. Zoning is a legislative process that regulates building dimensions, density, design, placement, and use within each district (Farr, 2009).

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