Minneapolis
City of Lakes

Upper Harbor Terminal

TECHNICAL ANALYSIS STUDY

DECEMBER 2014

Acknowledgments

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1955 Fairchild aerial photos, both looking north, Minneapolis Park and Recreation Board
The Upper Harbor Terminal site is on the left side in both photos.

I. Background

THE SITE

The Upper Harbor Terminal (UHT) is a 48-acre industrial property located approximately 2 miles from downtown Minneapolis along the west bank of the Mississippi River, between Lowry Avenue N. and the Camden Bridge in North Minneapolis. The linear site stretches almost one mile long along the Upper Mississippi, located between the shoreline on the east and Interstate 94 on the west. The site enjoys convenient access to Interstate 94 at Dowling Avenue N. and a direct connection to downtown Minneapolis south along Washington Avenue N. Access to the site is currently provided at Dowling Avenue N. and 33rd Avenue N., along 2nd Street N./Washington Avenue N.

The Upper Harbor Terminal site is equipped for intermodal transfer of a variety of bulk commodities including grain, aggregate, coal, fertilizer, and metal products, and comprises a number of buildings and structures for storing and handling these materials, including concrete domes, loading and conveyance structures, a large concrete warehouse building, outdoor storage areas, a seawall, barge mooring cells, and an open area for storage of dredging materials.

The CP Rail Line runs parallel to the river and I-94 and continues to provide rail shipping service to customers south of the Upper Harbor Terminal site and is anticipated to continue to do so into the future. Overhead electrical transmission lines and lattice pole structures are located on the site, between the rail line and the river. The transmission lines originate across the river at an Xcel power plant that has been in operation for over 100 years. The rail and power lines possess easements that limit development of structures within them and carve the terminal site into long narrow development parcels between the river and the rail line.

The Upper Harbor Terminal was constructed by the City of Minneapolis beginning in 1968 and took over two decades to reach its present form. Since

Figure 1-1. Upper Harbor Terminal site map

the mid 19th century the Upper Mississippi has played a role in the industrial history of the city. From the 1850's through the 1920's, sawmills, lumberyards and foundries were located along the river, above Saint Anthony Falls. Rail transportation played a key role in the distribution of materials and its location next to the river was ideal. The lumber industry declined in the early 20th Century and was replaced with scrap metal, aggregate, fertilizer, coal, and grain industries. The Upper Harbor Terminal continues to play a role in the storage and transfer of those commodities today, but that is about to change soon.

The move to reduce the threat of invasive Asian Carp migrating into the upper waters of the Mississippi has led to the Water Resources Reform and Development Act of 2014, signed by President Obama in June of 2014, ordering the U.S. Army Corps of Engineers to close the Upper Saint Anthony Falls Lock within a year. The closure of barge business above Saint Anthony Falls provides an opportunity for the City to shape a new vision for the Upper Harbor Terminal.

GOALS AND PURPOSE OF THE STUDY

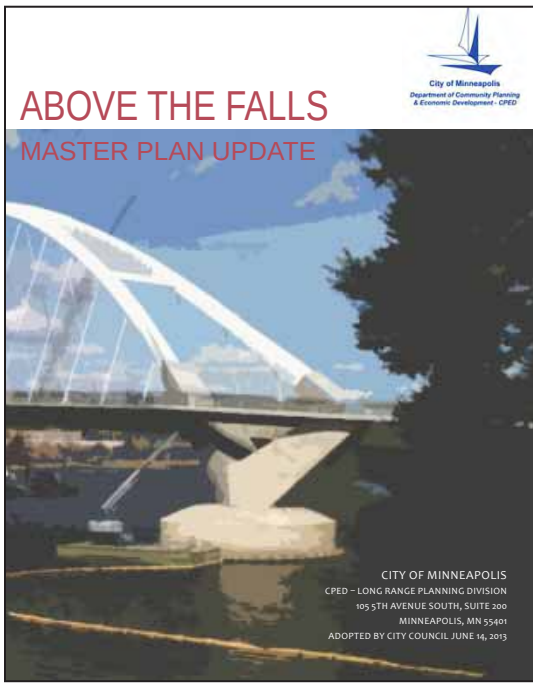
The primary goal of the study was not to arrive at a preferred development plan, but rather to assist the City and Park Board in deciding how to divide the site between park and development in a manner that will provide both viable, flexible development sites and park parcels that will accommodate the desired linear park and parkway connections and high-quality park amenities. The secondary goal was to identify what park and other public improvements are likely to be needed and estimate how much those improvements might cost so that an overall funding strategy can be prepared. To achieve these goals, the study:

- Gathered and evaluated updated information about the existing site conditions (including a survey) and the various plans and studies that will inform development of the site.
- Researched other similar projects in other parts of the country to learn from them.
- Did "test fit" analyses of three possible scenarios that used various assumptions as to the mix of park and development land, development intensity levels, possible infrastructure and power line solutions and whether some of the existing structures on the site are preserved for reuse. Each concept also included initial projections of development/job potential and cost estimates for the expected public and park improvements.
- Helped think through how redevelopment might be phased to make it more feasible and successful.

RELATED PLANS AND STUDIES

Several related plans and studies and adopted policy documents have informed the redevelopment strategies prepared for the Upper Harbor Terminal site. A list of plans, studies, policy documents and the key takeaways associated with each include the following:

Above the Falls Master Plan Update *(Adopted by the Minneapolis City Council, 2013)*



The ***Above the Falls Master Plan Update*** was approved by the Minneapolis City Council in June, 2013. The plan updates the policy guidance for Minneapolis' upper riverfront from the vision in the original plan adopted in 2000.

Key Takeaways

- The Upper Harbor Terminal site is guided as "Business Park" in the future land use map (office/light industrial).
- Potential for a mix of land uses at Dowling Avenue N. and Washington Avenue N.
- Barriers to connectivity and development include I-94, CP freight rail lines, Xcel power transmission towers and lines, gas and water lines, lack of roadways, trails and sidewalks, and surrounding industrial land uses.
- Create stronger links to the Northside neighborhoods along Dowling Avenue N.
- Explore potential to link to the Northside neighborhoods with a bike/ped bridge over I-94 at 34th Avenue N.
- The existing rail crossings at Dowling Avenue N. and 33rd Avenue N. are key access points to the riverfront.
- Parking and loading areas should be internal to redevelopment sites and minimized along the riverfront.
- The south portion of the Terminal site is guided for the *Northside Wetlands Park*
- The north portion of the Terminal site is guided for intensive office and light industrial development.
- The Above the Falls Regional Park is envisioned as a continuous public open space along the riverfront. A key component of the park plan is the extension of West River Parkway north to the Camden Bridge. The plan recommends exploring the concept of a wetlands park on the site, but doesn't fully endorse it.
- Stabilize and revegetate the banks and slope along the upper riverfront.
- Utilize best management practices in stormwater management.

jects 0–5 Years
nds Park

RiverFIRST: A Park Design Proposal and Implementation Framework for the Mississippi Upper Riverfront (Adopted by MPRB, 2012)

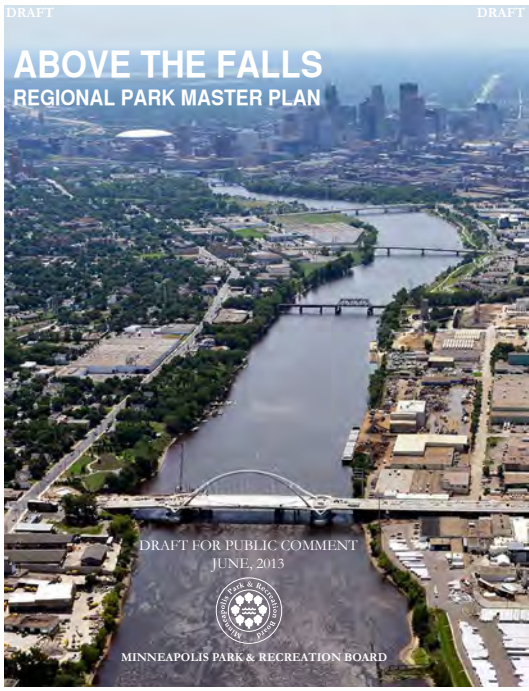
In March 2012, the Minneapolis Park and Recreation Board approved ***RiverFirst: A Park Design Proposal and Implementation Plan for the Minneapolis Upper Riverfront***. RiverFirst is a 20-year vision for creating the next generation of parks along 5.5 miles of the Mississippi River in Minneapolis. In realizing this vision – beginning with five priority projects in the next five years – the City can leverage one of three great rivers of the world as a source for economic development and community and cultural vitality.

Key Takeaways

- Establish parks as an engine for economic development along the riverfront.
- Knit both sides of the riverfront together with their surrounding communities, transforming the river from a barrier into a connector.
- One of the eight RiverFIRST areas of opportunity includes the *Northside Wetlands Park*, a 25-acre wetland park, located on the UHT site.
- *Northside Wetlands Park* is intended to create a public space amenity at the riverfront, provide bio-infiltration for stormwater flows, increase flood protection and create new riverfront habitats.
- The *Northside Wetlands Park* is a priority project: 0-5 year plan
- Enhance connections to Northside neighborhoods and provide access to the riverfront and river trails.
- Link a pedestrian and bicycle trail to North Mississippi Regional Park.
- Establish a brand identity for the UHT site area.
- Explore the reuse the Cold Storage building, possibly as a year-round recreation center.
- Integrate future development at UHT with the design of the park.
- Create a series of interlinked loops that connect the North and Northeast neighborhoods to the river and each other.
- Focus on and restore river ecology.
- Enhance access and mobility to and from the river.
- Improve water quality.
- Promote green networks – ped and bike facilities, community gardens, greenways, etc.

Above the Falls Regional Park Master Plan *(Completed in 2013; Pending approval by MPRB and Metropolitan Council)*

The ***Above the Falls Regional Park Master Plan*** renews the vision of the original Above the Falls Plan (completed in 2000) and integrates elements of the Above the Falls Phase 1 and RiverFIRST plans. The ATF Regional Park aims to revitalize the upper river, create a framework of recreation and restored ecological function.



Key Takeaways

- The ATF Regional Park is envisioned as a continuous park and trail system along both banks of the river.
- Integrate stewardship of natural and cultural resources with parks and trail design.
- Extend the West River Parkway north along the west bank of the river, requiring acquisition of privately and publicly owned parcels.
- Develop the *Northside Wetlands Park* with connections to Northside neighborhoods.
- The ATF Regional Park boundary consumes a good portion of the UHT site, including all of the riverfront.
- Soils on the west side of the river are relatively stable and suitable for development.
- Soil contamination is expected on the UHT site due to industrial use of the site.
- Park development projects must account for extensive remediation needs through Phase I and II testing.
- Access to development from the proposed parkway should be limited and provided on other streets.
- Preserve river views along Dowling Avenue N.
- Stormwater management in the ATF will be integrated with park and parkway lands.

2030 Regional Parks Policy Plan *(2013)*

The ***2030 Regional Parks Policy Plan*** is intended to be the "go-to" document for local agencies in their management of regional parks within the system. The plan's policies guide expansion and development goals of regional parks and trails, as well as lay out policies for appropriate use of parks and trails already within the system. Overall, the policy plan is focused on growth and expansion, but any changes in usage of existing parks and trails in the system must follow the policies laid out in the plan. The ***Regional Parks Policy Plan*** is currently under revision by the Metropolitan Council.

Key Takeaways

- Lands with natural resource features and/or access to water will have priority over other proposed park land.
- New trails or trail segments that serve a regional audience are a significant priority.
- Special recreation facilities must enhance services and facilities not already offered, not compete or duplicate them.

- Create recreational and open space amenities and trail linkages to enhance private development opportunities.
- Limit hardscapes and impervious surfaces.

Above the Falls Policy Review and Implementation Study (2010)

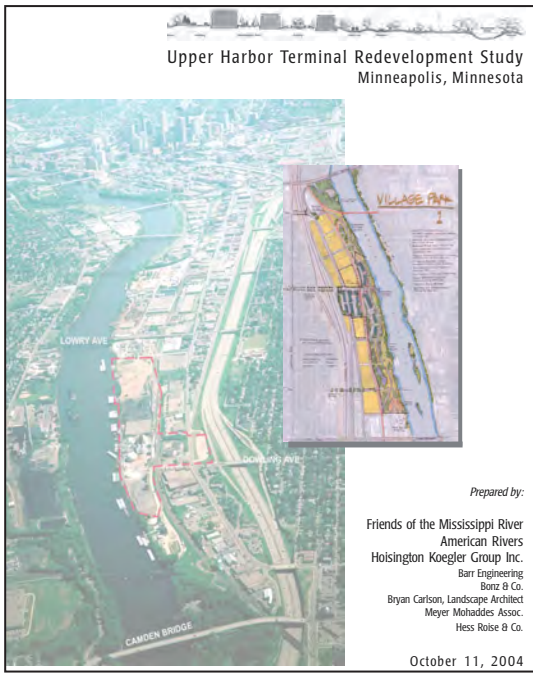
Since 2010, City of Minneapolis staff has been working on the ***Above the Falls Policy Review and Implementation Study*** (PRIS) to explore policy and regulatory strategies for providing existing property owners clearer expectations about the phasing of long-range land use transitions, and to analyze potential impacts of the (Above the Falls land use guidance) related to the extent and phasing of the transition from industrial to nonindustrial development.

Key Takeaways

- Development potential of the UHT site could be greatly enhanced by improving access to the Mississippi River.
- Infrastructure in the Upper Mississippi River area has capacity to support intense land uses.
- Redevelopment at the UHT site could potentially be marketed to users requiring a combination of office, manufacturing and distribution functions in one location.
- Existing higher value neighborhoods in the Twin Cities will have an advantage in attracting new multi-family residential development to them.
- New residential development on the west side of the upper river is challenging because of the physical separation from existing neighborhoods by I-94, and fewer existing amenities.
- The upper riverfront may be attractive for new industrial growth given the site's existing industrial infrastructure, highway access and close-to-downtown location.
- Redevelopment of the UHT site will likely require substantial City assistance in preparing the site for redevelopment and making it financially feasible.
- Further study is required to gain a better understanding of potential soil cleanup costs.
- The terminal is served by a Canadian Pacific spur rail line that is also used by Twin City & Western Railroad.
- Most of the commodities arrive by barge and are shipped out by truck. Only 5% of the materials shipped out of the UHT use the rail spur.
- The UHT site could be a key contributor to the City's goals for green industry. There is potential for the UHT site to move toward the concept of an Eco-Industrial Park.
- The UHT site is poorly served by public transit. Better access to public transit would enhance development potential at UHT.

Upper Harbor Terminal Redevelopment Study (2004)

The ***Upper Harbor Terminal Redevelopment Study*** completed in 2004, examined the redevelopment potential for the Upper Harbor Terminal site. The study looked at three redevelopment alternatives: "Village Park", "Eco Park" and "Urban Park". Each alternative included residential uses, balancing housing with open space. Each also promotes innovative stormwater treatment and enhanced community connections.



Key Takeaways

- Any UHT redevelopment will require significant up-front investment in core infrastructure and amenities to succeed.
- Ecological, recreational and economic goals can be mutually beneficial.
- Balance development with river restoration.
- Reconnect and integrate neighborhoods with the river.
- Provide a unique focal attraction at the river where people can gather and enjoy the river.
- Restore the river's ecological function.
- Maximize natural and passive landscapes within open space.
- Utilize best management practices in stormwater treatment.

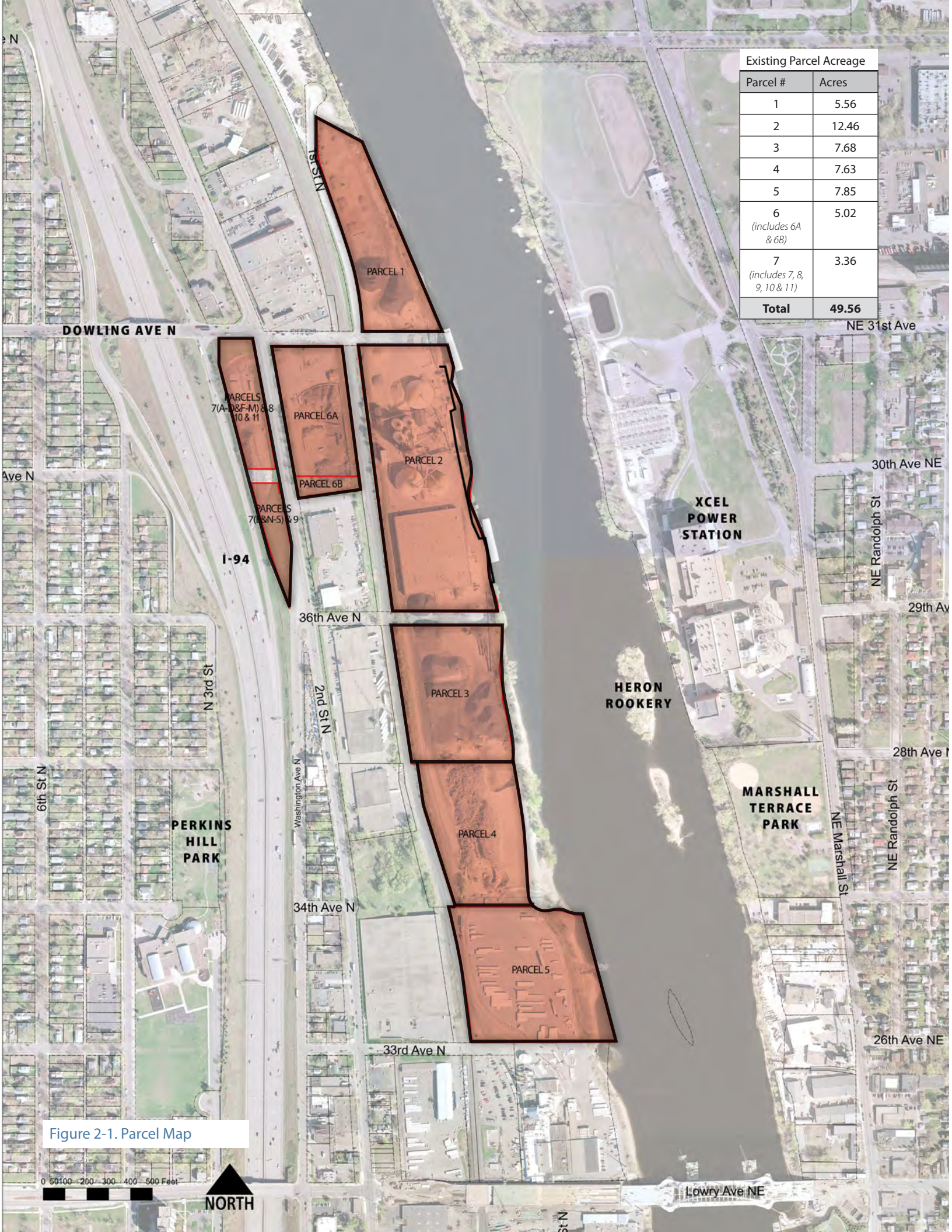


Figure 2-1. Parcel Map

II. Existing Conditions

ZONING AND LAND USE

The following is a brief summary of existing zoning and land use designations on the Upper Harbor Terminal site, as well as future land use designation guided for the site by the ***Minneapolis Plan***.

Existing Zoning

- **I1: LIGHT INDUSTRIAL DISTRICT** - The I1 Light Industrial District is established to provide clean, attractive locations for low impact and technology-based light industrial uses, research and development, and similar uses which produce little or no noise, odor, vibration, glare or other objectionable influences, and have little or no adverse effect on surrounding properties.
- **I2: MEDIUM INDUSTRIAL DISTRICT** - The I2 Medium Industrial District is established to provide locations for medium industrial uses and other specific uses which have the potential to produce greater amounts of noise, odor, vibration, glare or other objectionable influences than uses allowed in the I1 District and which may have an adverse effect on surrounding properties.

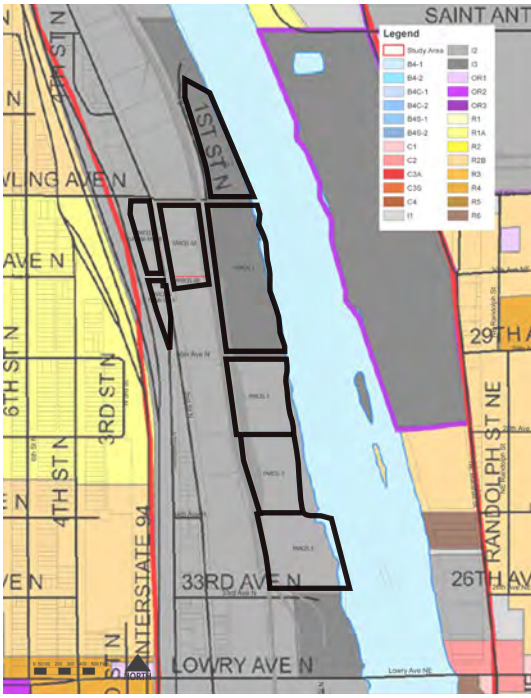


Figure 2-2. Existing Zoning Map

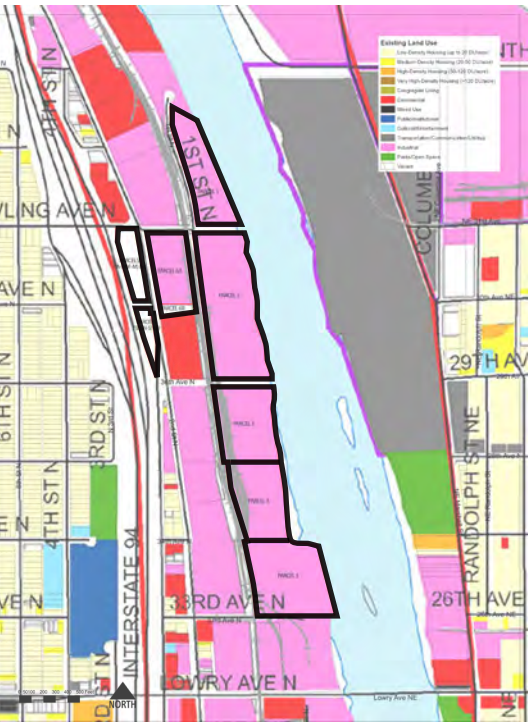


Figure 2-3. Existing Land Use Map

Existing Land Use

- **INDUSTRIAL** - Includes areas suited for industrial development and limited supporting commercial uses. Generally found within Industrial Employment Districts, with a high level of policy protection and an emphasis on job retention and creation. Industrial uses have primacy over other uses.
- **COMMERCIAL** - Includes a broad range of commercial uses. This designation is reserved for areas that are less suited for mixed use development that includes residential.

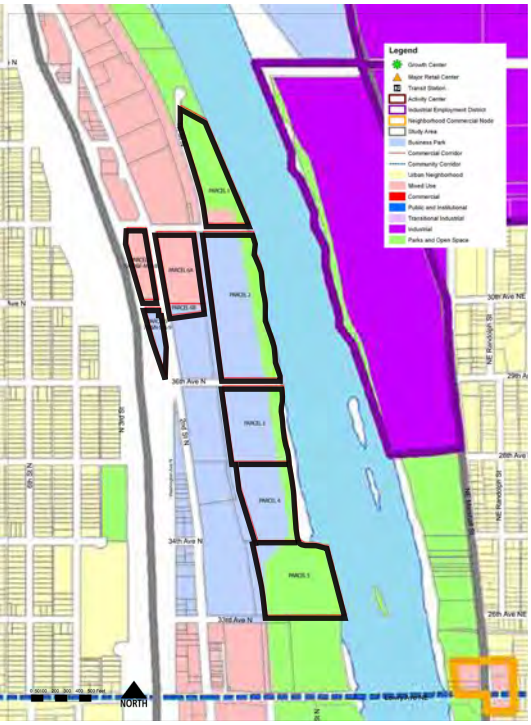


Figure 2-4. Future Land Use Map

Future Land Use

This Future Land Use Plan is adopted policy in the ***Above the Falls Master Plan Update*** and eventually will be adopted into the City's comprehensive plan.

- **BUSINESS PARK** - This is a new land use category that is intended to support office and light industrial development that is compatible with other land uses.
- **MIXED-USE** - Allows for mixed use development, including mixed use with residential. Mixed use may include a mix of retail, office or residential uses either within a building or within a district. There is no requirement that every building be mixed use.
- **PARKS AND OPEN SPACE** - Applies to land or water areas generally free from development. Primarily used for park and recreation purposes, natural resource conservation, or historic or scenic purposes.

PHYSICAL CONDITIONS

Topography

The site generally slopes eastward toward the Mississippi River. The large areas between the CP Rail Line and the shoreline are fairly flat and accommodate large outdoor storage areas, a warehouse building and domed storage tanks. West of the rail lines, the slope increases up toward 2nd Street N. and Washington Avenue N. The west edge of the site sits well above adjacent Interstate 94. On the east edge of the site, the shoreline is very steep, dropping approximately 15 -20 feet down to the river, and includes a sheer seawall south of Dowling Avenue N.

Vegetation

The UHT site is sparsely vegetated. Existing planted areas are generally restricted to the shoreline in locations away from the seawall. These areas include box elder, cottonwood, buckthorn and other plant species well suited to disturbed sites and a fluctuating river shoreline.

Figure 2-5. Existing Sections Map

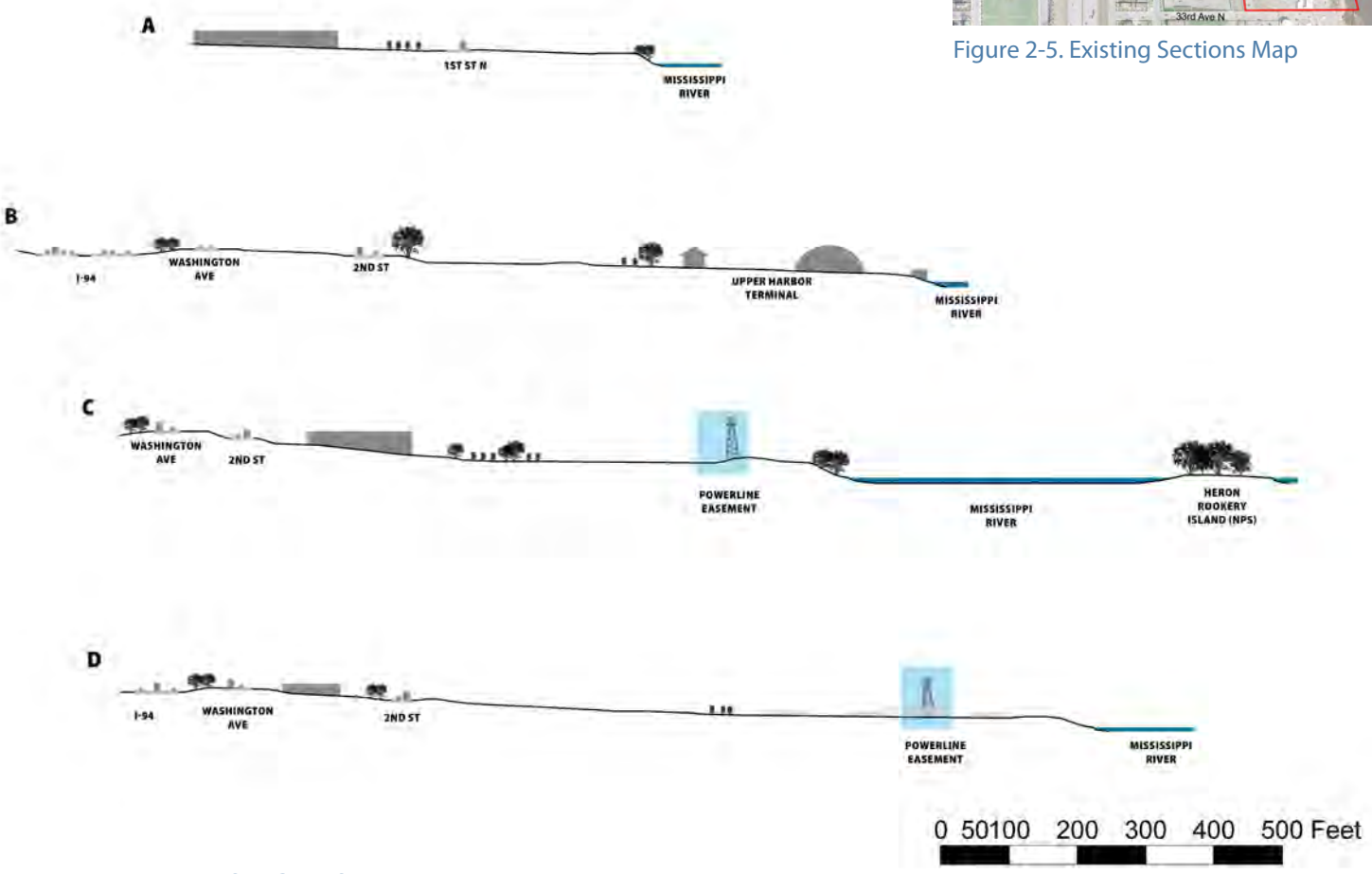


Figure 2-6. Existing Site Cross Sections

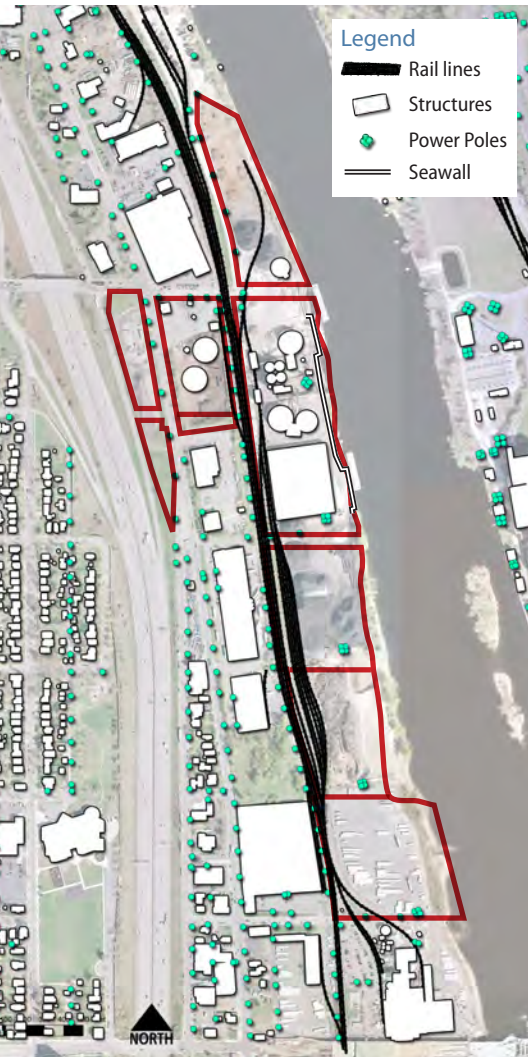


Figure 2-7. Existing Structures, Rail Lines, Power Poles, and Seawall

Structures

The UHT site character reflects its industrial history as a barge terminal. Massive storage structures, loading and conveyance machinery and outdoor piles of shipping products dominate the site. An 110,000 square foot concrete tilt-up cold storage warehouse building is located just south of Dowling Avenue N., near a collection of concrete domed storage structures, weigh stations and conveyance machines.

An approximately 800 foot section of the shoreline consists of a sheer seawall that allows barges to dock for loading and unloading. Much of the grounds are paved with concrete and are used for the storage of aggregates, construction materials and metals. A 5-acre area south of the warehouse building has historically been designated for river dredging storage; however, with the closing of the Upper Saint Anthony Falls Lock and the elimination of the barge terminal business, there is little need to continue dredging the river above the falls.

The site is bisected by freight rail lines (CP Rail) and power transmission towers and lines (Xcel), running north-south, chopping the site into shallow parcels and restricting the potential for redevelopment of office and industrial buildings. Elimination of the inactive spur rail lines and relocation of the power transmission towers and lines will go a long way to free up development potential on the site and remove visual barriers to the river amenity for future building tenants.

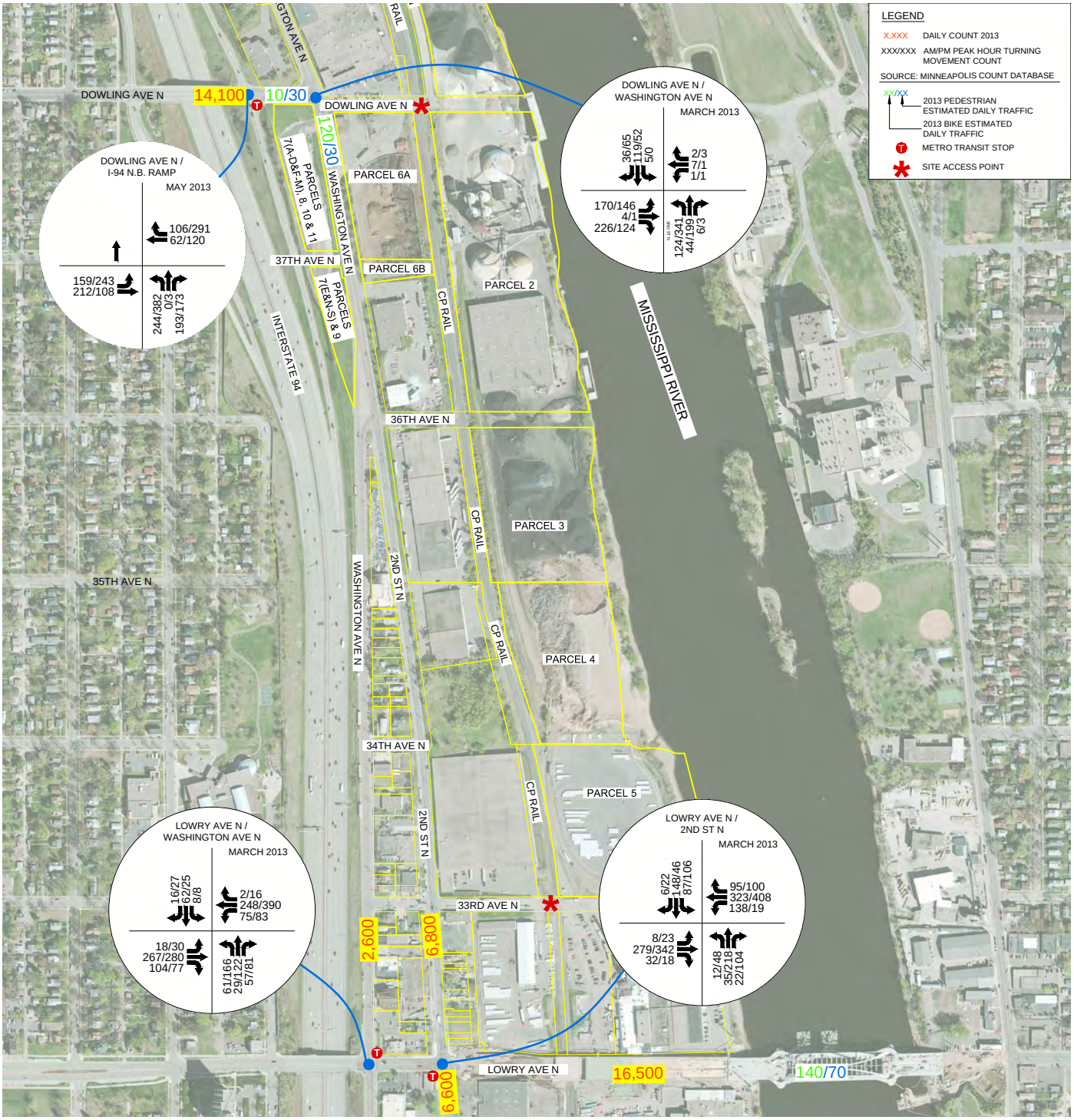
TRANSPORTATION

Motor Vehicle Site Access and Circulation

The existing accesses to the UHT site are at the north end at Dowling Avenue N and at the south end at 33rd Avenue N. Washington Avenue N (CSAH 152) and 2nd Street N both provide north-south connectivity along the western portion of the site, connecting to Dowling Avenue N and 33rd Avenue N, and both streets continue south through Downtown Minneapolis. North of Dowling Avenue N, 1st Street N provides access to the northeastern most parcel of the site. There is currently no street or parkway along the west side of the Mississippi River on the site.

There is a full highway interchange at Dowling Avenue N providing access to and from Interstate 94. The Dowling Avenue Bridge at the interchange connects the site to greater North Minneapolis over the freeway. Lowry Avenue N (CSAH 153) is an east west County Roadway providing connectivity across the Mississippi River to Northeast Minneapolis and beyond and across I-94 to North Minneapolis and into Robbinsdale.

All city streets in the area of the UHT site are two-lane streets with the exception of Lowry Avenue which is a four-lane street.



Washington Avenue North

- County Rd - CSAH 152
- Collector Functional Class
- Washington Avenue Bikeway - on street bike lanes (planned per Master Plan)
- Industrial Street Type (Access Minneapolis Transportation Plan)

2nd Street North

- MSA 215
- Collector Functional Class
- Sidewalk gap identified in Ped Master Plan north of 33rd Avenue North
- On-street Bike Lanes in place

Lowry Avenue North

- County Rd - CSAH 153
- B Minor Arterial
- Lowry Bikeway - on street bike lanes (in place)
- Community Connector Street Type (Access Minneapolis Transportation Plan)

Dowling Avenue North

- MSA 169
- Collector Functional Class
- Dowling Avenue Bikeway - on street bike lanes (planned per Master Plan)
- Community Connector Street Type (Access Minneapolis Transportation Plan)

Figure 2-8. Traffic Volume Data - Motor Vehicle, Pedestrian, and Bicyclist

Bicycle and Pedestrian Circulation

Pedestrian facilities are lacking in the area of the UHT site. There are no trails in the immediate area and currently there are no sidewalks along the following segments:

- Washington Avenue N. – 3456 Washington Avenue N. and Dowling Avenue N.
- 2nd Street N. – 33rd Street N. to Washington Avenue N.
- Dowling Avenue N./Port of Minneapolis Drive – East of Washington Avenue N.
- 33rd Avenue N. - East of 2nd Street N.
- 1st Street N. – North of Dowling Avenue N.

The UHT site presently has limited bicycle connections. There are no bike trails in the immediate area. Bike lanes currently exist along 2nd Street N. between the Washington Avenue N. intersection with Dowling Avenue N. and Downtown Minneapolis. These lanes are planned for extension to the north per the Minneapolis Bicycle Master Plan. Bike lanes are also present on Lowry Avenue N. providing east-west connectivity across the City as well as access to the 2nd Street N. bike lanes. Dowling Avenue N. is a planned future bikeway with on-street bike lanes based on the Minneapolis Bicycle Master Plan.

Figure 2-9. Existing Sidewalks and Trails

RAILROAD LINES AND EASEMENTS

Rail lines

Main line rail exists on the west side of the UHT site from north of Dowling Avenue N. to Lowry Avenue N. with two mainline tracks with spurs and sidings used to accommodate the current and past industrial uses. The property is owned and is currently being operated by Canadian Pacific Railway. The mainline tracks currently serve multiple industries including GAF, located on the south side of UHT and also others, south of Lowry Avenue N.

Privately owned spur lines and sidings can be removed with no special permit, notice or approvals. Reconstruction of existing spurs or sidings or installation of new tracks for future use will require coordination and agreement with CP Railway.

The nominal width of the rail right of way is 66 feet and shown in pink in Figure 2-10.

Easements

The mainline tracks are on railroad right way. Most of the spurs and sidings are not easements, but are on private property.

The right of way research conducted during the ALTA survey revealed 2 rail easements on Parcels 2 and 5 that need more evaluation as to ownership and future need; these are shown in pink.

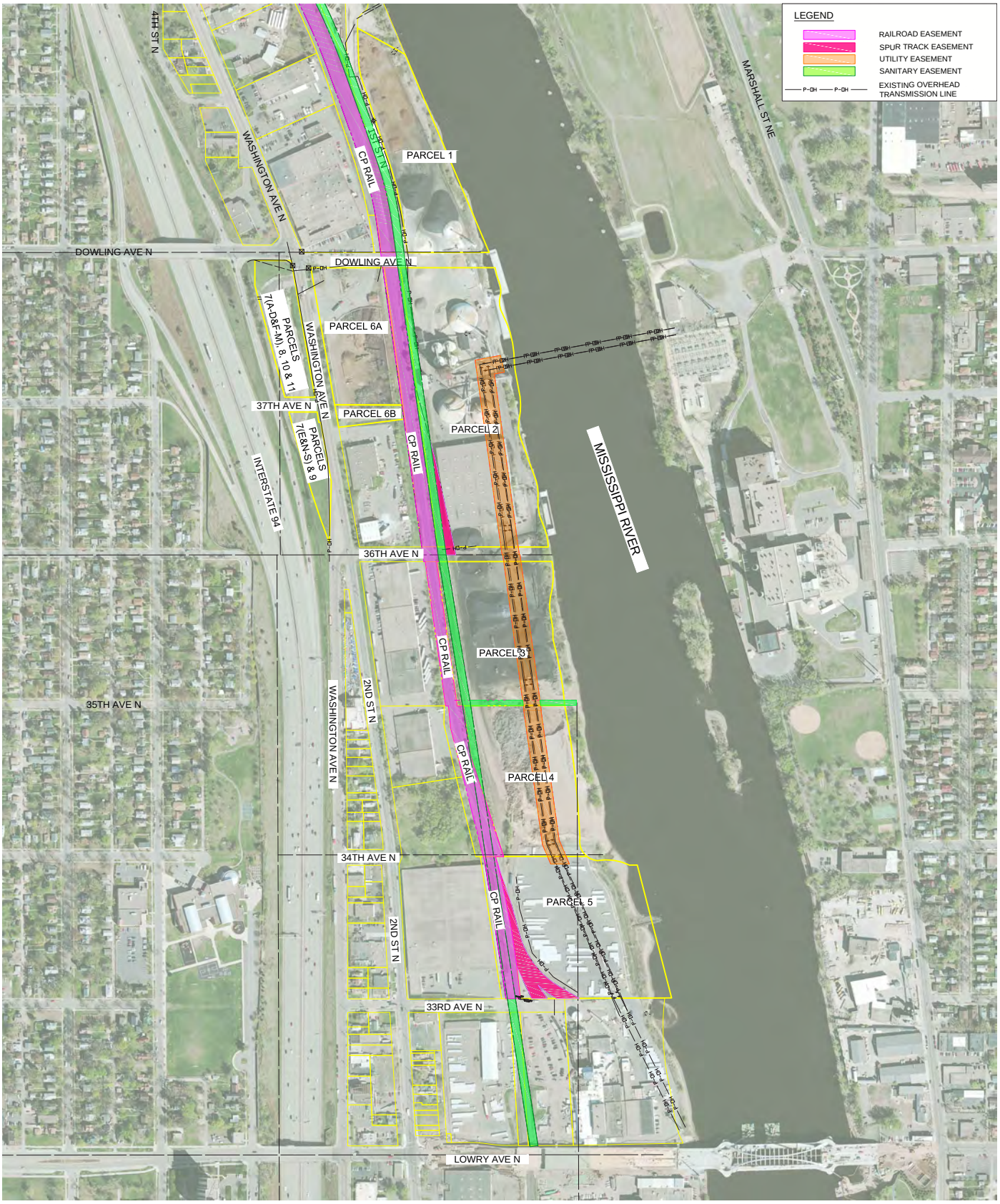


Figure 2-10. Railroad and Easements Map

UTILITIES

Public and private utilities were physically located and included on the ALTA survey prepared for the site. Trunk main public utilities are in close proximity to the site and should provide good service, however, capacity and condition evaluation of the existing utilities was not conducted with this study. A representation of the existing public and private utilities are illustrated on Figure 2-11. For more detail, please refer to the survey document.

Water

The Existing Utilities Map, Figure 2-11, illustrates existing water mains in dark blue. There is a 36 inch main line trunk water main that exists in the 2nd Street N. right of way, a 12 inch diameter main loops through the site down Dowling Avenue N., behind the existing warehouse building and back to connect to 2nd Street N. At the south end, a 24 inch diameter water main extends down 33rd Avenue N.

Sanitary Sewer

There is a 48- 54 inch diameter main line trunk sewer that exists just east of the main line tracks that extends from north of Dowling Avenue N. to 33rd Avenue N. It has a 35 foot wide permanent sewer easement that is illustrated on the right of way and easement drawing in green.

Storm Sewer

Figure 2-11, the Existing Utilities Map, illustrates existing storm sewer in light blue; the size and location of the outfall structures at the river are shown. Many of these are large diameter pipe and likely take storm water discharge from areas up stream.

Transmission Lines

There is a 115 kv double unit overhead transmission line with 4 towers that extends from south of Lowry Avenue N. and crosses parcels 4, 3 and 2, before crossing to the east bank. Figure 2-10, easement and right of way exhibit, shows this 75 foot wide easement in orange.

It is possible to relocate the transmission power line, but it will need to reside in a 75 foot easement with maximum length between towers of 800 feet. The transmission line could be located next to the rail line track, as long as Xcel Energy has access to the towers. If relocation is desired, Xcel will complete an initial scoping exercise to determine the cost, then develop an agreement to move forward. Construction could take 12 – 14 months.

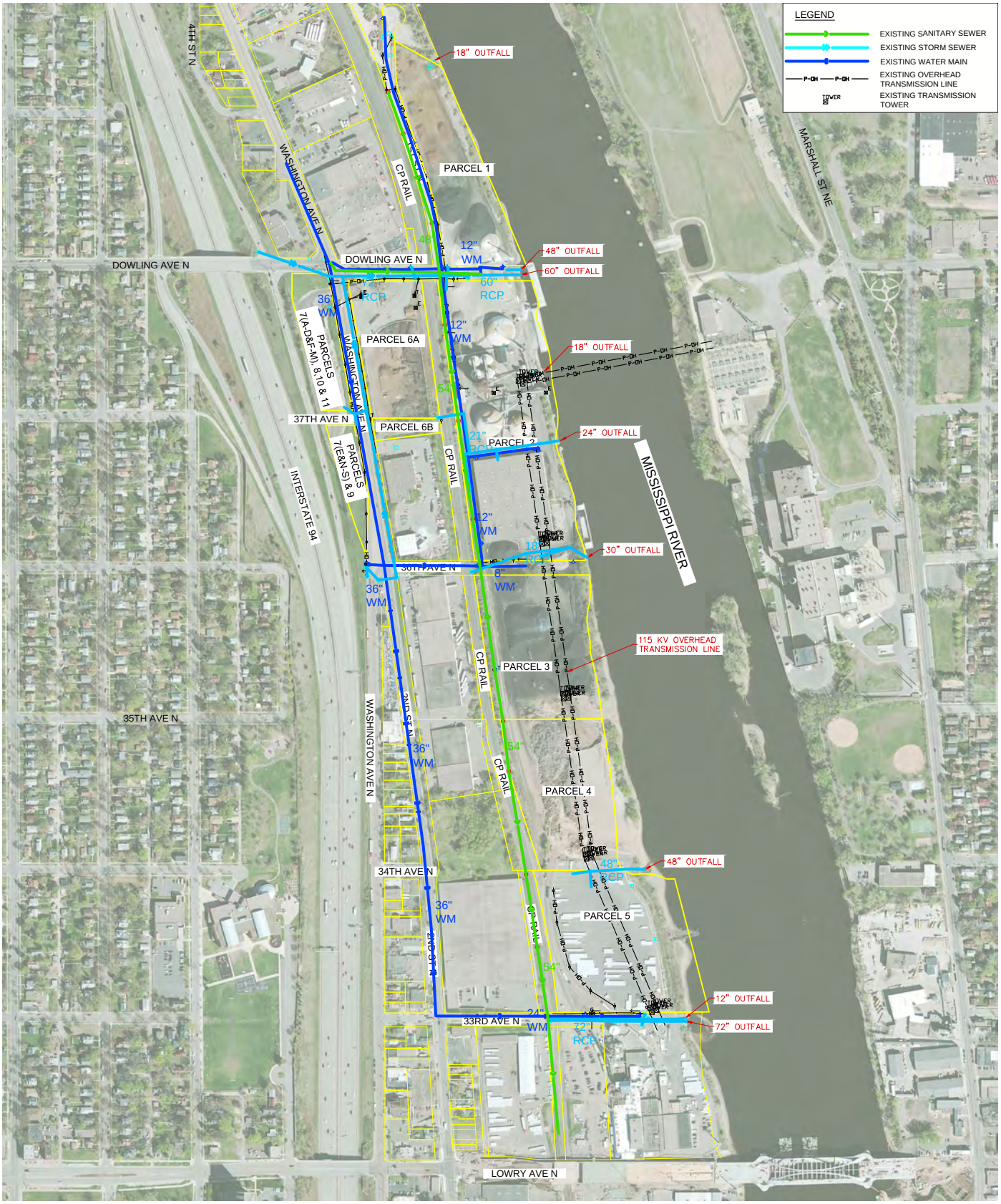


Figure 2-11. Existing Utilities Map

HISTORIC RESOURCES

The Upper Mississippi Harbor Development Architectural/Historical Survey, completed in 2007, suggests that the terminal site, structures, and buildings retain a high degree of historic integrity and as a collection, are eligible for listing in the National Register as part of the potential Upper Harbor Historic District. The Upper Harbor Terminal may also be eligible for Minneapolis landmark designation.

The 2007 study states the following: the Upper Harbor Terminal is eligible for National Register listing under criterion A in the areas of Commerce, Industry, Maritime History and Transportation. The terminal's four monolithic domes may be eligible for National Register designation with local significance under criterion C in the area of Engineering. The domes may also meet Minneapolis Heritage Preservation Commission criterion 4 in the area of Engineering. The Upper Harbor Terminal is eligible for local designation under criteria 1 and 3 for its importance as an industrial site envisioned, promoted, constructed and funded by the City of Minneapolis in response to the Upper Mississippi Harbor Development.

For these reasons, this Redevelopment Study prepared an alternative that anticipates preservation and reuse of the potential historic structures. Further analysis is recommended to determine the historical need to preserve these structures, the impact of preservation on future development potential at the terminal, and the feasibility of reusing these structures for other future uses.

Shoreland Overlay District

Portions of the Upper Harbor Terminal site lie within the Minneapolis Shoreland Overlay District, which provides guidance for development near the City's water bodies. The following key takeways have an impact on development potential for the terminal site:

- Development within the Shoreland Overlay District is prohibited on slopes 18 percent or greater or within 40 feet of the top of a slope or bluff and shall not be located within 50 feet of the ordinary high water mark unless a conditional use permit or variance is approved.
- Height limits for structures within the Shoreland Overlay District are 35 feet. Building heights may be increased by conditional use permit.
- Employ best management practices in the redevelopment of the terminal site to minimize off-site stormwater runoff, maximize overland flow and flow distances covered by vegetation, increase on-site filtration, replicate pre-development hydrological conditions, minimize discharge of pollutants.

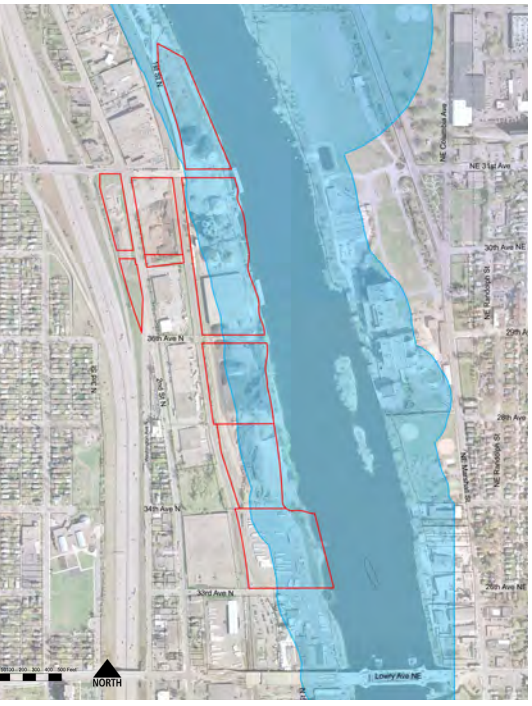


Figure 2-12. Shoreland Overlay District Map

Mississippi River Critical Area Plan

The Mississippi River Critical Area Plan is policy currently under review and being administered by the Minnesota Department of Natural Resources (DNR). The Critical Area Plan is intended to provide rules and regulations to protect key resources and features along the Mississippi River. The Critical Area

includes an area roughly 1,000 feet on either side of the river and so, includes the Upper Harbor Terminal site. Key takeaways from the Critical Area Plan that should be considered in redevelopment of the terminal site include:

- Improve access to and movement along the banks of the Mississippi River
- Create more park space along the river
- Enhance river-oriented recreation opportunities
- Reduce the amount of industry and storage along the riverfront
- Attract development that is compatible with the river
- Protect natural features
- Reduce adverse visual impacts along the river
- Set structures back from the river's edge: 40 feet from the bluff line and 50 feet from the high water mark
- If feasible, relocate transmission lines away from the river
- Protect slopes greater than 18 percent
- New parkways are permitted within the 40 foot bluff line setback under conditional use permit
- The update to the critical area rules may change the setback and height limitations for this area; but since the rules will not be adopted until mid-2015, the existing restrictions still apply.

FLOOD ZONE

The 100 year flood elevation ranges from 810.7 feet at Lowry Avenue to an upstream elevation of 811.9 feet at the Soo RR, as documented in the Hennepin County Minnesota Flood Insurance Study (FIS) dated September 2, 2004. At the center of the site, the flood elevation is estimated to be about 811.3 feet. This elevation, or floodplain line is shown on Figure 2-13. In many areas it is confined to the mainline channel of the river or within approximately 50 feet of the river. The areas outside the main channel are Zone X floodplains which are low risk. They are regulated, but development can occur in these areas as long as the area is increased in elevation above the high risk flood elevations (i.e. 811.3 feet).

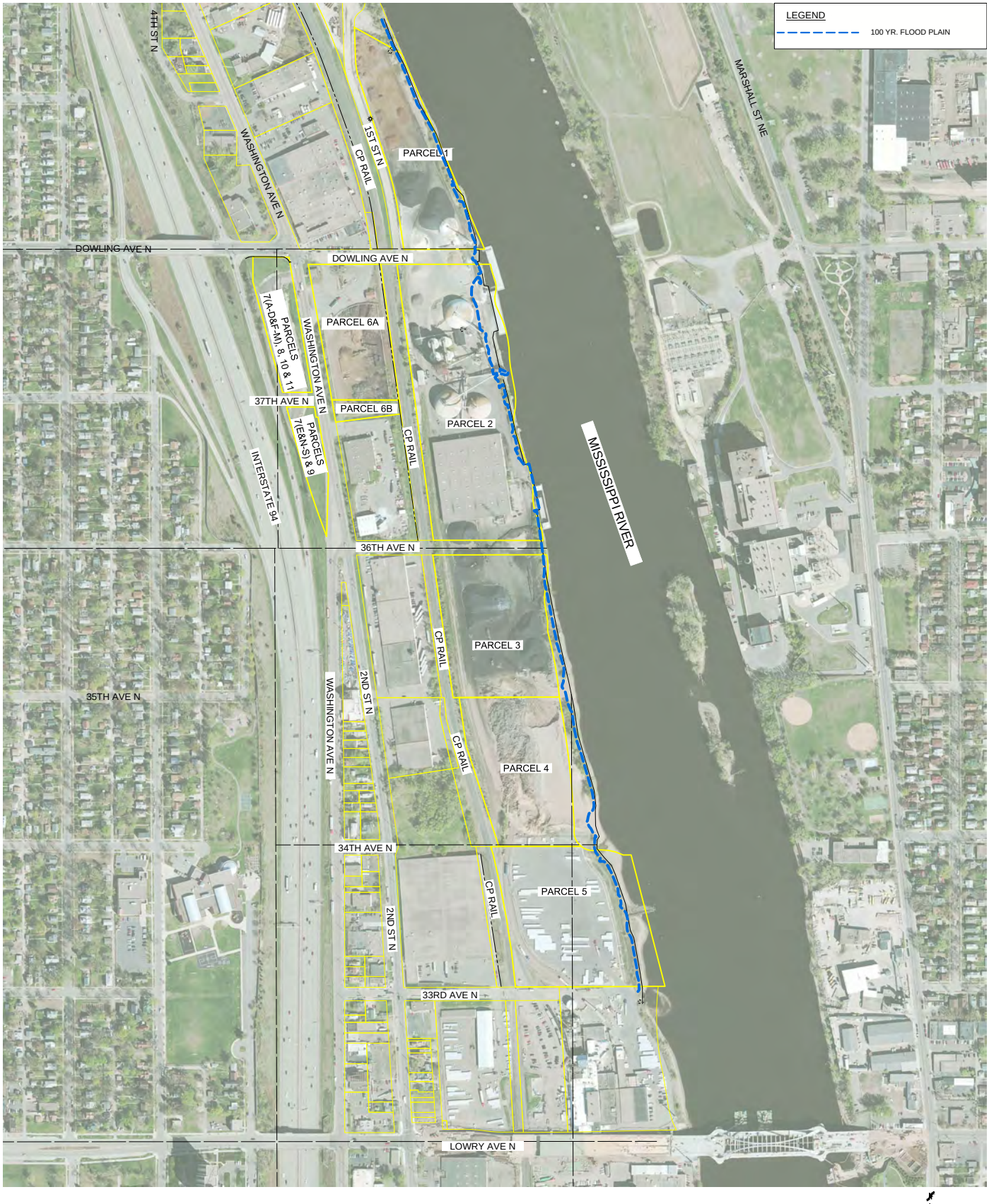
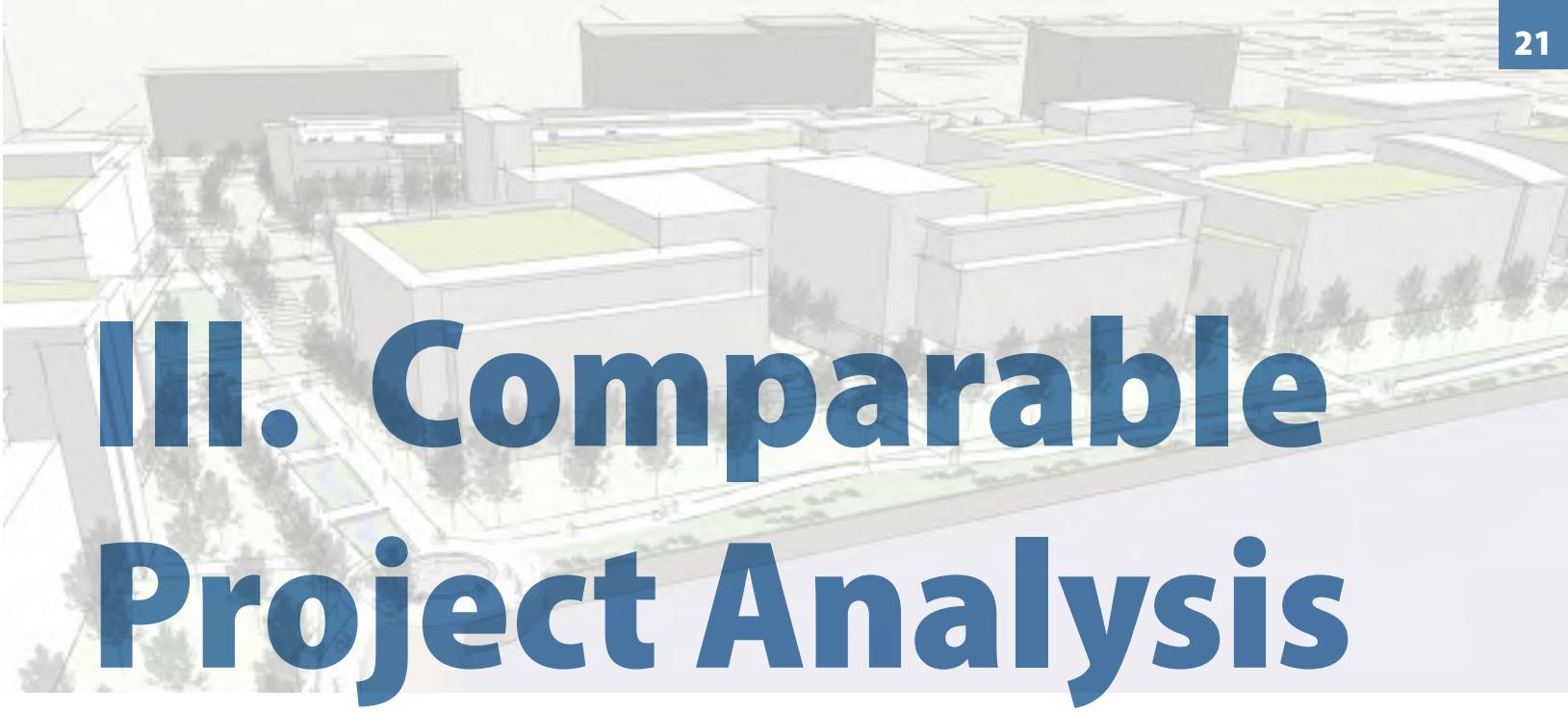


Figure 2-13. Flood Plain Map



III. Comparable Project Analysis

INTRODUCTION

An analysis of precedents and comparable development projects from around the country has been completed that may serve as examples and lessons learned for the City of Minneapolis as it moves forward with site planning and development efforts for the Upper Harbor Terminal (UHT) parcels in North Minneapolis. The intent of this analysis is to present information concerning ideas for tenants, development strategies, implementation tools, and other lessons from prior efforts.

The comparable projects analysis examined, in particular, projects that involved the redevelopment of industrial or brownfield properties into ventures designed to produce noticeable and material impacts in terms of investment and job creation in a particular city. While the planning team scanned for examples of projects from around the country, the analysis in particular focused on examples that shared similarities to the UHT project. Therefore, the examples primarily focus on projects that involved conversion or redevelopment of industrial lands adjacent to rivers in the Midwest or Northeast.

The case studies profile background information concerning each project and outline the key takeaways from each project, as they relate to the Upper Harbor Terminal project in Minneapolis. While every project has its own unique characteristics and context, lessons learned from the various projects will assist the City of Minneapolis going forward.

MENOMONEE VALLEY

Milwaukee, Wisconsin

The Menomonee Valley encompasses around 1,200 acres just to the west of Downtown Milwaukee, along Interstate 94. The area operated as one of the largest industrial complexes in the Midwest during the Industrial Revolution, but as the area declined in the second half of the twentieth century, leaders from the City of Milwaukee and local stakeholder groups worked over many years to outline strategies for the area's rebirth as a key employment center in the region. The Valley today represents one of the best examples of the sustainable redevelopment of brownfield and industrial lands into repurposed business park or office uses in a metropolitan setting.

Contextual and Background Information

As the 1990s progressed, the downtown core of Milwaukee redeveloped, along with the Third Ward neighborhood, to the east of the Valley. The rapid proliferation of loft and retail redevelopment in the Third Ward, in particular, led a range of stakeholders in the Menomonee Valley to articulate the need for the area to outline its vision for the future, in order to maintain its identity separate from Downtown and to maintain its status as a key employment center in the region. The City of Milwaukee conducted ongoing planning and collaboration with various stakeholder groups beginning in the 1990s to outline the preferred vision for the Menomonee Valley and articulate a set of action items and improvements necessary to attract new investment and fortify the area as a key employment center in the region.

Project History and Key Components

The City of Milwaukee commenced formal planning for the future of the Menomonee Valley with the completion of a study of market conditions, engineering considerations, and land use for the district in 1998. The study revealed that the valley continued to enjoy strategic advantages in attracting business, given its central location and access to major freeways and transportation trunk lines serving the region. However, the district required substantial upgrades in vehicular, transit, and pedestrian infrastructure to attract and retain new companies and investment. The process also pointed to the presence of a number of brownfield sites in the area that would require cleanup prior to re-use.

In 1999, the City formed the Menomonee Valley Partnership (MVP) to coordinate the ongoing efforts to revitalize the area. It is a public-private partnership that helps to facilitate business, neighborhood, and public partners in efforts to improve the Valley. As community planning efforts moved forward over the next few years, consensus emerged around a vision of sustainable development of new businesses in the district. Specifically, the vision called for enhanced facilities for people biking and walking, improved park and open space amenities and connections, and the leveraging of the open space and recreational potential of the Milwaukee River. Later, the community completed the Menomonee Valley Sustainable Design Guidelines to steer development in the area in a sustainable direction.

While planning continued, the state moved forward with completion of the Henry Aaron Trail through the valley during

the 2000s, and the city completed the replacement of the Sixth Street Viaduct as a new "gateway" into the district in the early 2000s. The city and state worked together to improve and extend the Canal Street corridor within the valley, and to enhance pedestrian and bicycle mobility in the district. The Valley Passage and Trail connects the city's south side to the Menomonee Valley.

Through collaboration between the City, the Milwaukee Economic Development Corporation, and state agencies, the Memononee Valley Industrial Center has continued to develop in recent years. As of 2011, the center included space supporting 1,100 jobs. A combination of tax increment financing (TIF) and New market Tax Credits helped to facilitate the growth of the Industrial Center. The Canal Street Commerce Center, a light industrial and office building, has also attracted significant new investment, and at the valley's east end, Harley Davidson recently opened a museum facility.

Overall, since the 1990s, Milwaukee has been successful in redeveloping 300 acres of brownfield properties in the valley, creating 4,200 jobs, protecting 45 acres of native plants, creating seven miles of trails, and attracting 20 new companies and seven company expansions. The total of all property tax values in the valley increased from $62 million in 2002 to $128 million in 2009.

Throughout the process, the MVP and other partners have facilitated redevelopment through land acquisition and assembly efforts, making infrastructure and connectivity improvements possible, and providing financial assistance for cleanup and redevelopment efforts.

Takeaways for Upper Harbor Terminal

The Menomonee Valley example provides the following takeaways that may apply to the Upper Harbor Terminal redevelopment efforts in Minneapolis.

- Stakeholders and the broader community conducted broad outreach and planning efforts from early on in the process and continued to do so as the district has emerged. This strategy has resulted in greater buy in for the recommended improvements and strategies to attract new investment to the Menomonee Valley over the last several years.
- Similar to other redevelopments of business parks in urban areas around the country, Milwaukee leveraged the installation of trails and open space connections, in particular with its river, to enhance the marketability and attractiveness of the district.
- Like many similar efforts around the country, Menomonee Valley leaders leveraged the full range of implementation tools, including TIF, brownfield grants, and state, federal, and local funding streams, to make public improvements possible.
- The Menomonee Valley, like Upper Harbor Terminal, enjoys strategic access to Interstate 94, near the heart of its respective metropolitan area. Plans for the valley continued to leverage this centrality to entice new investment by companies. The Upper Harbor Terminal plans should continue to take advantage of the regional connections of the area in ongoing development efforts.

PITTSBURGH TECHNOLOGY CENTER

Pittsburgh, Pennsylvania

The Pittsburgh Technology Center represents one of the best examples of redevelopment or formerly industrial lands into a business park that has helped to transform not only the surrounding neighborhoods, but an overall metropolitan area. The project has helped to revitalize a significant portion of the riverfront in Pittsburgh and helped significantly in the metro area's conversion to an economy more focused on knowledge based industries in the 21st century.

Open space amenities at Pittsburgh Technology Center
Source: Cleveland.com

Contextual and Background Information

The Pittsburgh Technology Center is located on a 48-acre tract, the former site of the Jones and Laughlin steel mill operation, along the Monongahela River a few miles to the east of Downtown Pittsburgh. The project is located very close to the campuses of Carnegie Mellon University and the University of Pittsburgh, the two leading universities in the Pittsburgh area. The site is generally located between the riverfront and the Interstate 376 corridor, which connects from Downtown to Pittsburgh's eastern suburbs.

Project History and Key Components

As the Pittsburgh region was grappling with a massive recession and the wholesale shutdown of its steel mill and related industrial base in the early 1980s, the City's Urban Renewal Authority (URA) launched one of the nation's first brownfield redevelopment projects along the Monongahela River. The URA purchased the site of the defunct Jones and Laughlin steel mill in 1983. The Regional Industrial Development Corporation (RIDC), a non-profit organization that develops and markets business parks and related ventures throughout southwest Pennsylvania, assisted the City in securing a federal grant in 1984 to pay for initial cleanup efforts at the site. The URA expended $18 million to remediate the PTC site and make it attractive for outside buyers and investors. This cost included land acquisition, site preparation, new sewer and electric lines, and construction of initial roads. In addition to the federal grant, URA leveraged funding from the Pennsylvania Commerce Department, the Pittsburgh Water and Sewer Authority, city bond funds, and the RIDC. Tax increment financing has also helped support the ongoing growth of the project. In total, the public sector in Pittsburgh has invested $54 million in various site improvements and amenities at the PTC.

The Pittsburgh Technology Center includes two research facilities for the University of Pittsburgh and Carnegie Mellon and today encompasses nearly 2 million square feet of office and business park space. In 2007 the URA launched an expansion of the park designed to integrate a wider variety of land uses, including a hotel, restaurants, limited retail, and open space amenities, and double the size of the project. The 2007 expansion included the articulation of ongoing

View of Downtown Pittsburgh. The Pittsburgh Technology Center is located to the right.

design standards and a revamped overall master plan for the project, completed by local planners and landscape architects. Overall, the Pittsburgh Technology Center today supports around 1,000 direct jobs and produces over $1 million annually in tax revenue for the city.

The recent expansion of the PTC has emphasized the creation or enhancement of open space amenities in the project, including the construction of paths and trails along the river, to enhance the quality of the experience of tenants and visitors to the technology center.

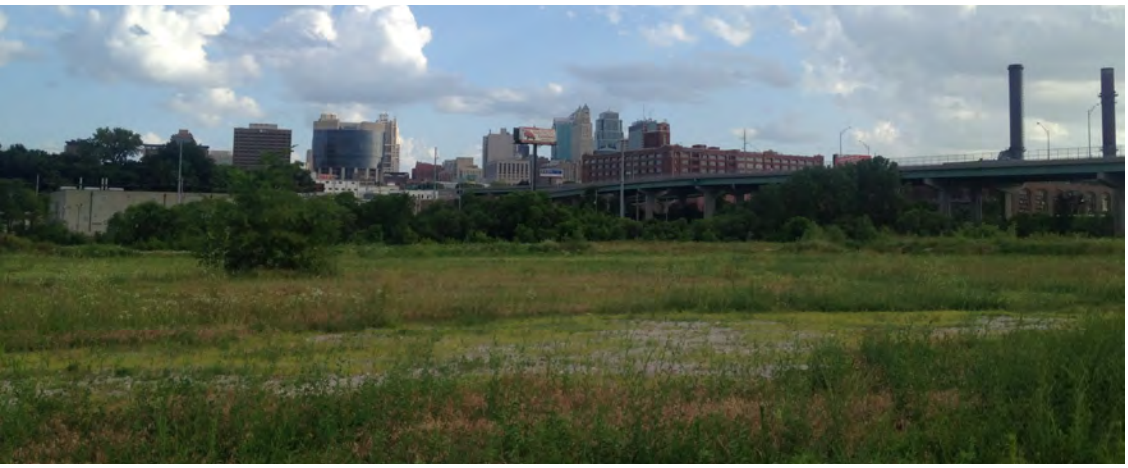
Takeaways for Upper Harbor Terminal

The Pittsburgh Technology Center provides the following takeaways that may apply to the Upper Harbor Terminal redevelopment efforts in Minneapolis.

- As a pioneer in brownfields redevelopment, the PTC leveraged a combination of funding sources, at the federal, state, and local level, to support remediation and initial development. Similar levels of collaboration may be needed for the Upper Harbor project.
- The PTC took advantage of its proximity to and collaboration with two major universities in the Pittsburgh area. While collaboration with the University of Minnesota and other educational partners may be ideal for the ongoing development of the Upper Harbor Terminal project, the same level of involvement is perhaps unlikely. The University of Minnesota already has research park interests in other parts of the Twin Cities region.
- The PTC developed initially as a suburban style office park but in recent years has shifted to include additional retail and restaurant offerings as well as enhanced open space amenities. As office and business parks nationwide continue to diversity to include a greater variety of land uses to serve employees, the Upper Harbor Terminal project should consider integrating retail, restaurants, and other services to complement employment uses in the venture.
- The PTC takes advantage of its adjacency to a major river with a network of walkways and attractive open spaces, including trees and seating areas. Design guidelines help to maintain a consistent brand and level of quality for the project. The City should use design guidelines and a similar implementation process going forward to ensure a consistent level of quality. The City should continue to look for opportunities to include open space and recreational connections with the Mississippi River in development plans for the Upper Harbor Terminal.

Pittsburgh Technology Center Illustrative Master Plan. Source: Pittsburgh Urban Renewal Authority

BRIGHTFARMS HYDROPONICS
Kansas City, Missouri



Approximate site of future BrightFarms facility, Kansas City
Source: Design Workshop, Inc.

Investments by BrightFarms, a New York-based company specializing in the development and operation of hydroponic farms, highlights the potential of using formerly riverfront industrial lands for urban agricultural operations. This profile also highlights additional examples of hydroponic or aquaponic agricultural development from other cities around the country.

Contextual and Background Information

The Port of Authority of Kansas City has marketed approximately 100 acres of developable land, located between the Downtown district of the city and the Missouri River, for over 15 years, and had not landed any development deals to date for the property. The area was once a landfill for construction debris and the former site of a sand and gravel company operating along the river. Kansas City's Richard Berkley Riverfront Park, opened to the public in 1990, encompasses 19 acres directly along the Missouri River and adjoins a good deal of the development property controlled by the port authority. The park includes more than 300 trees, a small natural amphitheater, and a nearly one-mile long esplanade with period lighting. It hosts significant annual events including RiverFest, Kansas City's annual Independence Day celebration.

Project History and Key Components

In March 2013 officials from the Kansas City Port Authority announced a deal in principle to locate a 100,000 square foot hydroponic facility, valued at an investment of $4 million, on a 5-acre parcel located adjacent to the Berkley Riverfront Park. The Port Authority had spent around $12 million to clean up a 55-acre tract surrounding the park. Although the parcel designated for the hydroponic facility, within the 55-acre remediation area, was originally planned for residential development, officials from the Port Authority indicate that the BrightFarms facility will serve as a good buffer between future residential development and a nearby bridge that connects Downtown to the Missouri River. Above all, Kansas City officials have expressed satisfaction that the hydroponic farm has resulted in the first tangible investment along the Berkley Riverfront Park after years of significant delay.

As part of the deal with BrightFarms, the Port Authority will fund part of the infrastructure investment associated with the project, including completion of truck access and electrical service. While the Port Authority and the City did not offer any financial incentives to attract the hydroponic facility, the project is eligible for property tax abatement.

Overall, the BrightFarms facility is projected to provide over one million pounds of fresh produce annually, enough to feed roughly 5,000 people. The project is anticipated to create 100 construction jobs and 25 full-time jobs once the hydroponic farm is completed.

In addition to the Kansas City venture, BrightFarms has launched or is launching hydroponic farm operations in St. Louis, St. Paul, Indianapolis, Bucks County, Pennsylvania (outside Philadelphia), New York City, and Oklahoma City. The

company aims to leverage its expertise and efficiencies in expanding its network of hydroponic operations in the future.

Additional Examples of Hydroponic and Aquaponic Development

The hydroponic farm in Kansas City draws from a number of previous ventures around the country in recent years in promoting hydroponic technology. On average, hydroponic operations produce 1,000 percent more produce per acre compared to traditional methods (growing vegetables in soil). The primary challenge in launching large scale hydroponic operations, until recent years, has involved the significant financial investment required upfront, for structures and the technological infrastructure involved in raising hydroponic food.

Photoshop rendering of BrightFarms hydroponic operation in Kansas City. The Missouri River and the I-35 bridge are located in the distance, and Berkley Riverfront Park lines the Missouri River. Source: BrightFarms webpage

In New York, the 124 unit Arbor House affordable housing complex in the southwest Bronx includes a 10,000 square foot, rooftop hydroponic garden designed to raise vegetables for residents. The project has gained accolades given the environmental benefits of using a rooftop space for a hydroponic garden. In addition, the hydroponic facility, integrated along with an affordable housing complex, helps to provide fresh food for area residents and helps to solve a part of the "food desert" issue impacting this part of the city. The Arbor House project operates as a public-private partnership between the New York City Housing Authority (NYCHA) and Blue Sea Development, the developer of the affordable units.

The City of New York has implemented zoning changes designed to encourage and help facilitate hydroponic developments in the Brooklyn area. Specifically, the city reduced height restrictions on rooftop gardens. Greenhouses installed on top of buildings that do not have residential units are now exempt from Floor to Area (FAR) regulations and height limitations. The City is hoping these changes will encourage smaller developers throughout the borough to experiment with the installation of hydroponic greenhouses on top of a variety of new buildings in the future.

A number of cities have also experimented with promoting aquaponics operations, which involve the raising of fish. The City of Milwaukee, in particular, has provided tax increment financing incentives to promote aquaculture operations. The City of St. Paul recently approved a redevelopment project at the former Hamms Brewery that included operations for aquaponics. Cities have explored the possibilities of using grants from the National Science Foundation, the Department of Housing and Urban Development, the Department of Energy, and the Department of Agriculture to promote both hydroponic and aquaponic operations.

Takeaways for Upper Harbor Terminal

The BrightFarms hydroponic development in Kansas City provides the following takeaways that may apply to the Upper Harbor Terminal redevelopment efforts in Minneapolis.

- Hydroponic farm operations can provide a substantial amount of locally grown food for area residents, using a relatively small acreage. Therefore, a hydroponic operation could integrate along with a variety of other land uses and tenants within the UHT parcels.
- Although hydroponic operations have garnered significant media coverage and excitement around the country, including in Kansas City, the facilities result in relatively few jobs following construction. On average, hydroponic farms result in a number of jobs per square feet on par with other land uses known for relatively low employee per square foot metrics, including distribution centers and similar "box" developments. Therefore, while a hydroponic operation could help to jump start the

An example of a hydroponic facility.
Source: BrightFarms website

UHT development, pursuing hydroponics in the project would likely not help materially in reaching job creation goals for the community.

- While hydroponic operations, again, attract significant media attention and generally positive community goodwill, they do not depend on a particular parcel or location in a community in order to thrive. These facilities could succeed just as well on other vacant sites in a given community, or in a traditional suburban office or business park setting. Therefore, while a hydroponic operation may represent a viable use of a portion of the acreage at UHT, other land uses or tenants may be better able to take advantage of the locational advantages of the site, in terms of freeway access and proximity to the urban core of the metropolitan area.

BUFFALO LAKESIDE COMMERCE PARK

Buffalo, New York

In a metropolitan area that has generally declined economically over the last forty years, Buffalo leaders have championed a new business park on the site of a former brownfield in order to attract new investment. The Buffalo Lakeside Commerce Park provides another example of how public private partnerships can help facilitate brownfield cleanup and business park development.

Project History and Key Components

The site initially produced pig iron for the Buffalo Union Steel Corporation in the early 1900s. But Hanna Furnace Corporation eventually bought the property in 1915. For the early 20th century, the city of Buffalo was known as a steel powerhouse. But when the St. Lawrence Seaway was completed, Buffalo lost its reputation as a hub for steel manufacturing. The Hanna Steel Plant closed in 1982 and it turned into a scrap yard for the following years. The property was abandoned in 1986 and it was left vacant for the following several years. The City of Buffalo acquired the property in 2001.

The Buffalo Urban Development Corporation facilitated the use of various tools, including New York Brownfield Cleanup Program Tax Credits, designation of the area as a New York State Investment Zone, and other economic development incentives. The City of Buffalo, along with the state, and Erie County, as well as private investors, have invested $30 million to date on site preparation and infrastructure construction. Thus far, the project has attracted three main tenants (CertainTeed, Cobey, and Sonwil Distribution) and has generated 400 new jobs for the Buffalo area.

The project has been branded as a "green" business park and includes a substantial public park in the center of the development, to provide open space

Takeaways for Upper Harbor Terminal

- Buffalo Lakeside Commerce Park utilized incentives and tools from a variety of partners at the local and state level. Similarly, planning for Upper Harbor Terminal should consider the full range of possibilities in terms of tools and incentives designed to promote development and job creation at the site in Minneapolis.
- Similar to the majority of comparable projects highlighted in this report, the Buffalo project included a sizeable public park in the middle of the development in order to provide an amenity for office users and to enhance the marketability of the overall project.

Site plan of the Buffalo Lakeside Commerce Park

RIVER NORTH DISTRICT ("RINO")

Denver, Colorado

RiNo represents one of the best examples in the country of how a number of small redevelopment projects and mixed use developments have managed to transform an older industrial neighborhood into a thriving new center of growth. The neighborhood has emerged as one of the hotbeds of creative class tenants and companies and residential growth in the city of Denver. In contrast to many projects around the country that have transformed older industrial areas through large scale efforts, the RiNo area has emerged more organically over the last ten to fifteen years, as one project after another has redeveloped bits and pieces of the overall RiNo district.

Project History and Key Components

The River North district in Denver (known commonly as "RiNo") encompasses an approximately 1.5 square mile area bound by Interstates 25 and 70 on the north and west, Park Avenue on the south, and Lawrence Street on the east. It generally includes a primarily industrial area that lies between the northern edges of Downtown Denver and Interstate 70, and the district (per the name) covers both sides of the South Platte River. The City of Denver has witnessed a boom of redevelopment and gentrification across a number of neighborhoods over the last ten to fifteen years, in all directions. However, in contrast to redevelopments that have focused on previously established residential neighborhoods, the RiNo area has focused mainly on the conversion of older industrial and warehouse space into a variety of residential, commercial, office, and creative space. RiNo has attracted a number of notable projects specifically geared to attract smaller businesses, artisans, companies geared to "creative industries", and unique tenants and building layouts found nowhere else in the city.

The art and creative community in RiNo boasts that the district in particular is a hotbed for architects, art galleries, ceramacists, designers, furniture makers, wineries, breweries, urban agriculture, photographers, and a variety of other artists. It is considered a hot spot in the region for the "makers movement", in which small artisans and small entrepreneurs are utilizing unique work spaces and formats to conduct their work. The neighborhood in particular has attracted interest from companies and interests led by Millennials and Gen X entrepreneurs.

TAXI development
Source: Design Workshop

While RiNo emerged in the 1990s and early 2000s as a lower cost and therefore more attractive area for small artists and businesses to establish operations, in the shadow of Downtown Denver, the area has begun to attract higher-priced and larger mixed-use development efforts. The City has committed significant resources to the emerging mixed-use neighborhood. The City of Denver is developing a two acre park, designed to serve as a focal point for the neighborhood, along the banks of the Platte River. As the city's light rail line expands to the north from downtown, two new light rail line stations will open in RiNo over the next several years,

providing connectivity to the rest of the metro area and to Denver International Airport.

The following key projects have spurred further development and rehabilitation in RiNo, including smaller scale renovations of older homes and conversions of older industrial space into a mixture of urban land uses. These projects have brought even greater attention to RiNo on a regional level and are driving, in particular, significant interest in dining and retail options in recent years.

TAXI development
Source: Design Workshop

TAXI DEVELOPMENT – The TAXI development encompasses 20 acres along the Platte River north of downtown, on the site of an older taxi storage and dispatch facility. Nestled between a bus barn for the regional transit authority and other industrial uses, TAXI transformed the vacant former taxicab dispatch center into 200,000 square feet of office uses. TAXI includes 60 businesses and 400 employees at most recent count. Tenants primarily include architects, design firms, and other tenants focused on the creative and professional services industries. It also serves as one of the city's hubs for new economy tech startups. TAXI began in the early 2000s and has expanded over time to several different buildings. The complex includes a small coffee shop and restaurant to serve employees on site. The project also includes apartment units integrated vertically above offices located on the first floor, and a variety of "live/work" spaces that include space for both bedrooms and for work operations. Overall, TAXI has successfully attracted a wide range of creative firms who have moved to the area in order to take advantage of lower lease rates (compared to the heart of Downtown Denver) and proximity to similar firms in creative industries.

A number of observers have credited the TAXI development for spurring a range of follow-on redevelopment projects and activity throughout RiNo over the last ten years.

The Source
Source: Design Workshop

THE SOURCE – This 26,000 square foot space, encompassing an old foundry building along the main commercial corridor in RiNo (Brighton Boulevard) was designed to serve as a small hub of culinary artists in a common space. The building resembles a

The Source
Source: Design Workshop

small "mall" of different small culinary shops and restaurants, including a small brewery, a coffee roaster, a distillery, a bakery, a wine shop, and three main restaurants. The Source recruited restaurants that represented up and coming food concepts, geared to the use of farm-to-market ingredients and targeting the emerging "foodie" movement in Denver. One of the main restaurants in the Source actually moved to the facility following a number of years of operation as a notable food truck in the city. Today, the Source attracts large crowds on weekends to the various tenants and it is emerging as one of the key hubs of the RiNo neighborhood. The developers of the Source are now moving forward with the construction of a second building to hold culinary artisans over the next few years.

INDUSTRY – This 120,000 square foot collaborative office building is currently under construction in RiNo and will feature three main office tenants as well as a number of boutique and small scale office tenants over the next few years. The design of the office building features open floor plans with common lounges for tenants, 26 foot high ceilings, and facilities for the B-cycle bike sharing program as well as Car2Go, a car-sharing program serving Denver. The high ceilings in the building provide room for the creation of a number of mezzanine lounge areas designed to foster collaboration between the different tenants. The roster of potential tenants for Industry range from high tech startups to professional services firms (including graphic designers, architects, etc.). The Industry building also includes space for a small coffee shop and restaurant to serve tenants and visitors. Industry represents one of the larger developments of office space geared to small and creative businesses in the history of RiNo and will further cement the district as a key hub for "creative class" companies and employees in the Denver region.

Takeaways for Upper Harbor Terminal

- In contrast to other examples of industrial redevelopment from around the country, RiNo has grown without large scale incentives or redevelopment efforts coordinated by one entity. Instead, pioneer developers have converted buildings or created new space on a parcel by parcel basis. Over time, the creation of a sufficient base of redevelopment has spurred the district's momentum on its own. RiNo shows that networks of local developers and local businesses can stimulate redevelopment as a community without larger scale efforts (orchestrated by a government agency or a larger scale developer). At the same time, the City of Denver has been supportive of ongoing redevelopment in the area, and city and county leadership continue to market RiNo to prospective companies eyeing the region for expansion.
- As RiNo has continued to evolve, the attention of the community has now turned to the river with the development of a key central park (2 acres) to serve the area. However, the Platte River is a relatively small stream, and the district has largely emerged around key developments and conversions of old industrial space along major arterials, as opposed to a focus on the river itself.
- The district provides a good example of how creating sufficient "buzz" in the local creative community can create sufficient momentum to attract commercial and office tenants as well as food and beverage operators, and new residents. Through the collective efforts of a number of projects, RiNo is quickly emerging as one of the most desirable areas for smaller, cutting edge companies in the metro area.
- While RiNo offers a wonderful success story for industrial brownfield redevelopment into a vibrant arts district, attracting members of the "Maker Movement," there are significant differences between the RiNo site dynamics and the UHT site dynamics. The RiNo site is located very close to downtown Denver and surrounding redevelopment has created a buzz of activity for 10-15 years. The site also had several industrial buildings of character that could be redeveloped for other uses. The UHT site is disconnected from downtown and redevelopment activity, lacks buildings of character to reuse, convenient public transit service, and amenities that might draw these types of uses to the site.

REED STREET YARDS

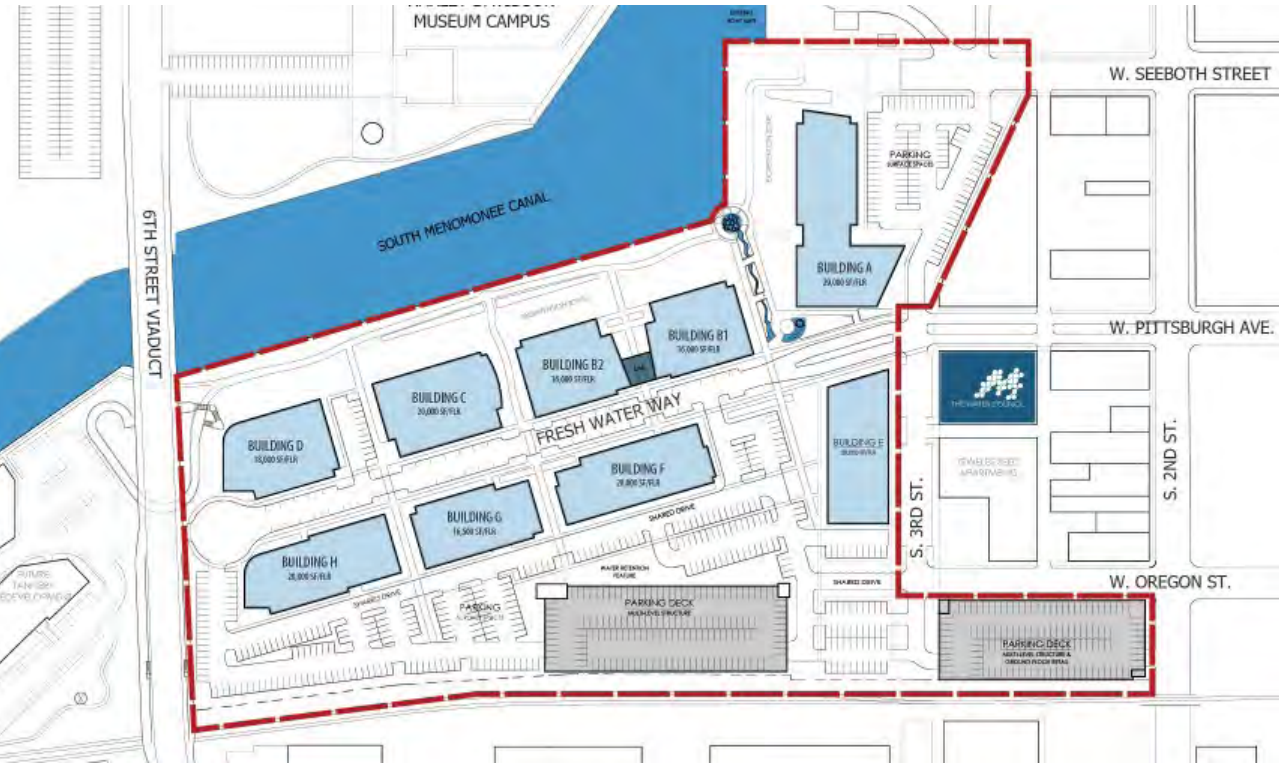
Milwaukee, Wisconsin

Reed Street Yards is emerging as one of the largest examples of an "eco-indusrial park" in the Midwest and has the potential to transform a significant part of the southern part of Milwaukee into a notable business and research park, with an environmental focus.

Project History and Key Components

Reed Street Yards includes a green technology and business park on a 17 acre site in the south part of Milwaukee, on the site of a former trucking firm. The project is anticipated to eventually include one million square feet of space, geared specifically to companies that specialize in water technology. The City of Milwaukee has emerged as a global focal point for water related businesses. The city currently includes over 150 businesses oriented around water-related business, education, and research.

The development plan for Reed Street Yards includes a comprehensive set of green, sustainable building and development standards, tied to LEED standards for new development. The project will include an integrated stormwater systems, a series of bioswales and rain gardens, and a "purple pipe" system designed to accommodate grey stormwater reuse in the project. Reed Street lists the Milwaukee Water Council and the Metropolitan Milwaukee Sewer District as key partners in efforts to bring green power and other green technologies to the project. At buildout, Reed Street Yards will include bike and pedestrian connections to the Henry Aaron State Trail, the 6th Avenue Viaduct, and other neighborhood parks, as well as a green-oriented central public plaza.



Site plan for Reed Street Yards

The City of Milwaukee's Redevelopment Authority has pledged $7.1 million in financing, anticipated from tax revenues generated as part of a Tax Increment Financing (TIF) district created for the project, to finance a variety of improvements associated with the project. Specifically, the city is anticipated to provide $5.1 million in business

Newly constructed pedestrian connection from Reed Street Yards site to 6th Avenue Viaduct

incentives, specifically targeted to attract green or water-related tenants to Reed Street Yards. In addition, the City is pledging $660,000 in funding for street extensions, $400,000 for public spaces, and $100,000 for the creation of green spaces (green roofs) on new buildings.

Construction of the first building at Reed Street Yards, an 80,000 square foot facility geared to water-oriented tenants, began in spring 2014 with occupancy expected by 2015. Information is not currently available concerning the roster of tenants in this new building.

Takeaways for Upper Harbor Terminal

- Reed Street Yards represents one of the best examples in the Midwest and the country of a project that integrates a variety of green infrastructure strategies, ranging from bioswales and rain gardens to integrated stormwater systems. Regardless of the degree of commercial success the project ultimately achieves, it provides a good template for how to design an "eco industrial park" in an urban setting.
- The project represents a good example of a venture that orients around a specific group of industries or businesses, in this case the emerging water-related industries in the City of Milwaukee. By attempting to cluster a similar group of tenants and companies, the Reed Street Yards project is attempting to create a particular brand or image for the project over time.
- The project provides another good example of how TIF and other targeted public investments can be made to provide for infrastructure in these types of urban office developments. Importantly, the city is targeting business incentives for the attraction of tenants that match the model and vision for the Reed Street Yards project.
- Because the project is just beginning and construction is just underway on the first building, the project does not yet provide any lessons learned or evidence in terms of its degree of business success. Cities around the Midwest will be following the progress of the Reed Street Yards project over the next several years to observe its progress and degree of success, in order to glean lessons learned for their own efforts.

COMPARABLE PROJECTS KEY TAKEAWAYS

The analysis of a range of comparable projects around the country reveals a number of common takeaways that apply to the ongoing efforts to redevelop the UHT area in Minneapolis. While every project has its own set of unique factors and challenges impacting development, the following takeaways reflect a consistent pattern across a range of redevelopment projects in other cities that would apply to the UHT effort. As the City and its partners move forward with ongoing planning and development activities, these takeaways will help guide decision making and investments.

- The integration of park and open space amenities is becoming fairly standard, both in terms of the execution of brownfield redevelopments, as well as in the creation of new "greenfield" office and commercial developments. In contrast with patterns of past decades, tenants in new commercial or mixed-use developments tend to expect at least some form of park or open space amenities for employees and/or residents. These assets may include trails, exercise areas, small parks, or other public plaza or gathering areas. The precedent projects all took advantage of the natural features present in their respective areas. In particular, brownfield or similar redevelopment efforts near major rivers maximized the benefit of this adjacency by developing park and trail systems along rivers and used these features as key amenities to help attract investment and tenants.

- Successful redevelopment or brownfield projects coordinated by public entities such as cities have tended to use formal design guidelines and master planning documents to help coordinate and guide the quality of development expected as projects progress. The design guidelines address the full range of urban design parameters, from parking to building setbacks to facades and other aesthetic qualities. The design guidelines have helped to communicate a more consistent image or brand for particular developments.

- Many cities or development authorities have assisted with land acquisition, including the acquiring of additional parcels beyond the original scale of particular redevelopment zones, to help facilitate development deals. Public agencies have also used land acquisition to help increase the size of various redevelopment projects in order to reach a certain size that is more marketable to potential investors or tenants. As with any redevelopment effort, the acquiring of land is often a critical hurdle that prevents many ventures from moving forward.

- The cities and public agencies profiled in the analysis used a mixture of funding sources to help provide resources and incentives to support redevelopment. The general strategy is to use a "kitchen sink" approach that uses whatever funding tools are available to help support development. In some cases, tax increment financing or brownfields grants provided the most substantial financial support for redevelopment efforts. In other cases, a mixture of smaller streams of funding from state or local sources provided gap financing. The key is that cities should consider the full suite of funding and incentives in creating financial packages to support infrastructure development and business attraction and retention. Incentives ranging from property tax abatement, to historic property incentives, to small business financing, should be considered. While some projects obtain the majority of their funding from a primary source, many other redevelopment projects cobble together a patchwork of financial resources and incentives from a variety of sources.

IV. Redevelopment Alternatives

INTRODUCTION

Purpose of the Alternatives

The redevelopment alternatives provide an evaluation of feasible redevelopment potential of the Upper Harbor Terminal site, while balancing the desire to incorporate park lands and a parkway through the site. The purpose of the redevelopment concepts was not to arrive at a preferred plan, but rather, to gain a better understanding of the potential to develop the site, provide quality park space and parkway, and the costs and benefits associated with each alternative. Each alternative proposes different solutions for redevelopment including uses and densities, park and parkway planning, and historic preservation while attempting to address core goals and objectives for redevelopment of the Terminal site. Elements from each alternative could be mixed together to reach a preferred direction for redevelopment of the Terminal site.

Design Process

The process included a series of monthly meetings with the Advisory Team from March, 2014 to October, 2014. Early meetings helped to establish project goals and objectives and discuss key opportunities and challenges to redeveloping the Terminal site. Early stages of the planning process included an inventory and analysis of previous and related plans and studies, transportation/transit, utilities, and physical site conditions. Discussions with Xcel Energy provided a better understanding of the potential to relocate the power transmission lines and the costs associated with relocation. An ALTA survey of the Upper Harbor Terminal site was prepared by the consultant team to provide an accurate base map to plan from.

In May, 2014, the planning team conducted a day-long Design Charrette, which provided the creative format for the consultant team to generate

preliminary redevelopment concepts and discuss them with Advisory Team members. These alternatives were informed by the inventory and analysis and the comparable projects analysis findings. The results of the Design Charrette provided the planning team with a basis for further study of redevelopment alternatives. Subsequently, these alternatives were more fully developed by the consultant team and reviewed with the Advisory Team for planning input and direction.

Developer Input

The planning team conducted meetings with local developers to review and discuss the relative merits of each redevelopment alternative. The participants in these meetings included members of the consultant team, Advisory team and a select group of local developers with expertise in the areas of office, industrial, commercial, residential and mixed-use development. A summary of comments received from the developers includes the following:

Developer Roundtable Input

- Access to I-94 is currently the most valuable asset to this site.
- The promise of the riverfront address, a future parkway and park amenities are also an asset to the site. Until those amenities are developed and better connections are made, however, the river is not seen as the asset it could be.
- The lack of transit service to the site is a barrier to development interest, particularly for residential and/or office development.
- The transmission lines must be relocated if residential and/or office development were contemplated here.
- The site might be too narrow for traditional light industrial development. 300 feet is seen as a minimum depth required, but more depth is desirable. There is a concern regarding truck movements on this site.
- It could be possible to attract smaller scale, entrepreneurial businesses, but those types of businesses aren't willing to pay the costs for new buildings and infrastructure.
- The greatest asset to this site is that it is one large, contiguous area in the City of Minneapolis and these sites are difficult to find.
- There is no demand for traditional office or residential development in this area. Demand for these uses would be a long way off and would require significant improvements to the surrounding infrastructure, better connectivity, transit service, and amenities.
- The City should look long term regarding the future development of the UHT site. The City may have to market the site to pioneers (non-traditional) developers.
- Create a destination (that may be park-related) at Dowling Avenue N. and the riverfront. This might be an art park, a park with a restaurant, or some other "3rd Place" concept that creates a vibe in the area, connects North Minneapolis neighborhoods to the river, and gets people to the river and interested in this site.
- Further investigation is required to get a better handle on the costs associated with preparing the site for development – soil remediation, potential historic structure preservation and reuse, relocation of the power lines, and improving connections to the site.

Additional Developer Input

- "Curation" of the right mix of uses is critical, as is having a critical mass of complementary uses and some nearby market (either residents or employees).
- While a city needs wonderful green parks, it also needs variety, and a more gritty/urban attraction also has its place.
- People want direct access to the river/water, so that should be included.
- Envision a mix of uses that would include an interesting anchor bar/restaurant, but also could include potential other uses such as a food truck court, festival/market area, a tram ride around the site, a zipline and/or skyride, water slide in the conveyors, an educational center that could use the dome acoustics to teach about sound or a fish habitat dug into the base of a dome, an amphitheater, aquaponics to supply the restaurant, water taxi, fishing piers, something on a barge, artist lofts and photography studios.
- 200 to 300 parking spaces would likely be needed to support a restaurant/bar.
- A long-term lease would be a viable alternative to a purchase.
- Among the questions a developer or potential tenant would want answered would be the structural condition of the existing structures (in the event that they were to be reused), whether the smells from previous uses could be removed, whether one could dig into the floor under the existing domes, whether windows could be added to the structures, whether the rails could be removed or would they be a barrier to site access.
- Consider the possibility of encouraging temporary activities that would activate the site in the interim before it can be redeveloped.
- The site has very intriguing potential. While it will be in competition with many other sites, the possibility of some good-sized parcels in Minneapolis, with a riverfront amenity and good freeway access, will have appeal to a niche market. If the City is willing to be selective and wait for the top tier developments (i.e., jobs density/quality, 21st century operations with good image/design), it may need to be patient. The lack of strong transit and the presence of the rail line (e.g., vibrations) will somewhat limit the market potential.
- There is not likely much market potential for the existing buildings or for much retail, but there may be some potential and value for a destination river-related restaurant.
- The park amenity will help attract top tier businesses. There may be developers who would see the long-term potential and be ready to respond to an RFP before the park is a reality.
- Consider a master developer that would take on marketing and developing the entire site. There may be some interest in that approach.
- Developers will want to know the environmental condition of the site and, if the City hasn't already cleaned it, in what condition the site will be delivered.

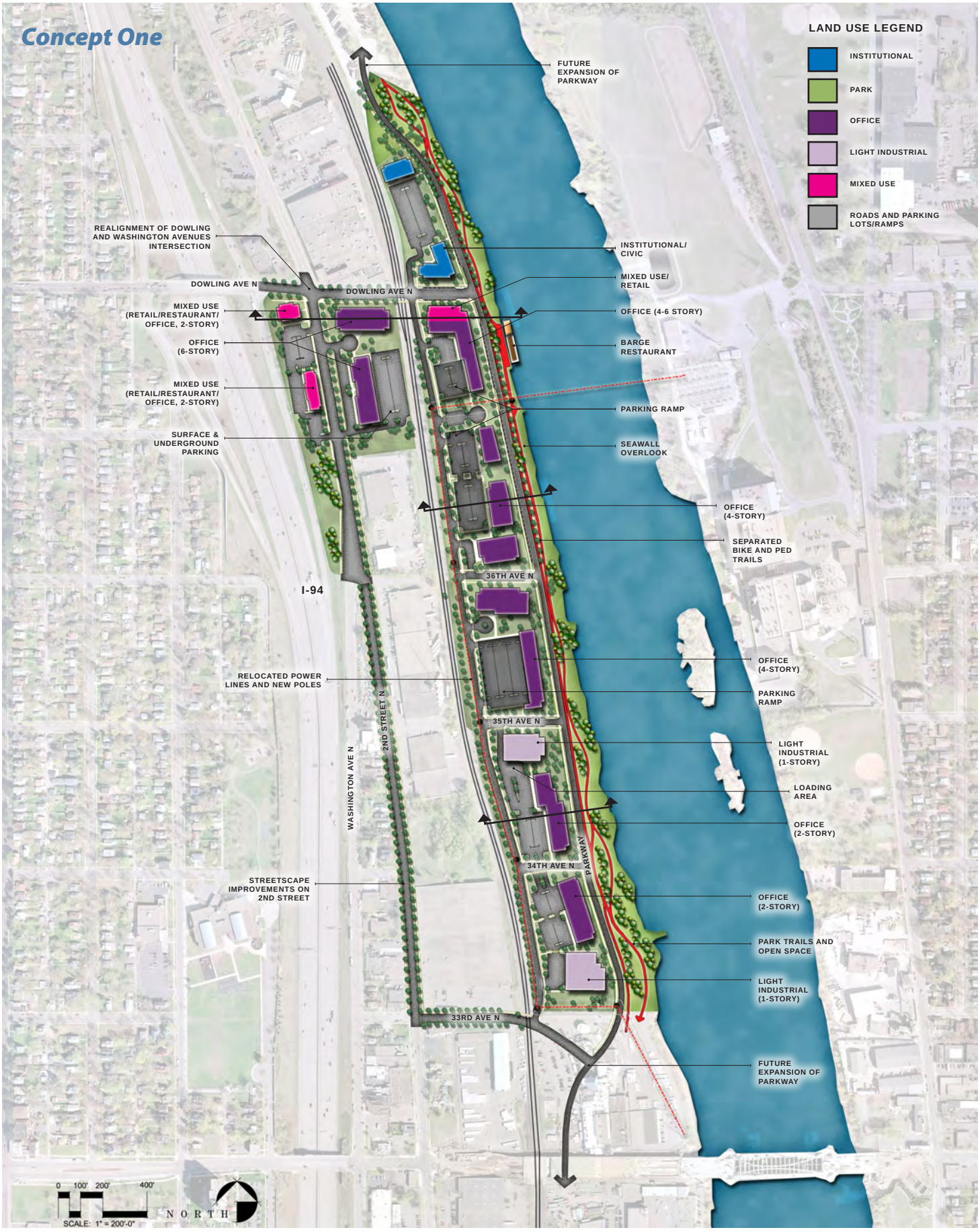


Figure 4-1. Concept One Illustrative Plan

CONCEPT ONE
Maximize Development Potential

Concept One emphasizes redevelopment potential and job creation on the Terminal site. The concept proposes a balanced mix of land uses, including office, light industrial, and a limited amount of retail and restaurant to help support the future tenants of the redevelopment. It promotes the idea of higher quality development fronting Dowling Avenue N. and creating a unique destination at Dowling Avenue N. and the riverfront. This destination is seen as critical to attracting and retaining development interest along the riverfront, as well as offering a future identity for the Terminal site.

Restoring the street grid and integrating "green fingers" of open space provide enhanced connections to the riverfront. Along the river's edge, this concept proposes to preserve the seawall as an historic and interpretive site element while also providing needed space for the parkway to pass through the site. Relocation of the transmission lines along the rail lines is a key infrastructure investment critical to attracting intensive office development along the riverfront.

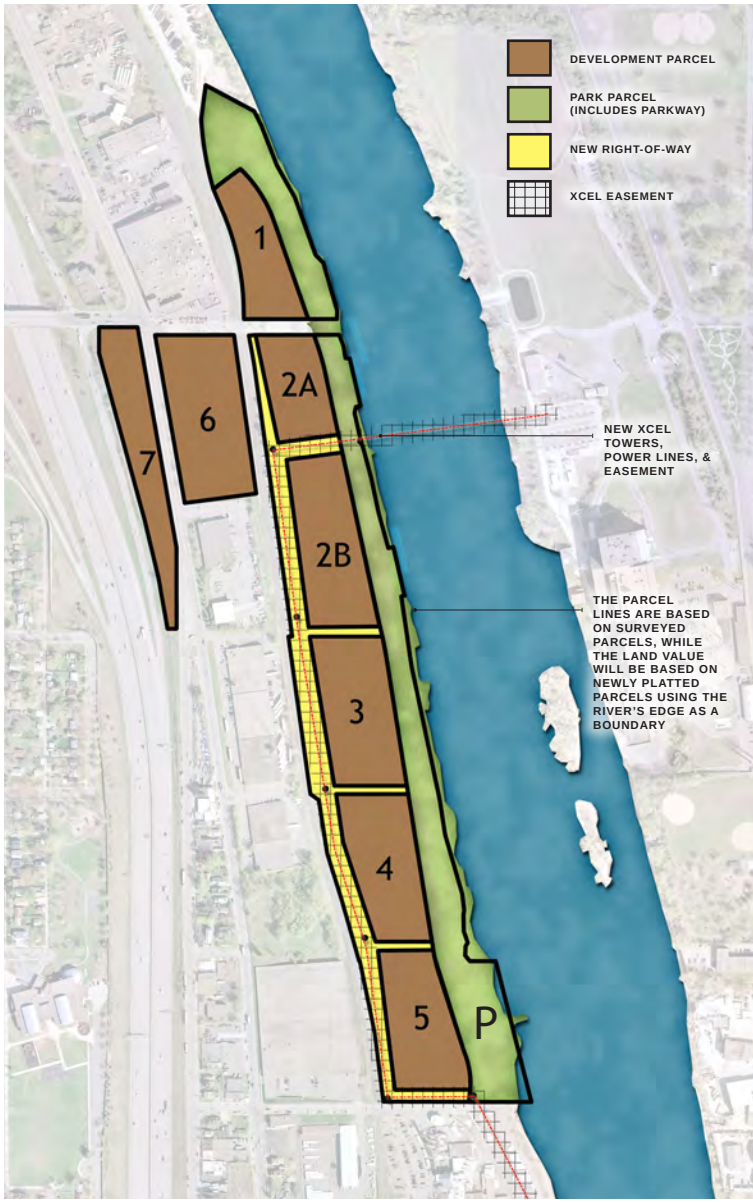


Figure 4-2. Concept One Parcel and Easement Plan

Specific plan recommendations include the following:

Land Uses

- Emphasize development potential and job creation
- Provide a balanced mix of uses, including office, light industrial, retail, restaurant and park amenities
- Capitalize on access to I-94, creating a mixed-use core along Dowling Avenue N.
- Create a unique destination at the east end of Dowling Avenue N. at the Mississippi River edge with outdoor dining patios and public art
- Include a barge along the seawall – potential restaurant/bar ("The Barge")

Parks/Parkway

- Reforest the river's edge (except at the seawall)
- Enhance the tree canopy to reduce heat island
- Locate park land on the north end of the site and along the river's edge
- Include a river-oriented destination that could be park related or some other civic use in Parcel 1
- Provide single and multi-use trails along the parkway and parks
- Provide opportunities for overlooks along the riverfront
- Preserve the seawall for historic/interpretive purposes and to provide the necessary space for the parkway

Access and Circulation

- Develop a backage road (minimum 30' width) for truck circulation/loading/delivery and employee access to development parcels
- Restore the street grid between the backage road and the parkway
- Provide a parkway that is not a truck route along the riverfront
- Provide access to development sites along Dowling Avenue N. and 33rd Avenue N.
- Maintain existing railroad crossings at Dowling Avenue N. and 33rd Avenue N.
- Provide sidewalks along public streets with connections to the parkway trail system
- Provide well-marked pedestrian crossings at roadway intersections

Parking

- Provide on-street/parallel parking where feasible
- Incorporate structured parking (parking ramps) to allow greater density where feasible
- Consider underground parking to allow greater density on sites west of rail line, where topography and groundwater levels allow
- Limit views of parking facilities along the riverfront by placing parking behind the primary buildings

Building Placement and Orientation

- Build street-fronted architecture, particularly along Dowling Avenue N. and the parkway
- Place and orient buildings so that view corridors to the river are preserved and enhanced
- Provide several opportunities for "green fingers" (rain gardens) to penetrate the built development
- Locate larger buildings near Dowling Avenue N. to create a gateway from I-94 to the river

Utilities

- Extend sanitary sewer laterals as appropriate to serve future development. These facilities may run parallel to the large trunk line under the backage road or parking lot at the rear of the buildings or they may be able to connect laterally directly into the trunk sewer
- Extend a water main loop south from 36th Avenue N. to 33rd Avenue N. Locate the water main in the utility corridor next to the sanitary sewer that falls under the backage road or parking lot at the rear of the building.
- Engage private utility companies in extending appropriate facilities as land develops or to correspond with construction of roadway and build out of public right of way corridors.
- Relocate the Xcel Energy power lines and towers along the railroad line to enhance development potential at the Terminal site

Example of a rain garden

Stormwater Management

The following recommendations for stormwater management are the same for all three development concepts:

For this project, due to the smaller parcels and competition for land uses between the park and development, the approach to stormwater management favors those types that do not use a significant amount of open space land for treatment, such as a regional pond or treatment basin. Underground surface water management storage/treatment options or lot scale Best Management Practices (BMPs) are expected to be more cost effective because of the value of the land. In addition, it will be easier to phase smaller, individual surface water management improvements as development occurs.

Parking Lots

We recommend that each parking lot have their own BMP to treat the 1" of runoff. This allows parcels to be developed independently of each other and will allow the owners to be creative and use BMPs that best fit their building use and landscaping plans. Also, each owner would be responsible for onsite treatment maintenance and phasing issues of construction and maintenance of a more regional system would be avoided.

This can be done by utilizing a combination of Best Management Practices (BMPs):

- infiltration trenches
- porous pavement
- rain gardens
- drainage swales

Buildings

Building treatment should be focused around a rainwater harvest program and reduction of impervious surfaces in the use of green roofs. Water from the roofs is relatively clean so it can be stored and used for irrigation on the site or for in-building use. Each building should then consider using LEED building criteria for rainwater harvesting and consider reuse of rainwater as part of a separate plumbing system for some of the sanitary water uses. This application is well suited for light industrial development where the amount of sanitary facilities use is limited.

Although regional systems could be developed, the infrastructure required would be difficult to determine at this time. Prior to any preliminary development plans, the best assumption to use at this time is on-site treatment for each parcel. This is recommended as the most consistent approach to storm water management for the development.

Example of a vegetated drainage swale in an urban context

Roadways

Streets provide more of a challenge as they are City owned and also next to the river. We assumed flow-through structures for pre-treatment, combined with other BMPs, such as rain gardens, porous pavers, or infiltration/tree combinations, that could be incorporated into the landscaping. The runoff would then direct discharge to the current storm sewer systems through the property or directly into the river as rate control should not be an issue. The amount of additional flow to the Mississippi River is assumed to be insignificant and rate mitigation would not be required.

Example of a green finger through development

Other Site Considerations

Other options for this site include incorporating BMPs that would help protect the riverbank such as the use of native landscaping, vegetated buffer strips, and review of how natural vegetation could provide shore land stabilization. Due to the proximity to the river, a balance will need to be reached between using BMPs next to the river and whether they are "eyesores" or are truly amenities.

The actual design for any surface water management treatment option will be dependent on the type of underlying soils. Infiltration of water can occur if soils meet a granular, drainable criteria. If not, the use of engineered soils, and filtration design methodologies will be required.

Figure 4-3. Concept One - North Site Section-Elevation (West)

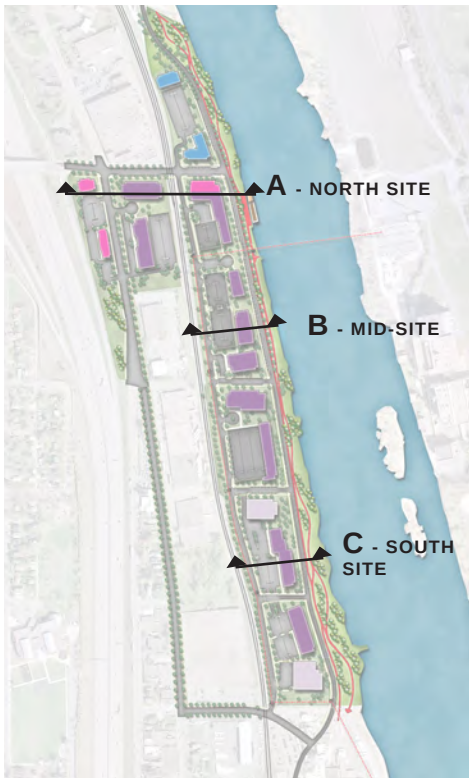


Figure 4-4. Concept One Section Key Plan

Section-Elevations

The site section-elevations on this and the facing page are meant to be illustrative only and offer a sense of building scale, orientation to the street, and relationship to the river.

Figure 4-3b. Concept One - North Site Section-Elevation (East)

Figure 4-5. Concept One - Mid-Site Section-Elevation

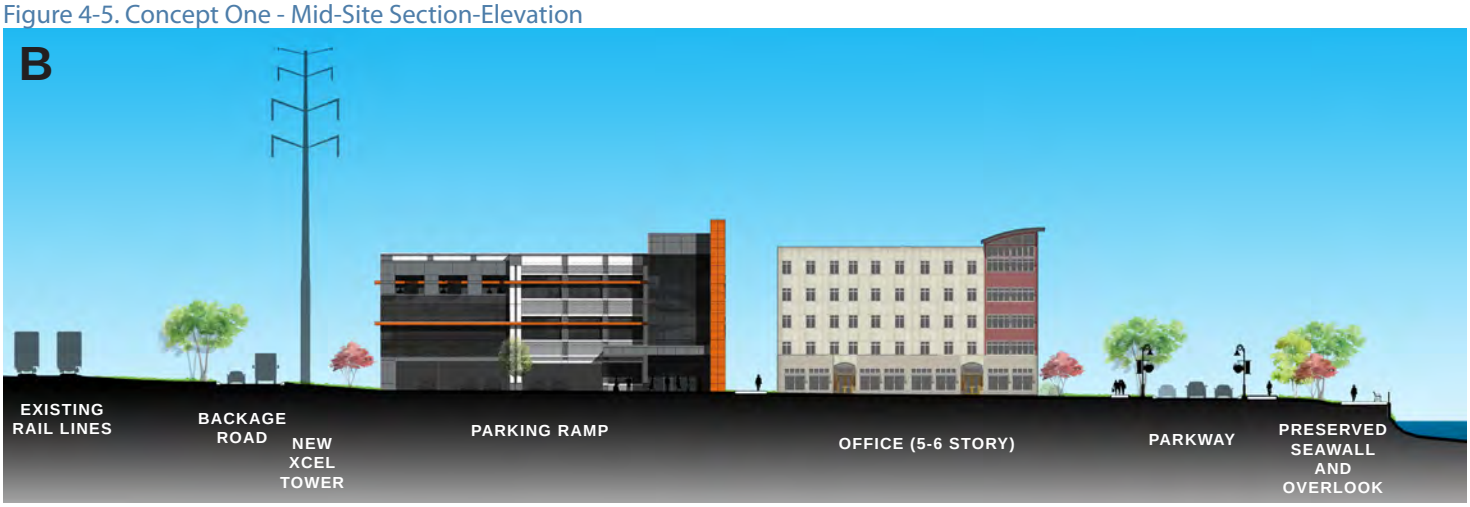
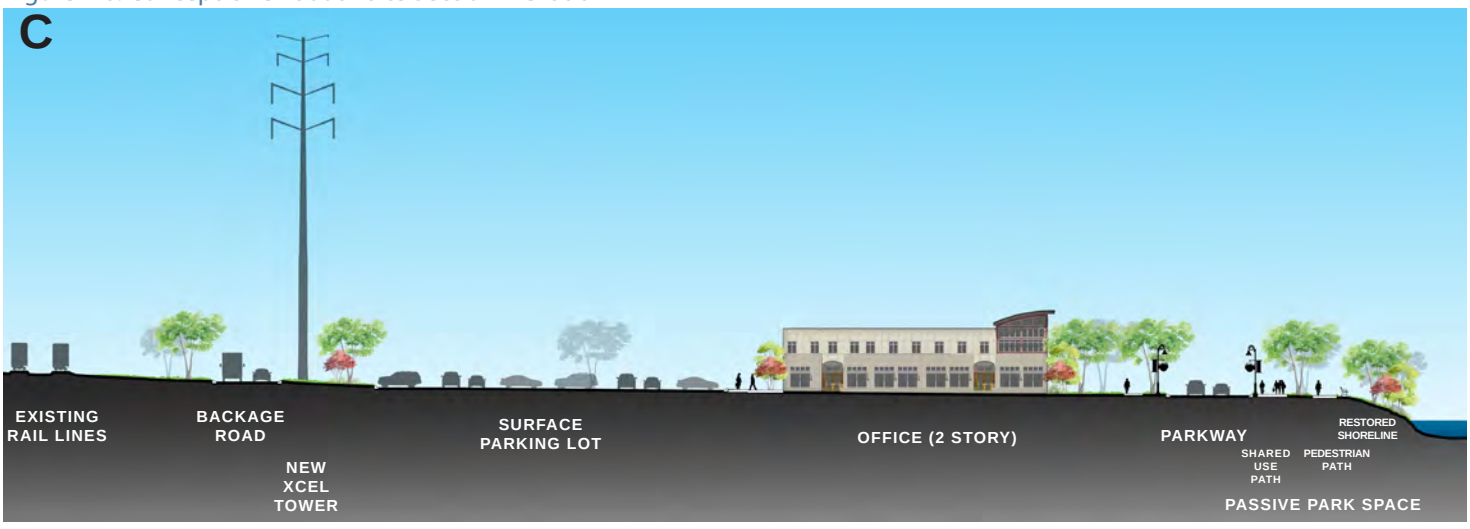


Figure 4-6. Concept One - South Site Section-Elevation



CONCEPT ONE DEVELOPMENT TABLE AND ACREAGES

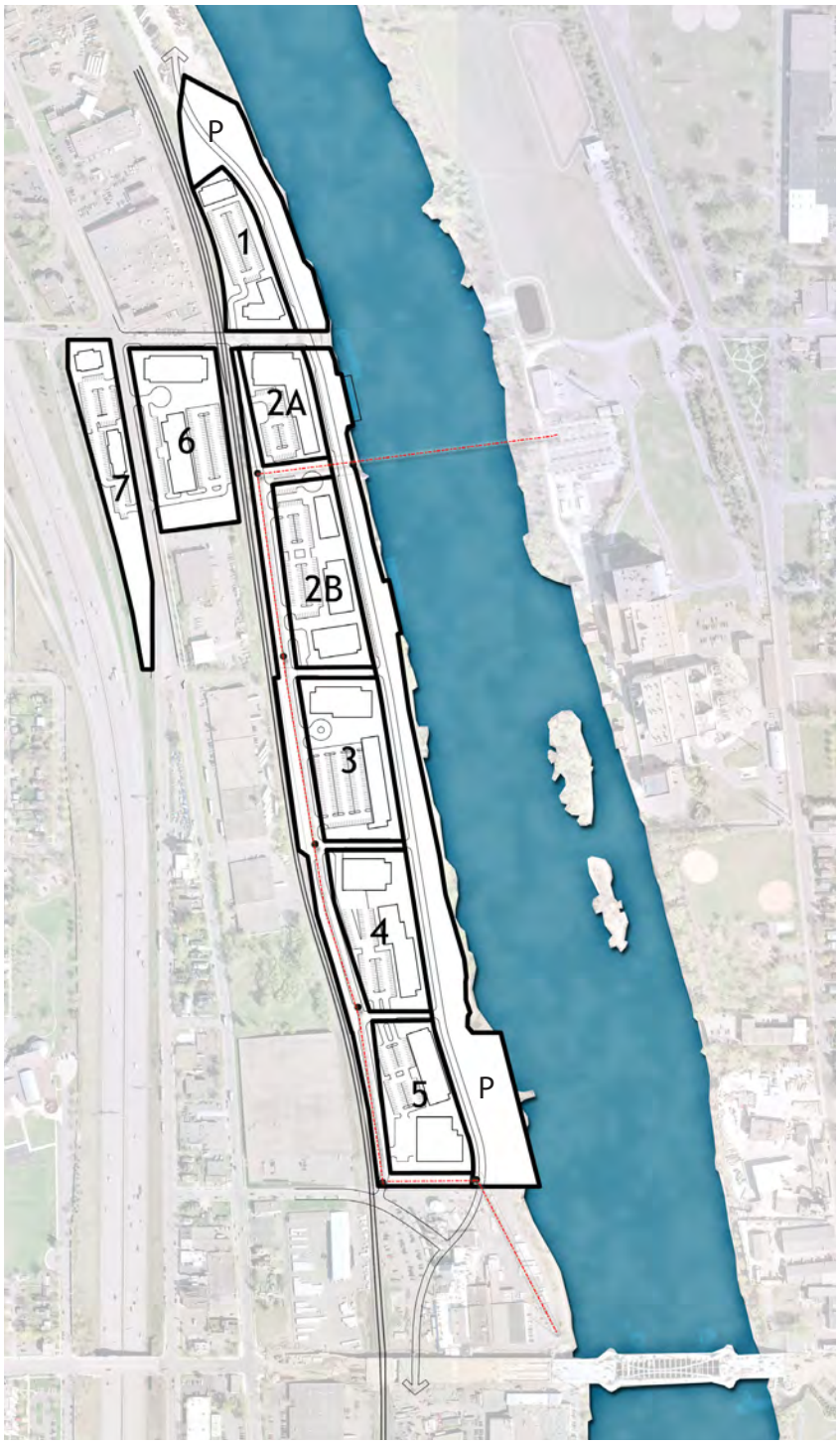


Figure 4-7. Concept One Parcel Plan

Table 4-1. Concept One
Maximum Development Potential, Preserve Seawall

						DEVELOPMENT LAND USE							
PARCEL #	DEVELOPMENT ACREAGE	OTHER	PARK (INCL. PARKWAY AND TRAILS)	PUBLIC ROW ACREAGE	TOTAL BLDG AREA (SF)	OFFICE (SF)	LIGHT INDUSTRIAL (SF)	RETAIL (SF)	INSTITUTIONAL/ CIVIC (SF)	BLDG HT/ STORIES	PARKING TYPE	PARKING ASSUMED	POTENTIAL JOB CREATION
1	2.8				70,500				70,500	3 STORIES	SURFACE	212	212
2A	2.5				120,900	80,600		40,300		3 STORIES	RAMP	839	403
2B	4.4				226,000	226,000				4 TO 6 STORIES	RAMP	678	904
3	4.3				238,000	238,000				4 TO 6 STORIES	RAMP	714	952
4	4.0				79,000	58,000	21,000			1 STORY	SURFACE	211	253
5	3.7				72,500	45,000	27,500			1 STORY	SURFACE	183	208
6	5.0				293,400	293,400				6 STORIES	UNDER-GROUND & SURFACE	880	1,174
7	3.6				31,800	15,900		15,900		2 STORIES	SURFACE	111	95
P			13.4										
ROW (BACKAGE RD/GRID)				6.2									
TOTAL	30.4		13.4	6.2	1,132,100	956,900	48,500	56,200	70,500			3,828	4,200
TOTAL ACREAGE	50.0												

NOTES:

1. THE SURVEYED PARCELS DO NOT FOLLOW THE RIVER SHORELINE. NEW PARCELS WILL BE PLATTED TO DETERMINE LAND VALUES.

2. PARKING ASSUMPTIONS ARE BASED ON CURRENT REAL ESTATE STANDARDS. THESE NUMBERS ARE GREATER THAN CITY ZONING REQUIREMENTS, AND COULD BE REDUCED WITH IMPROVED TRANSIT CONNECTIONS AND OTHER TRAVEL DEMAND MANAGEMENT STRATEGIES.

ASSUMPTIONS

	Job Creation Potential	Parking Assumed
Retail/Restaurant	2 jobs/1,000 sf	4 stalls/1,000 sf
Light Industrial	1 job/1,000 sf	1.75 stalls/1,000 sf
Office	4 jobs/1,000 sf	3 stalls/1,000 sf
Institutional	3 jobs/1,000 sf	3 stalls/1,000 sf
Park	N/A	varies or shared with other uses

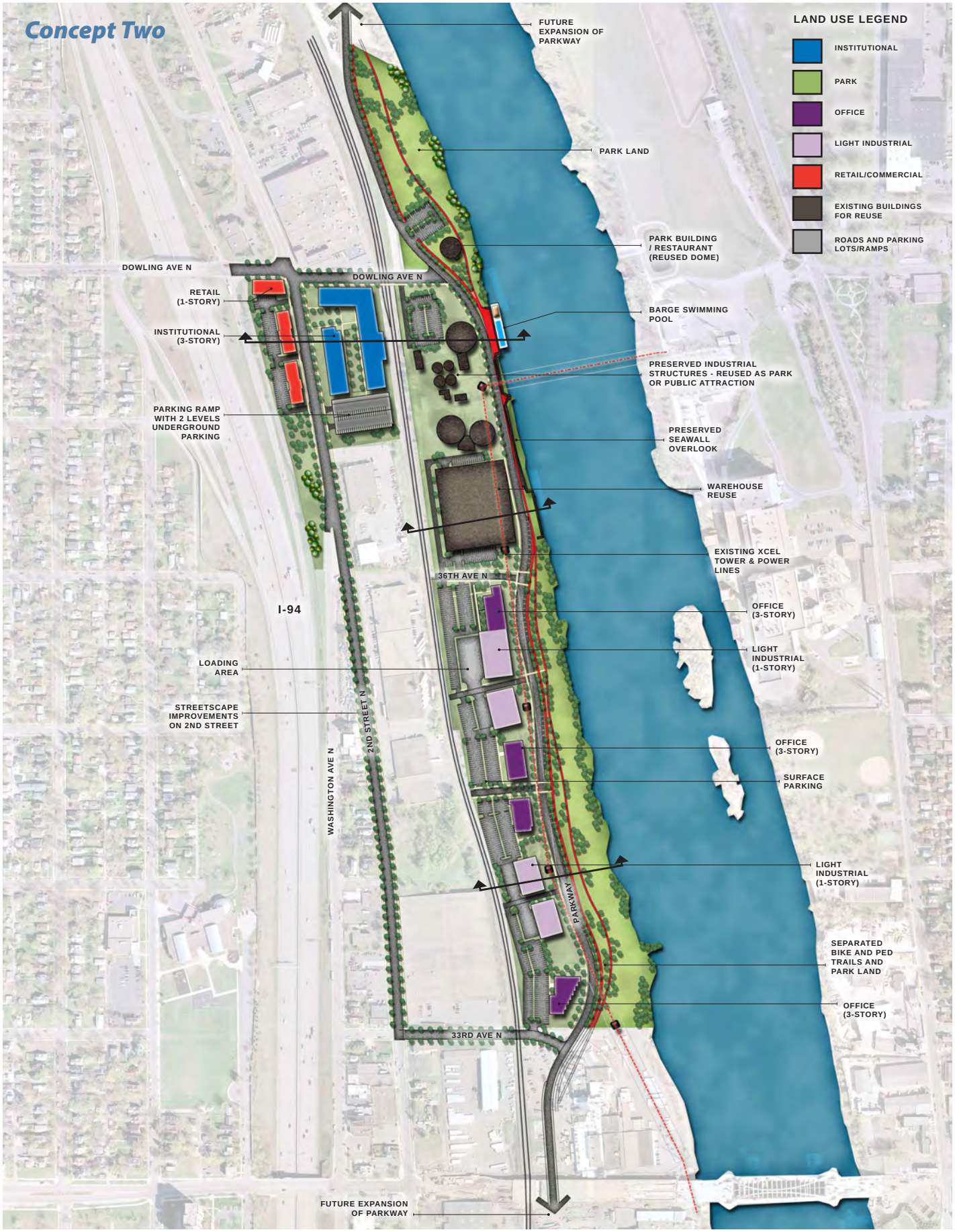


Figure 4-8. Concept Two Illustrative Plan

CONCEPT TWO

Preserve and Reuse Potential Historic Structures

Key features of Concept Two include the preservation of potentially historic structures (domes, seawall, conveyors, etc.) and the reuse of these structures for park-related facilities or for private development purposes. The need to preserve these structures and the feasibility of reusing them requires additional study. However, for the purposes of this study, Concept Two looks at preserving them for park-related uses such as a recreation center, interactive play structures, mini-golf course, art park, ropes course, swimming pool barge, and other potential park programs. With this in mind, Concept Two offers the greatest amount of park land.

Development focuses on office and light industrial uses along the parkway, south of the preserved structures/park-related features. West of the rail lines, the concept looks at a potential institutional use to provide a mix of activities in the area and to enhance the riverfront park destination at the terminus of Dowling Avenue N. Mixed retail uses are identified at I-94. These should be high-quality retail and restaurant spaces that support future redevelopment in the area.

This concept explores the idea of leaving the existing transmission towers and lines in place. While this has some cost saving implications, it limits development parcel sizes and potential land use types. Due to limited development parcel depths, the parkway is planned to accommodate truck and auto traffic access to development parcels.

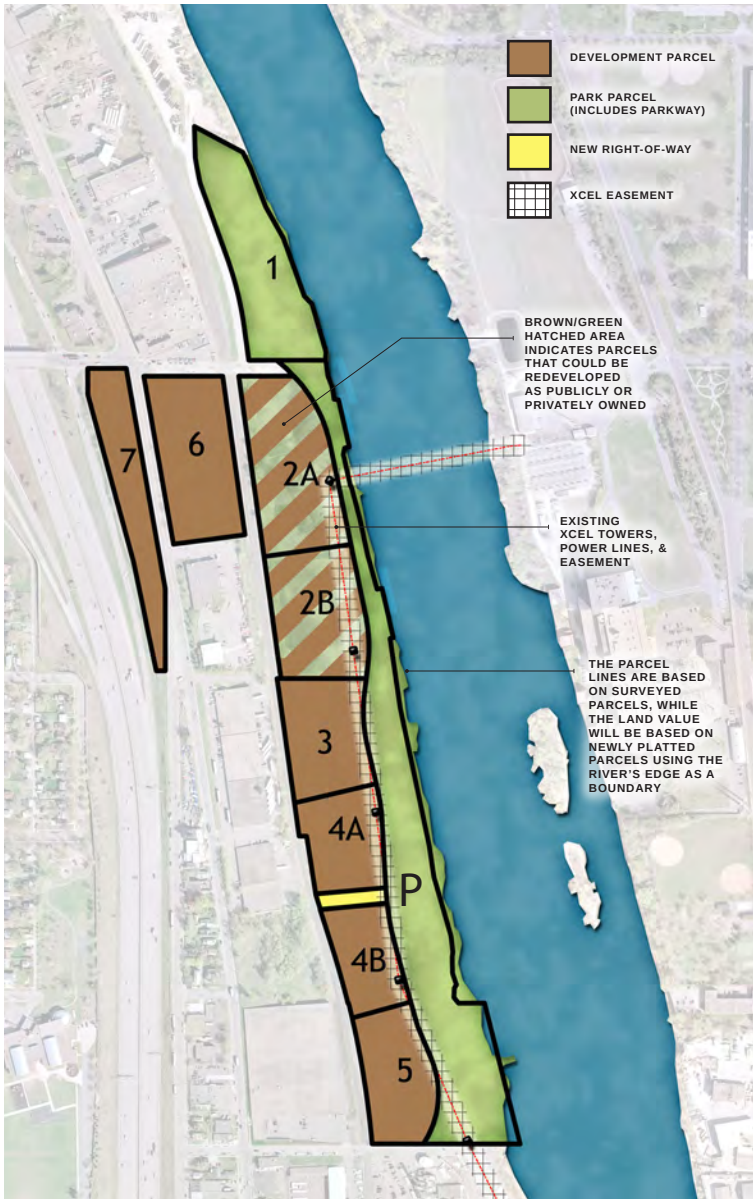


Figure 4-9. Concept Two Parcel and Easement Plan

Specific plan recommendations include the following:

Land Uses

- Consider the preservation and reuse of potentially historic structures for park-related uses
- Consider civic and/or institutional uses at Dowling Avenue N. and Washington Avenue N.
- Maximize park lands while redeveloping the southern and central portions of the site to office and light industrial uses
- Maintain the existing seawall for historic interpretation and to provide space for the parkway adjacent to the river's edge
- Create a unique destination at the terminus of Dowling Avenue N. and the Mississippi River edge (ie. Sea Salt or Tin Fish)

Parks/Parkway

- Preserve several structures existing on the site, including the large warehouse, domes, and elevators for potential reuse as park and recreational facilities. Potential park-related uses – art park, industrial sculpture, interactive play sculptures, mini-golf, ropes course, swimming pool barge tied to the seawall, skate park, event spaces, etc.

- Preserve the seawall for historic/interpretive purposes and to provide the necessary space for the parkway
- Allow the river's edge to naturally re-vegetate except along the seawall
- Provide single and multi-use trails along the parkway and parks
- Provide opportunities for overlooks along the riverfront
- Enhance the tree canopy to reduce heat island

Access and Circulation

- Create a parkway that accommodates truck and automobile traffic to access development parcels (ie. no "backage" road)
- Include spur roads and driveways to access parking lots and loading docks at the rear of buildings
- Provide fire access within the parking lots on the non-river sides of the new office and light industrial buildings
- Connect 33rd Avenue N. to the future parkway at a T intersection
- Maintain existing railroad crossings at 33rd Avenue N. and Dowling Avenue N.
- Provide sidewalks along public streets with connections to the parkway trail system
- Provide well-marked pedestrian crossings at roadway intersections

Parking

- Provide surface parking and loading areas behind the primary buildings
- Incorporate structured parking (parking ramps) and underground parking west of the rail lines if feasible
- Provide on-street/parallel parking along the parkway where space allows

Building Placement and Orientation

- Build street-fronted architecture, particularly along Dowling Avenue N. and the parkway
- Place and orient buildings so that view corridors to the river are preserved and enhanced
- Provide several opportunities for "green fingers" (rain gardens) to penetrate the built development

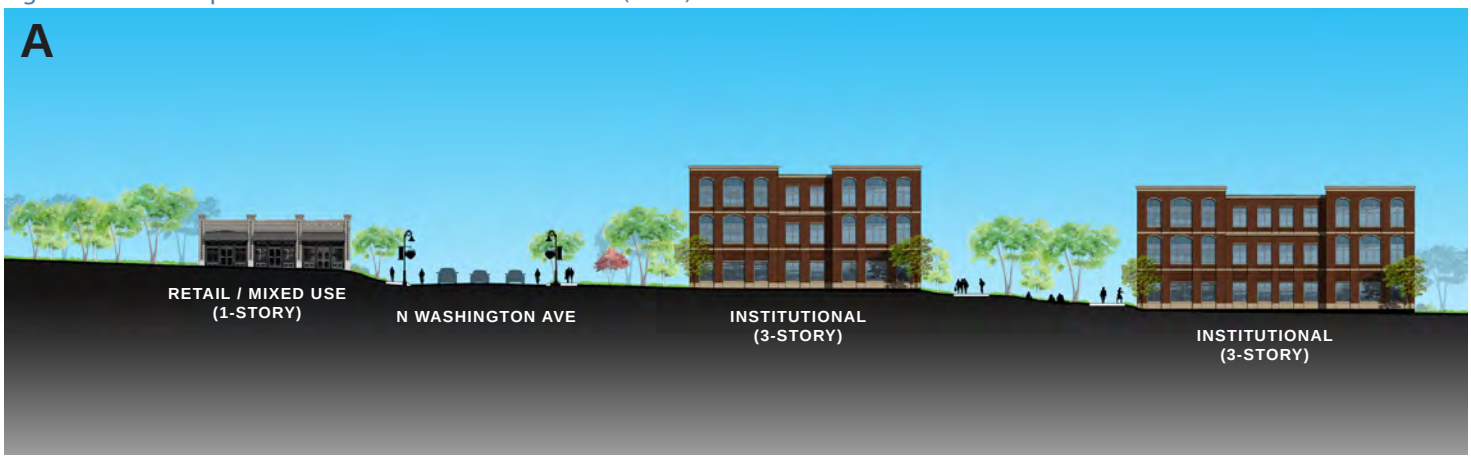
Utilities

- Extend sanitary sewer laterals as appropriate to serve future development. These facilities may run parallel to the large trunk line under the parking lots at the rear of the buildings or they may be able to connect laterally directly into the trunk sewer. Another option would be to locate them under the parkway.
- Extend a water main loop south from 36th Avenue N. to 33rd Avenue N. Locating it in the utility corridor next to the sanitary sewer that falls under the parking lots at the rear of the buildings, or under the parkway.
- Engage private utility companies in extending appropriate facilities as land develops or to correspond with construction of roadway and build out of public right of way corridors.

Stormwater Management

Please see Concept One (pages 42-43) for Stormwater Management approach.

Figure 4-10. Concept Two - North Site Section-Elevation (West)



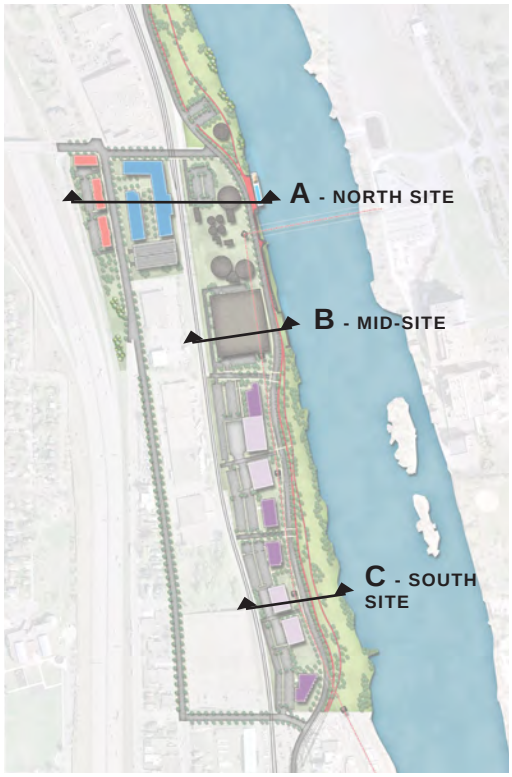


Figure 4-11. Concept Two Section Key Plan

Section-Elevations

The site section-elevations on this and the facing page are meant to be illustrative only and offer a sense of building scale, orientation to the street, and relationship to the river.

Figure 4-10b. Concept Two - North Site Section-Elevation (East)

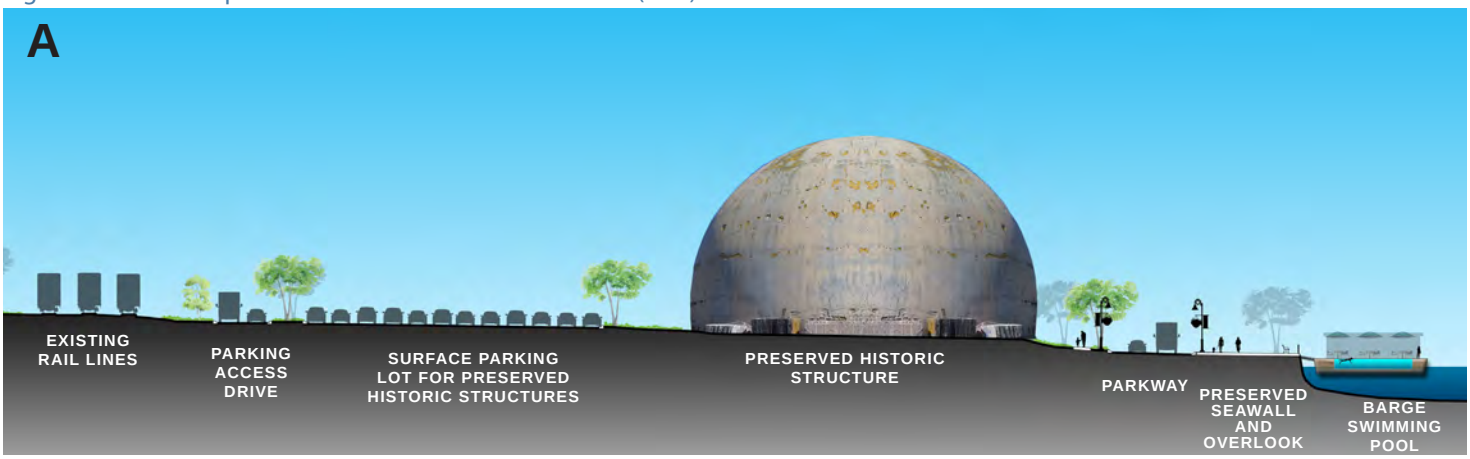


Figure 4-12. Concept Two - Mid-Site Section-Elevation

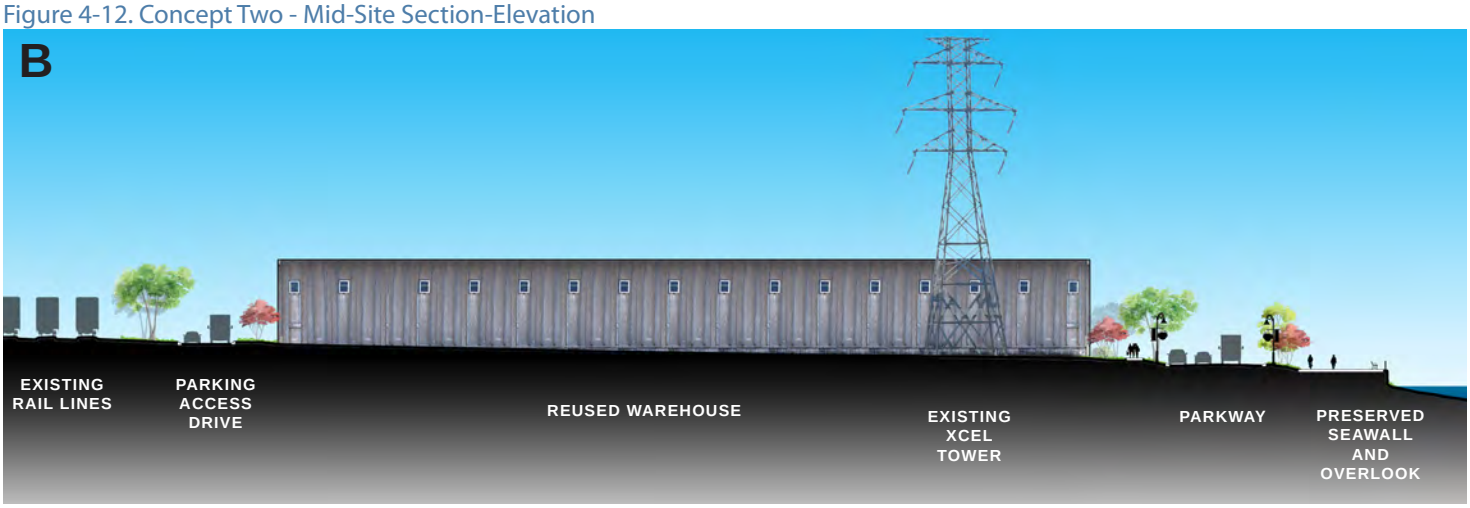
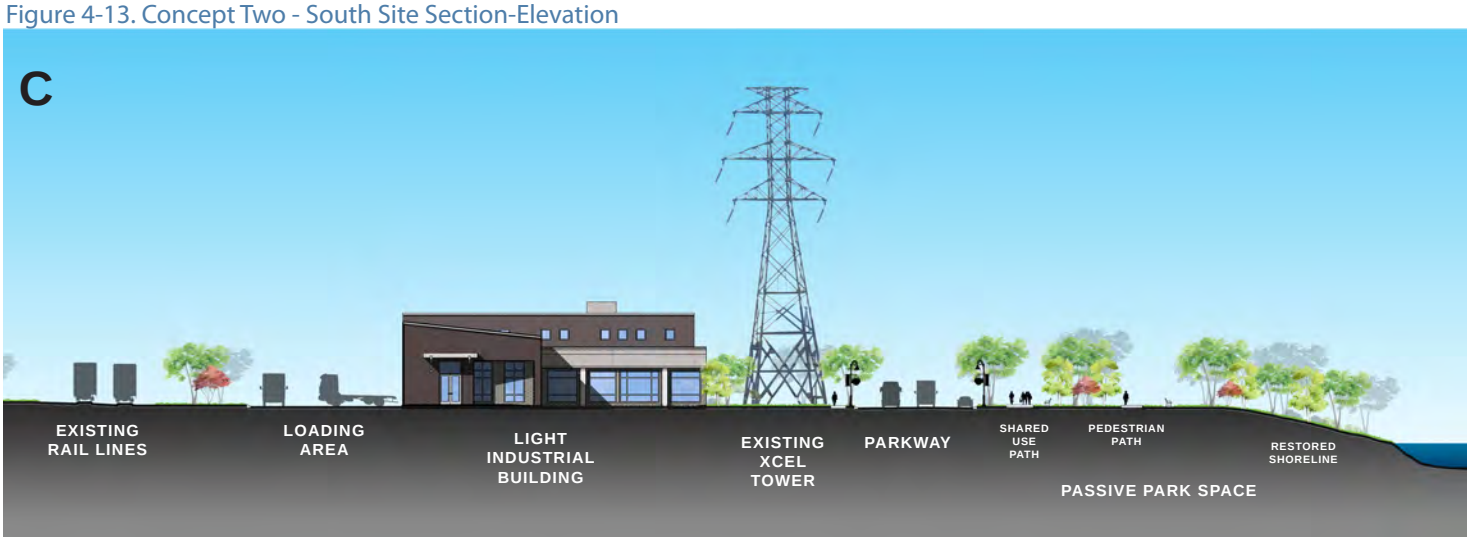


Figure 4-13. Concept Two - South Site Section-Elevation



CONCEPT TWO DEVELOPMENT TABLE AND ACREAGES

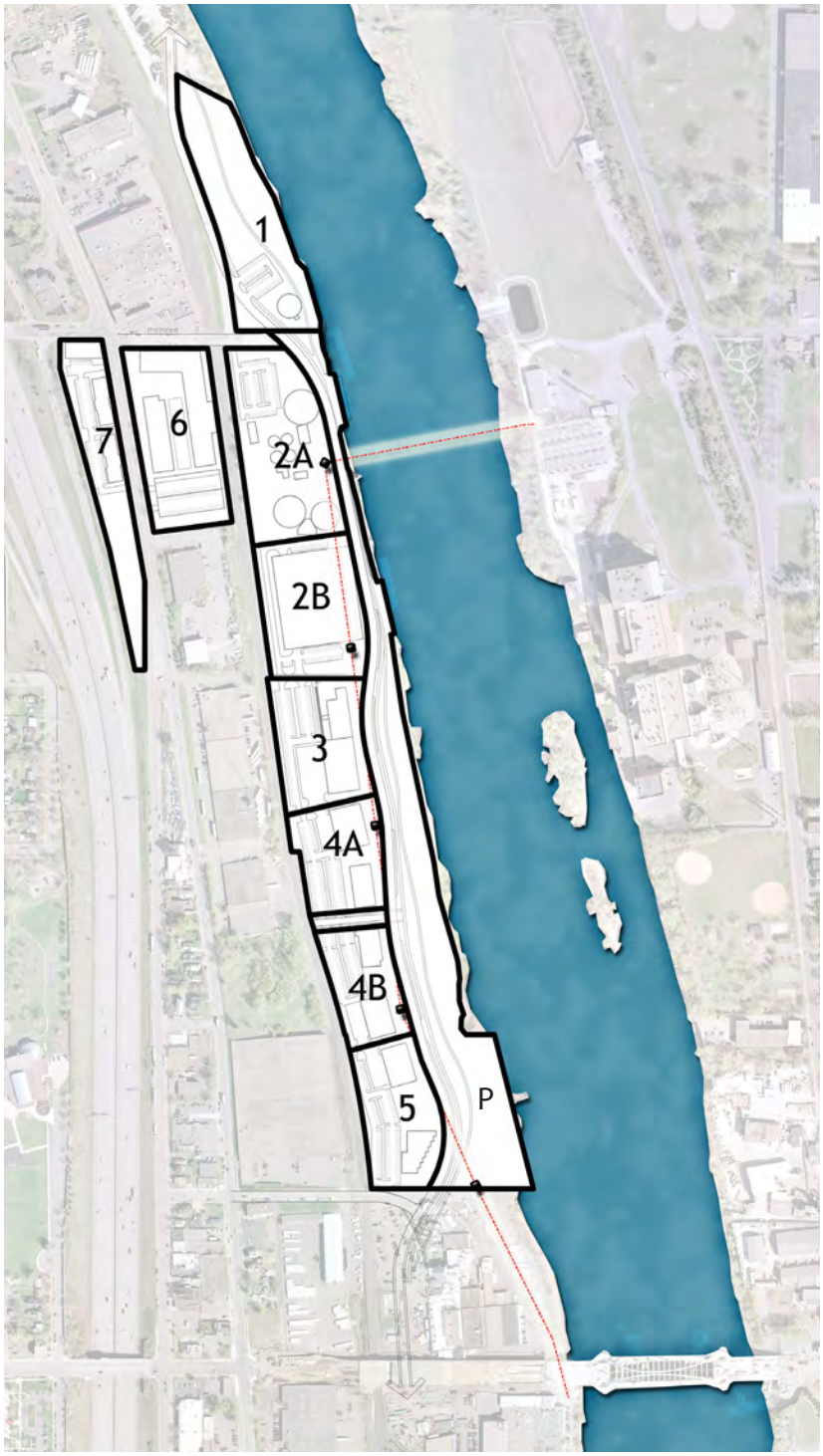


Figure 4-14. Concept Two Parcel Plan

Table 4-2. Concept Two
Preserve and Reuse Potential Historic Structures

						DEVELOPMENT LAND USE							
PARCEL #	DEVELOPMENT ACREAGE	OTHER (PRESERVATION)	PARK (INCL. PARKWAY & TRAILS)	PUBLIC ROW ACREAGE	TOTAL BLDG AREA (SF)	OFFICE (SF)	LIGHT INDUSTRIAL (SF)	RETAIL (SF)	INSTITUTIONAL/ CIVIC (SF)	BLDG HT/ STORIES	PARKING TYPE	PARKING ASSUMED	POTENTIAL JOB CREATION
1			5.6		5,000				5,000	1 STORY	SURFACE	51	10
2A		5.6			N/A						SURFACE	82	
2B		4.6			110,000		110,000			1 STORY	SURFACE	193	110
3	3.8				64,800	40,800	24,000			1 TO 3 STORIES	SURFACE	164	187
4A	3.1				57,600	38,400	19,200			2 TO 3 STORIES	SURFACE	149	173
4B	2.6				48,600	33,600	15,000			3 TO 3 STORIES	SURFACE	127	149
5	3.6				55,800	40,800	15,000			4 TO 3 STORIES	SURFACE	149	178
6	5.0				168,400				168,400	2 TO 3 STORIES	UNDER-GROUND & SURFACE	505	505
7	3.4				28,000			28,000		1 STORY	SURFACE	112	56
P			12.4										
ROW (BACKAGE RD/GRID)				0.4									
TOTAL	**21.4**	**10.2**	**18.0**	**0.4**	**538,200**	**153,600**	**183,200**	**28,000**	**173,400**			**1,532**	**1,369**
TOTAL ACREAGE	**50.0**												

NOTES:

1. THE SURVEYED PARCELS DO NOT FOLLOW THE RIVER SHORELINE. NEW PARCELS WILL BE PLATTED TO DETERMINE LAND VALUES.

2. PARKING ASSUMPTIONS ARE BASED ON CURRENT REAL ESTATE STANDARDS. THESE NUMBERS ARE GREATER THAN CITY ZONING REQUIREMENTS, AND COULD BE REDUCED WITH IMPROVED TRANSIT CONNECTIONS AND OTHER TRAVEL DEMAND MANAGEMENT STRATEGIES.

ASSUMPTIONS

	Job Creation Potential	Parking Assumed
Retail/Restaurant	2 jobs/1,000 sf	4 stalls/1,000 sf
Light Industrial	1 job/1,000 sf	1.75 stalls/1,000 sf
Office	4 jobs/1,000 sf	3 stalls/1,000 sf
Institutional	3 jobs/1,000 sf	3 stalls/1,000 sf
Park	N/A	varies or shared with other uses

Figure 4-15. Concept Three Illustrative Plan

CONCEPT THREE

Balance Development with Park Lands

Concept Three proposes an alternative that balances development sites with park lands. Development parcels are located along the parkway, between Dowling Avenue N. and 34th Avenue N. This concept anticipates primarily office and light industrial development with a small amount of commercial support uses located near I-94. The plan offers a flexible development framework that allows for more density in future phases by developing on surface parking areas that serve early phase development.

Park space is located on the north and south portions of the site, and along the riverfront. The plan identifies a park related building in the North park and a picnic shelter in the South park. Further community engagement is needed to flush out potential park program elements. The plan also calls for removal of the seawall and the creation of a natural edge along the riverfront.

Relocation of the transmission lines along the rail lines is a key infrastructure investment. This is seen as a necessary improvement to attract future office development on the Terminal site. Other big infrastructure recommendations include the closing of the rail crossing at 33rd Avenue N. and shifting that crossing to a new cross street at 34th Avenue N., and a future bridge crossing over I-94 to better connect the riverfront to Northside neighborhoods.

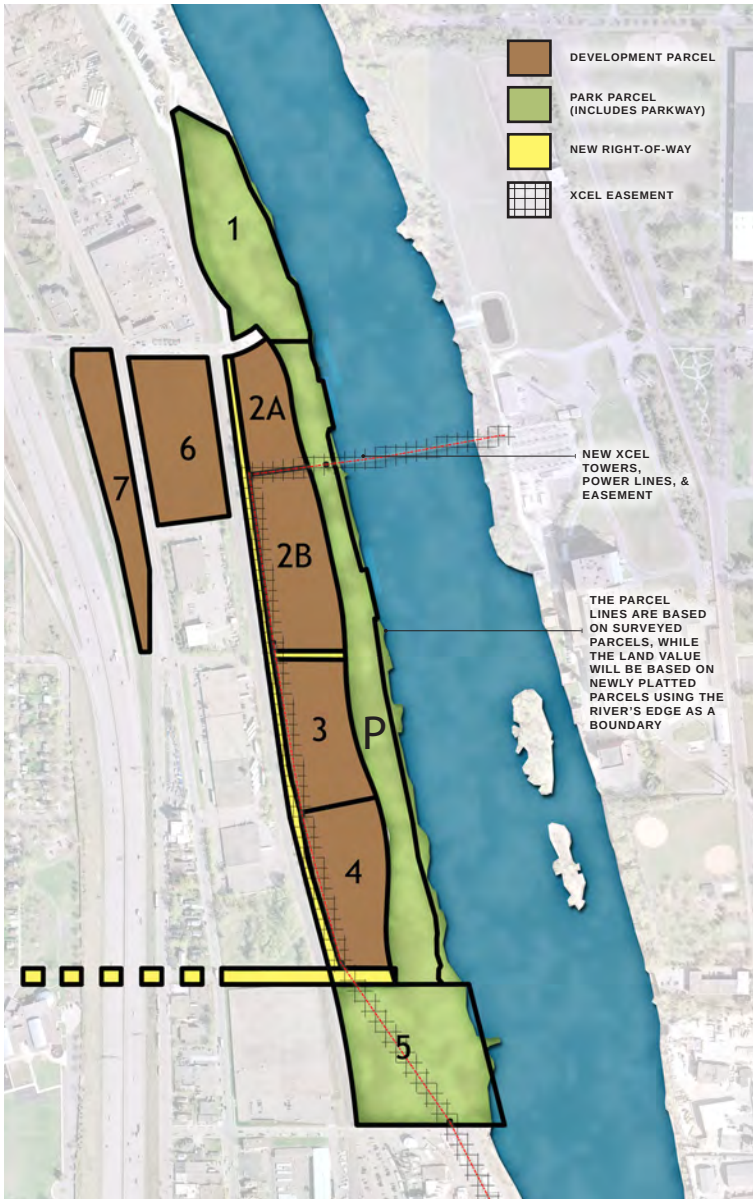


Figure 4-16. Concept Three Parcel and Easement Plan

Specific plan recommendations include the following:

Land Uses

- Focus development between Dowling Avenue N. and 34th Avenue N.
- Promote primarily office and light industrial development
- Plan for commercial and/or mixed use development at I-94
- Plan for future development density on near term surface parking lots
- Create a unique park-related destination at the terminus of Dowling Avenue N. (on the north side) at the Mississippi River edge (i.e. Sea Salt / Tin Fish)

Parks/Parkway

- Maximize park space to the north and south portions of the site and along the riverfront
- North Park area could include a park building/restaurant, picnic area, open play lawn, and stormwater treatment area
- South Park could include a park shelter, playground, small beach, stormwater treatment area
- Provide two distinct trails (bike & pedestrian) along the parkway on the river side

- Provide opportunities for overlooks along the riverfront at key nodes (Dowling Avenue N., Office Development Plaza at 36th Avenue, 34th Avenue N.)
- Create a new natural edge to the riverfront, removing the seawall and expanding the depth of the park land between the river and proposed development parcels
- Design a curvilinear parkway, set back from the river's edge as much as feasible, while retaining minimum development parcel depths
- Enhance the tree canopy to reduce heat island
- Connect the parkway to 2nd Street N. at 34th Avenue N. in interim until parkway can be extended down river.

Access and Circulation

- Create a parkway that provides automobile traffic only – no trucks
- Develop a backage road (minimum 30' width) for truck circulation/loading/delivery and employee access to development parcels
- Move rail crossing from 33rd Avenue N. to 34th Avenue N.
- Provide sidewalks along streets with connections to the parkway trail system
- Provide well-marked pedestrian crossings at roadway intersections
- Consider a future bridge connection over I-94 along 34th Avenue N. – either ped/bike only or full access (auto/ped/bike) bridge

Parking

- Utilize surface parking across majority of site (near term). Long term, these surface parking lots should be planned so they can be developed with structured parking and new office development
- Consider structured parking west of the rail lines to increase building density
- Incorporate free-standing structured parking ramps and under-building / under-plaza parking on the site south of Dowling Avenue N. at Washington Avenue N. – utilize existing grade
- Provide on-street/parallel parking along the parkway near office building entries and park nodes

Building Placement and Orientation

- Build street-fronted architecture, particularly along Dowling Avenue N. and the parkway
- Organize buildings to maximize views of the river and downtown, and minimize views of the Xcel powerpoles/lines (relocated to rail line)
- Provide several opportunities for rain gardens in open space areas of the development parcels, both toward the parkway and the backage road
- Allow for future buildings to be built over near term surface parking lots

Utilities

- Extend sanitary sewer laterals as appropriate to serve future development. These facilities may run parallel to the large trunk line under the backage road or parking lot at the rear of the buildings or they may be able to connect laterally directly into the trunk sewer
- Extend a water main loop south from 36th Avenue N. to 34th Avenue N.

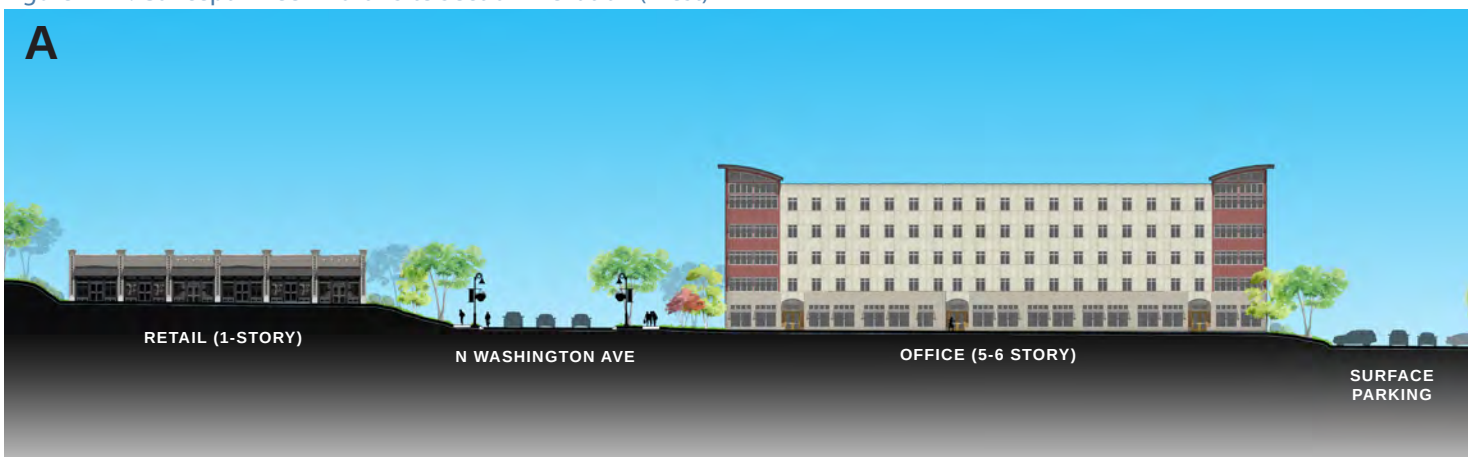
Locating it in the utility corridor next to the sanitary sewer that falls under the backage road or parking lot at the rear of the building.

- Engage private utility companies in extending appropriate facilities as land develops or to correspond with construction of roadway and build out of public right of way corridors.
- Relocate the Xcel Energy power lines and towers along the railroad line to enhance development potential at the Terminal site

Stormwater Management

Please see Concept One (pages 42-43) for Stormwater Management approach.

Figure 4-17. Concept Three - North Site Section-Elevation (West)



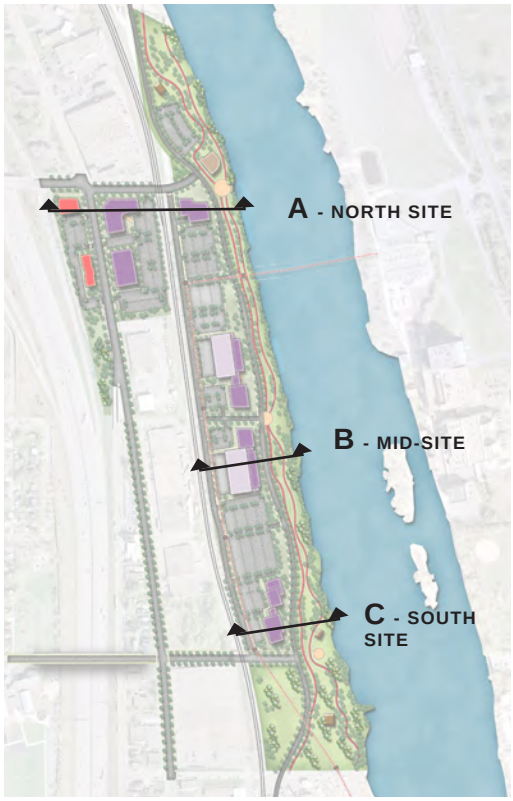


Figure 4-18. Concept Three Section Key Plan

Section-Elevations

The site section-elevations on this and the facing page are meant to be illustrative only and offer a sense of building scale, orientation to the street, and relationship to the river.

Figure 4-17b. Concept Three - North Site Section-Elevation (East)

Figure 4-19. Concept Three - Mid-Site Section-Elevation

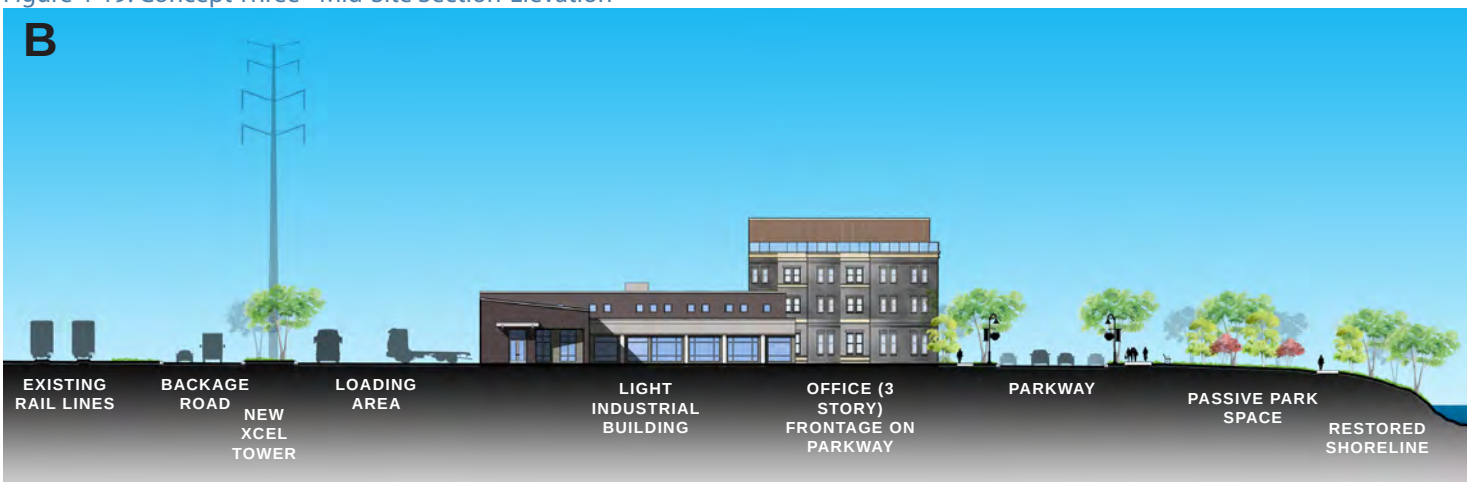
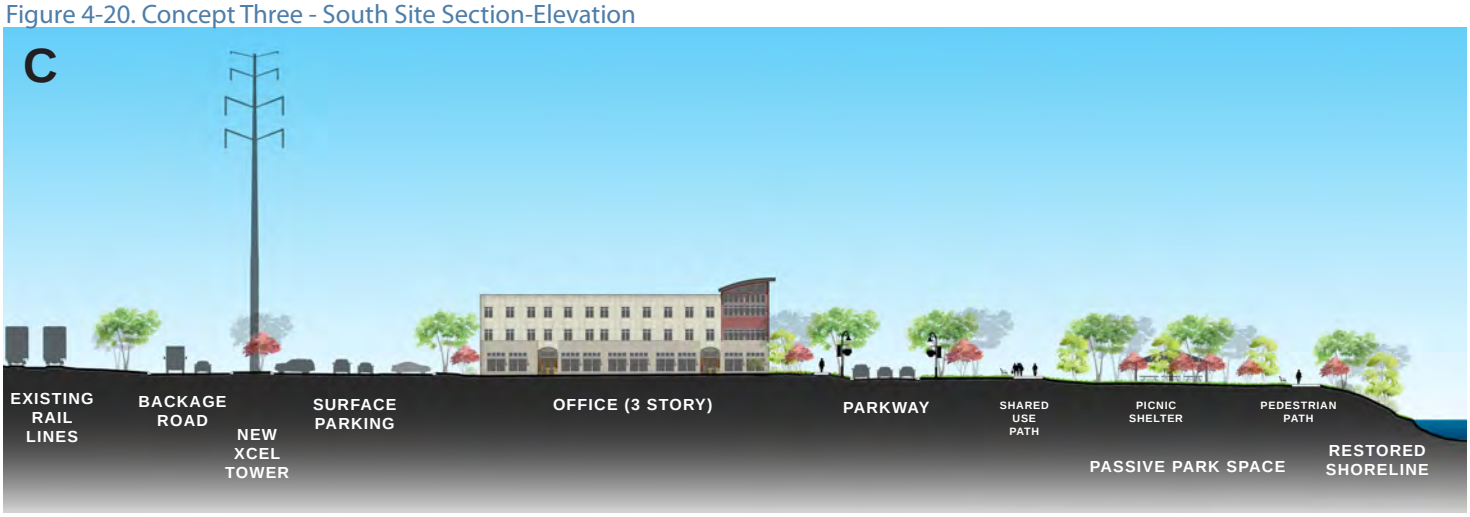


Figure 4-20. Concept Three - South Site Section-Elevation



CONCEPT THREE DEVELOPMENT TABLE AND ACREAGES

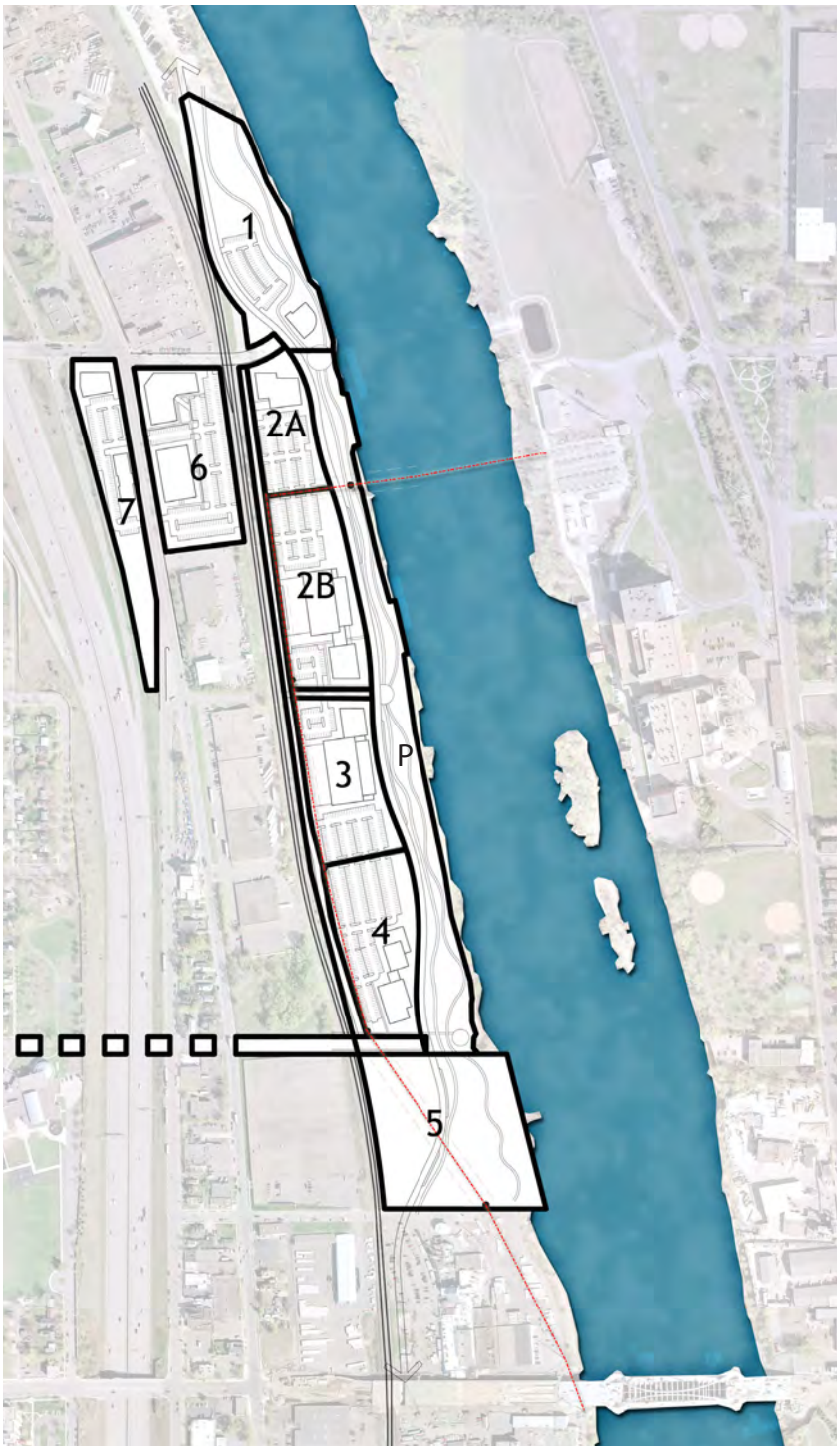


Figure 4-21. Concept Three Parcel Plan

Table 4-3. Concept Three
Balance Development with Park Lands

						DEVELOPMENT LAND USE							
PARCEL #	DEVELOPMENT ACREAGE	OTHER	PARK (INCL. PARKWAY & TRAILS)	PUBLIC ROW ACREAGE	TOTAL BLDG AREA (SF)	OFFICE (SF)	LIGHT INDUSTRIAL (SF)	RETAIL (SF)	INSTITUTIONAL/ CIVIC (SF)	BLDG HT/ STORIES	PARKING TYPE	PARKING ASSUMED	POTENTIAL JOB CREATION
1			6.4						5,060	1 STORY	SURFACE	15 (BLDG) + 85 (PARK & EVENT)	10
2A	2.6				53,100	53,100				3 STORIES	SURFACE	159	212
2B	5.0				102,900	76,500	26,400			1 TO 3 STORIES	SURFACE	276	332
3	4.2				94,900	65,400	29,500			1 TO 3 STORIES	SURFACE	248	291
4	4.5				84,900	84,900				3 STORIES	SURFACE	255	340
5			7.8										
6	5.0				159,200	159,200				3 TO 4 STORIES	UNDER-GROUND & SURFACE	478	637
7	3.6				19,500			19,500		1 STORY	SURFACE	78	39
P			8.4										
ROW (BACKAGE RD/GRID)				2.4									
TOTAL	**25.0**		**22.6**	**2.4**	**514,500**	**439,100**	**55,900**	**19,500**	**5,060**			**1,493**	**1,861**
TOTAL ACREAGE	**50.0**												

NOTES:

1. THE SURVEYED PARCELS DO NOT FOLLOW THE RIVER SHORELINE. NEW PARCELS WILL BE PLATTED TO DETERMINE LAND VALUES.

2. PARKING ASSUMPTIONS ARE BASED ON CURRENT REAL ESTATE STANDARDS. THESE NUMBERS ARE GREATER THAN CITY ZONING REQUIREMENTS, AND COULD BE REDUCED WITH IMPROVED TRANSIT CONNECTIONS AND OTHER TRAVEL DEMAND MANAGEMENT STRATEGIES.

ASSUMPTIONS

	Job Creation Potential	Parking Assumed
Retail/Restaurant	2 jobs/1,000 sf	4 stalls/1,000 sf
Light Industrial	1 job/1,000 sf	1.75 stalls/1,000 sf
Office	4 jobs/1,000 sf	3 stalls/1,000 sf
Institutional	3 jobs/1,000 sf	3 stalls/1,000 sf
Park	N/A	varies or shared with other uses

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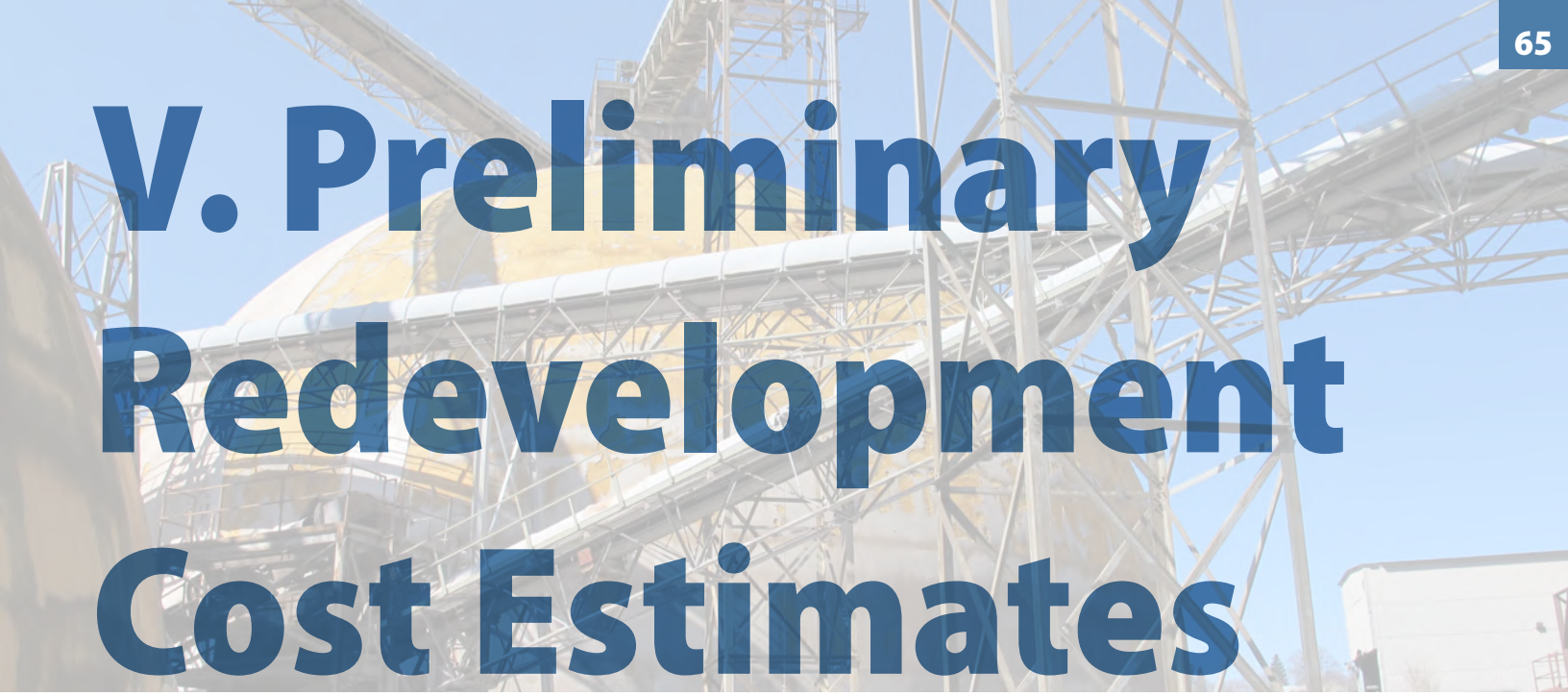


V. Preliminary Redevelopment Cost Estimates

INTRODUCTION

The following spreadsheets represent conceptual cost estimates for the redevelopment concepts. The costs were developed using an approved MnDOT length/width/depth methodology for the roadway construction. This method also incorporates general costs for lengths of utilities, and percentages for streetscape and lighting amenities.

Table 5-1. Concept One Cost Estimate

Item	Quantity	Units	Unit cost	Total Const.	Const. mgmt/mob. (10%)	Infrastructure design & eng. (20%)	Contingency (20%)	Total Est. City PW Costs	Total Est. Park Board Costs
Powerline relocation and design	1	LS	$2,000,000	$2,000,000			$400,000	$1,200,000	$1,200,000
Backage road (33rd to Dowling Ave)	0.663	mile	$3,800,000	$2,519,400	$251,940	$503,880	$655,044	$3,900,000	
Dowling Avenue (I-94 to River Pkwy)	0.195	mile	$7,000,000	$1,365,000	$136,500	$273,000	$354,900	$2,100,000	
33rd Avenue (2nd St to River Pkwy)	0.152	mile	$5,700,000	$866,400	$86,640	$173,280	$225,264	$1,400,000	
34th Avenue (2nd St to River Pkwy)	0.000	mile	$8,300,000	$-	$-	$-	$-	$-	
34th Avenue (Backage Rd to Pkwy)	0.058	mile	$3,600,000	$208,800	$20,880	$41,760	$54,288	$300,000	
35th Avenue (Backage Rd. to Pkwy	0.070	mile	$3,800,000	$266,000	$26,600	$53,200	$69,160	$400,000	
36th Avenue (Backage Rd to Pkwy)	0.069	mile	$4,200,000	$289,800	$28,980	$57,960	$75,348	$500,000	
Parkway (North of Dowling to 33rd)	0.867	mile	$3,500,000	$3,034,500	$303,450	$606,900	$788,970		$4,700,000
Park Land Improvements *	13.47	Acre	$75,000	$1,010,358	$101,036	$202,072	$262,693		$1,600,000
Park Land Acquisition				unknown					
Park Trails	8,954	LF	$85	$761,090	$76,109	$152,218	$197,883		$1,200,000
Site demolition/ clearance **	1	LS	$3,000,000	$3,000,000			$600,000	$1,800,000	$1,800,000
Spur Track Removals	15,000	LF	$10	$150,000			$30,000	$100,000	$100,000
Parking Lots (Paved Surface Lots)		stalls		developer costs					
Stormwater management				(in above costs)					
R-O-W acquisition				(in above costs)					
Structure Preservation				unknown					
Soil remediation				unknown					
TOTAL				**15,500,000**	**$1,100,000**	**$2,100,000**	**$3,800,000**	**$11,700,000**	**$10,600,000**

Supporting Improvements

Wash/2nd Street (Lowry Ave to Dowling)	0.767	mile	$5,600,000	$4,295,200	$429,520	$859,040	$1,116,752	$6,700,000	

Notes & Assumptions:

1) Costs are in 2014 dollars

2) All new utilities - No capacity or condition analysis performed

3) All new street reconstructions

4) Prepared using MnDOT LxWxD cost estimating methodology

5) Based upon 2013 appraisal of UHT site and 2014 Assessor's Estimated Market Value, park land value might be $3.8M -- $8.2M.

*Note: Includes basic park "greening" and no special features. Does not include land acquisition.

**Note: Includes costs for addressing or modifying seawall (est. provided by City)

Table 5-2. Concept Two Cost Estimate

Item	Quantity	Units	Unit cost	Total Const.	Const. mgmt/mob. (10%)	Infrastructure design & eng. (20%)	Contingency (20%)	Total Est. City PW Costs	Total Est. Park Board Costs
Powerline relocation and design	0	LS	$2,000,000	$-			$-	$-	$-
Backage road (33rd to Dowling Ave)	0.000	mile	$3,800,000	$-	$-	$-	$-	$-	
Backage road (Alleys) *	0.121	mile	$3,800,000	$459,800	$45,980	$91,960	$119,548	$700,000	
Dowling Avenue (I-94 to River Pkwy)	0.170	mile	$7,000,000	$1,190,000	$119,000	$238,000	$309,400	$1,900,000	
33rd Avenue (2nd St to River Pkwy)	0.119	mile	$5,700,000	$678,300	$67,830	$135,660	$176,358	$1,100,000	
34th Avenue (2nd St to River Pkwy)	0.000	mile	$8,300,000	$-	$-	$-	$-	$-	
34th Avenue (Backage Rd to Pkwy)	0.000	mile	$3,600,000	$-	$-	$-	$-	$-	
35th Avenue (Backage Rd. to Pkwy	0.058	mile	$3,800,000	$220,400	$22,040	$44,080	$57,304	$300,000	
36th Avenue (Backage Rd to Pkwy)	0.072	mile	$4,200,000	$302,400	$30,240	$60,480	$78,624	$500,000	
Parkway (North of Dowling to 33rd)	0.900	mile	$3,900,000	$3,510,000	$351,000	$702,000	$912,600		$5,500,000
Park Land Improvements **	18.07	Acre	$75,000	$1,355,108	$135,511	$271,022	$352,328		$2,100,000
Park Land Acquisition				unknown					
Park Trails	8,939	LF	$85	$759,815	$75,982	$151,963	$197,552		$1,200,000
Site demolition/ clearance ***	1	LS	$500,000	$500,000			$100,000	$300,000	$300,000
Spur Track Removals	15,000	LF	$10	$150,000			$30,000	$100,000	$100,000
Parking Lots (Paved Surface Lots)		stalls		developer costs					
Stormwater management				(in above costs)					
R-O-W acquisition				(in above costs)					
Structure Preservation				unknown					
Soil remediation				unknown					
TOTAL				**$9,100,000**	**$800,000**	**1,700,000**	**$2,300,000**	**$4,900,000**	**$9,200,000**

Supporting Improvements

Wash/2nd Street (Lowry Ave to Dowling)	0.767	mile	$5,600,000	$4,295,200	$429,520	$859,040	$1,116,752	$6,700,000	

Note: This Concept contains no backage road or very little. Series of parking lots serve as backage

Notes & Assumptions:

1) Costs are in 2014 dollars

2) All new utilities - No capacity or condition analysis performed

3) All new street reconstructions

4) Prepared using MnDOT LxWxD cost estimating methodology

5) Based upon 2013 appraisal of UHT site and 2014 Assessor's Estimated Market Value, park land value might be $5.1M -- $11M.

*Includes short alleys/utility corridors from Parkway to back of parcels/parking lots.

**Note: this does not include the land with the warehouse and most of the domes. Does not include land acquisition.
Note: Includes basic park ""greening"" and no special features"

***Note: this concept preserves the warehouse, domes, and conveyor system; some smaller buildings on the site may be removed

Table 5-3. Concept Three Cost Estimate

Item	Quantity	Units	Unit cost	Total Const.	Const. mgmt/mob. (10%)	Infrastructure design & eng. (20%)	Contingency (20%)	Total Est. City PW Costs	Total Est. Park Board Costs
Powerline relocation and design	1	LS	$2,000,000	$2,000,000			$400,000	$1,200,000	$1,200,000
Backage road (34rd to Dowling Ave) *	0.500	mile	$3,900,000	$1,950,000	$195,000	$390,000	$507,000	$3,000,000	
Dowling Avenue (I-94 to River Pkwy)	0.165	mile	$7,000,000	$1,155,000	$115,500	$231,000	$300,300	$1,800,000	
33rd Avenue (2nd St to River Pkwy)	0.090	mile	$5,700,000	$513,000	$51,300	$102,600	$133,380	$800,000	
34th Avenue (2nd St to River Pkwy)**	0.120	mile	$8,300,000	$996,000	$99,600	$199,200	$258,960	$1,600,000	
34th Avenue (Backage Rd to Pkwy)	0.000	mile	$3,600,000	$-	$-	$-	$-	$-	
35th Avenue (Backage Rd. to Pkwy	0.000	mile	$3,800,000	$-	$-	$-	$-	$-	
36th Avenue (Backage Rd to Pkwy)	0.064	mile	$4,200,000	$268,800	$26,880	$53,760	$69,888	$400,000	
Parkway (North of Dowling to 33rd)	0.877	mile	$3,900,000	$3,420,300	$342,030	$684,060	$889,278		$5,300,000
Park Land Improvements***	22.29	Acre	$75,000	$1,671,946	$167,195	$334,389	$434,706		$2,600,000
Park Land Acquisition				unknown					
Park Trails	8,736	LF	$85	$742,560	$74,256	$148,512	$193,066		$1,200,000
Site demolition/ clearance****	1	LS	$3,000,000	$3,000,000			$600,000	$1,800,000	$1,800,000
Spur Track Removals	15,000	LF	$10	$150,000			$30,000	$100,000	$100,000
Parking Lots (Paved Surface Lots)		stalls		developer costs					
Stormwater management				(in above costs)					
R-O-W acquisition				(in above costs)					
Structure Preservation				unknown					
Soil remediation				unknown					
TOTAL				**$15,900,000**	**$1,100,000**	**$2,100,000**	**$3,800,000**	**$10,700,000**	**$12,200,000**

Supporting Improvements

Wash/2nd Street (Lowry Ave to Dowling)	0.767	mile	$5,600,000	$4,295,200	$429,520	$859,040	$1,116,752	$6,700,000	
34th Ave Bridge Connection Across I-94*****	1.000	LS	$10,000,000	$10,000,000	$1,000,000	$2,000,000	$2,600,000	$15,600,000	

Notes & Assumptions:

1) Costs are in 2014 dollars

2) All new utilities - No capacity or condition analysis performed

3) All new street reconstructions

4) Prepared using MnDOT LxWxD cost estimating methodology

5) Based upon 2013 appraisal of UHT site and 2014 Assessor's Estimated Market Value, park land value might be $6.4M -- $13.8M.

*Note: assumes only from 34th to Dowling

**Note: includes 66' ROW from 2nd Street to parkway

***Note: includes parkway corridor land
Note: Includes basic park ""greening"" and no special features. Does not include land acquisition.

****Note: Includes costs for addressing or modifying seawall (est. provided by City)

*****Note: includes costs for basic auto/ped bridge, no bike path.

VI. Redevelopment Framework Plan

INTRODUCTION

As a result of the planning process, the planning team determined it would be useful to prepare a framework plan to help guide redevelopment considerations of the Upper Harbor Terminal site. The Redevelopment Framework Plan provides the City with guidance for redevelopment and infrastructure projects, both public and private. Actual redevelopment and timing of the Terminal site may depend on several factors, such as market conditions, historic preservation and soil remediation issues, infrastructure needs, competing sites for redevelopment, redevelopment trends, and other factors too unknown to predict at this time. The City can play an active role in guiding redevelopment by establishing form-based principles to guide future development and potential phasing strategies.

GUIDING PRINCIPLES

The following principles are intended to guide future redevelopment on the Upper Harbor Terminal site:

- Provide redevelopment sites that can accommodate a wide range of high quality private (or possibly institutional) development that will accommodate good, stable jobs to help address the employment needs of the North Side and contribute to the City's tax base.
- Create a first class regional park destination to serve North Minneapolis residents and visitors from a wider area. Extend the Grand Rounds parkway and trail system along the riverfront and provide high quality park amenities to support recreation, public health and social interaction.
- Respect the history of the site through preservation of its unique heritage and character, and evaluate whether adaptive reuse of some or all of the structures is feasible (with documentation and interpretation as complements).
- Meet basic community needs through an optimal mix of private development balanced with parks, institutional development and other public areas
- Create a mutually supportive, river-oriented development. Capitalize on the river experience, and invite people to connect with and value an enhanced environmental corridor.
- Create strong and welcoming cultural, visible and physical connections to the surrounding city, particularly nearby neighborhoods, North Mississippi Regional Park and key transportation routes.
- Promote sustainability through redevelopment of the site, including low impact design (LID), water and energy conservation strategies.

INITIAL CONCLUSIONS

While the study was not intended to arrive at one preferred development plan, the staff advisory and consultant team did reach general consensus on the following initial conclusions:

- Dowling Avenue is the primary existing access point to the site and should be improved in the near-term from I-94 to the river to serve as the primary entry to the site. Consideration also should be given to what improvements eventually should be made to Dowling west of I-94 to enhance the connection from the community to the site.
- Create a unique destination at Dowling Avenue and the Mississippi River that capitalizes on the convergence of the park, the development and the river, and attracts both residents and the employees of adjacent existing and future businesses. This destination might be publicly owned or a private "third place" attraction (possibly a concession on Park Board land), with a possible partnership between agencies, organizations and businesses, but it should be something that will be valued by the community, but also attractive to employees in the business park.
- Optimize the value of land reserved for both park and development by examining flexible arrangements that achieve an overall balance. Consider concentrations of larger areas for each land use that maximize options and usable space, along with smaller areas that may provide connectivity or other limited functions. This would include concentrating the park areas at the northern and/or southern ends of the site so that there will be more options

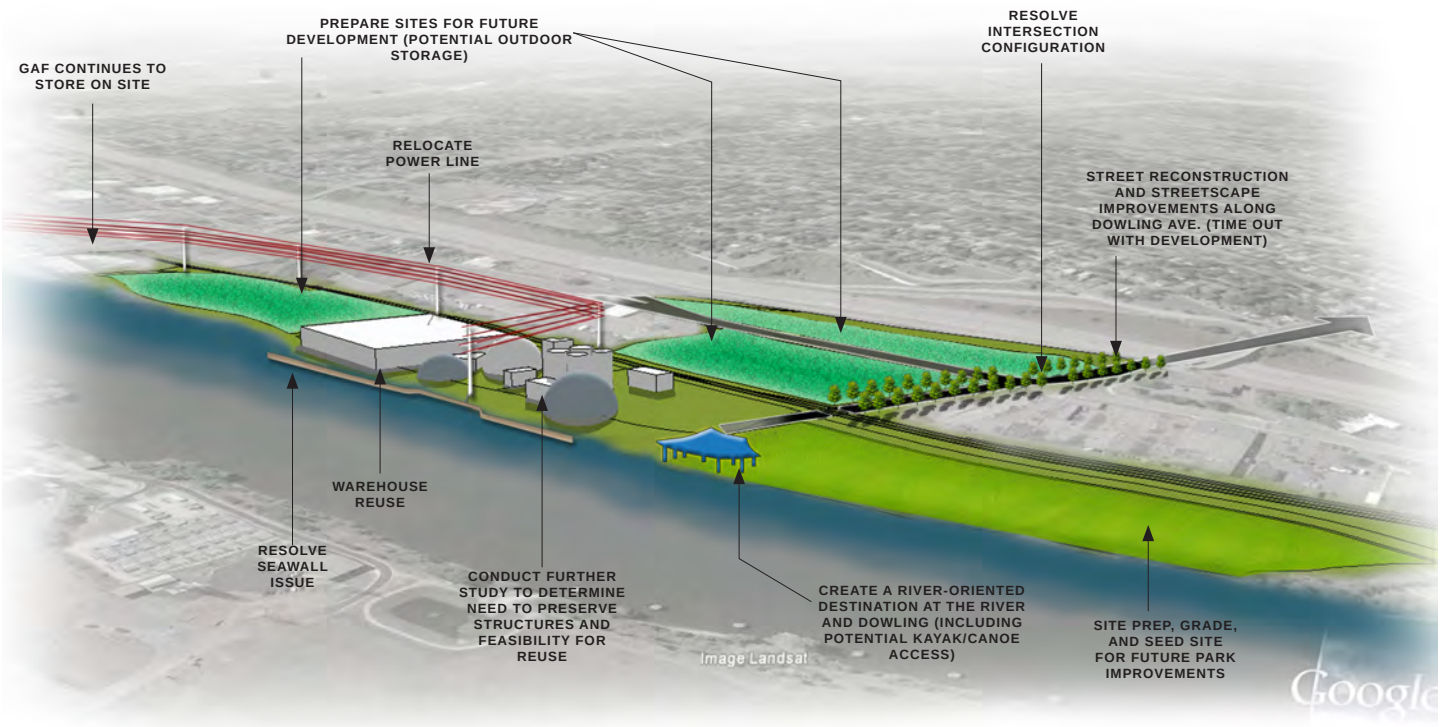
there for significant park amenities. The linear park corridor between those two larger park areas should be designed primarily to provide a connection, with enough space for a pleasant parkway and trail experience and shoreline restoration (with the possible exception of the seawall segment if it will be preserved), but as compactly as reasonable to preserve adjacent parcel sizes suitable for development.

- Respect the unique history of the site and fully explore whether any of the existing structures can find feasible new uses that could help provide the desired destination and create an identity/brand. These might be as publicly-owned park features, privately operated concessions on park land and/or privately owned developments. This would include exploring the feasibility of retaining the seawall as a historically significant site feature that would offer a different park experience and relationship to the river for that relatively short segment.
- Relocate the existing transmission power line back to the rail corridor so that it has a reduced impact on the development and park parcels.
- Pending more extensive review of the cost-benefit and funding availability, provide a "backage" service road running next to the rail corridor from Dowling to either 34th or 33rd to provide vehicular/truck access and a utility corridor to serve the riverfront development parcels to minimize truck traffic impacts to the overall river and parkway experience.
- Extend 34th Ave at the southern end of the site to 2nd Street N., if feasible, to provide another access point to the site, especially for the interim until the parkway can be extended to the south. Explore a possible vehicular or pedestrian/bike bridge across I-94 at 34th Ave to provide a second strong connection from the community and Perkins Hill Park to the site and riverfront.
- Build on the existing vision and design guidelines established in the Above the Falls Master Plan Update and the Above the Falls Regional Park Master Plan.
- Aim for efficient, intensive use of the site's development potential to maximize jobs, taxes and activity. If the market and/or available funding will not initially support structured parking to achieve greater development intensity, design the initial phases of development to allow for later intensification by replacing surface parking with structured parking (and possibly enhanced transit connections) to support more development.
- Start the phasing of both private and park redevelopment at the northern/Dowling end of the site and then work south.

PHASING STRATEGY

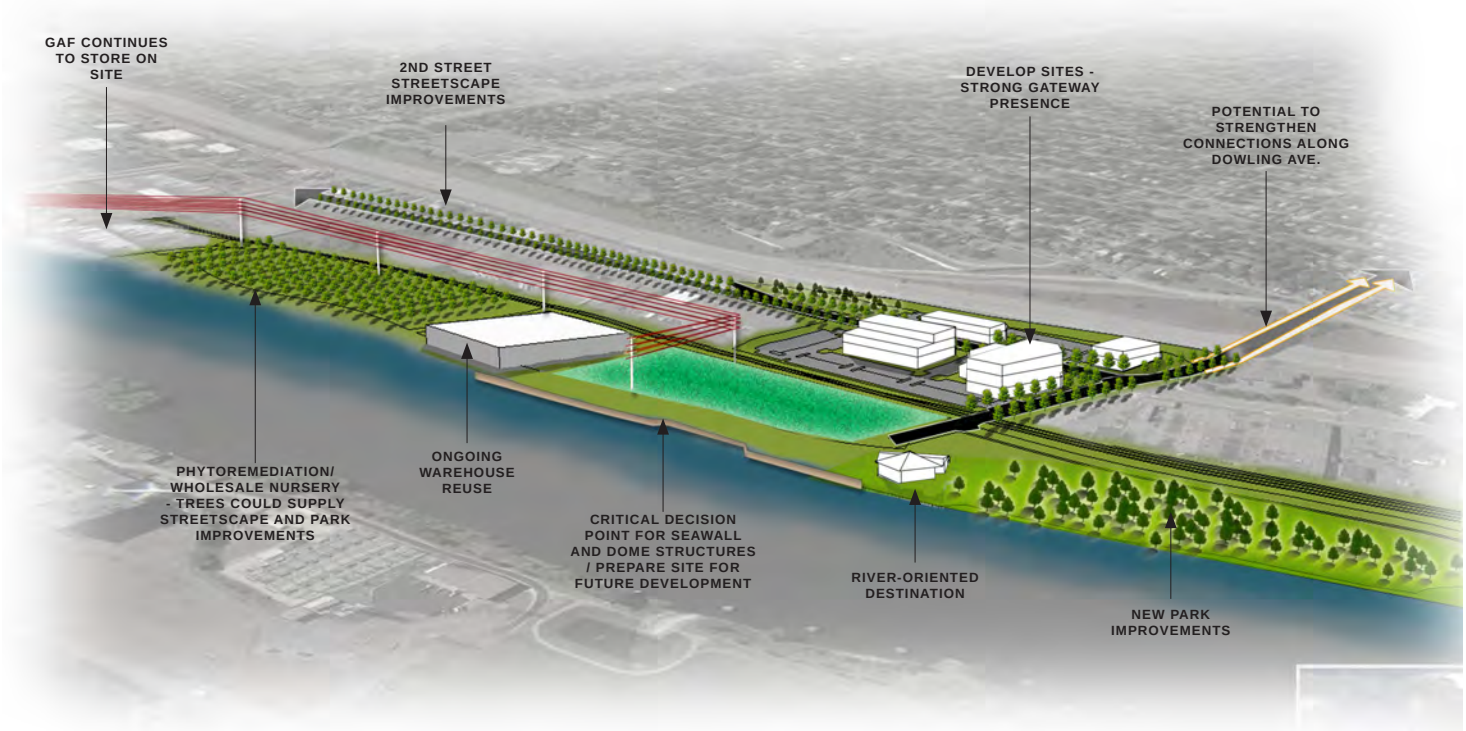
The following phasing strategy offers the City guidance for phasing redevelopment and infrastructure improvements at the Upper Harbor Terminal site that achieves full build out over a 30-year period. While actual redevelopment may occur differently, depending on market conditions, development interest, and/or City priorities, the phasing strategy outlined below offers a glimpse at how redevelopment could unfold and maybe more importantly, reveals several key considerations for the City to discuss further as it plans for future improvements at the Upper Harbor Terminal.

PHASE ONE (0-5 YEARS)

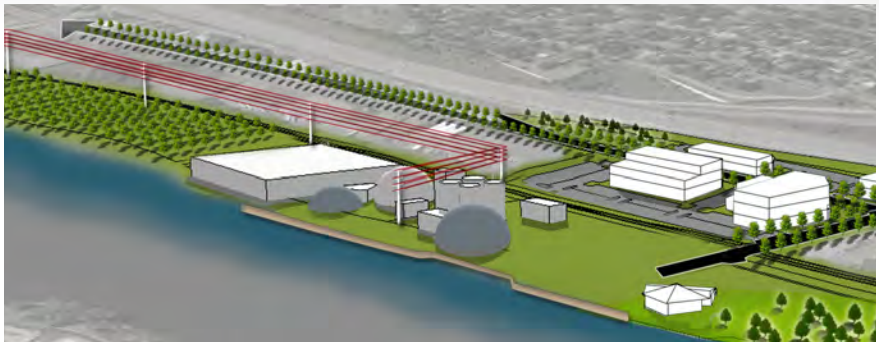


- Create a destination at the riverfront and the terminus of Dowling Avenue N. This should be a river oriented, unique amenity that draws people to the river and creates a new vibe for the Upper River at the Terminal site. This could be an interim use such as an art park, or other park-related feature that can be replaced with a permanent feature.
- Relocate the Xcel Energy transmission lines adjacent to the rail lines to enhance future development potential.
- Resolve and remove the unused rail spur lines that exist on the Terminal site.
- Reconstruct Dowling Avenue N. from Interstate 94 to the east terminus of Dowling Avenue N. Include streetscape enhancements such as sidewalks, tree plantings, lighting, bike lanes, green infrastructure, etc.
- With reconstruction of Dowling Avenue N., resolve the intersection at Dowling Avenue N. and Washington Avenue N. to eliminate the existing offset configuration.
- Conduct further studies to determine need to preserve potential historic structures and feasibility for reuse.
- Conduct further geotechnical studies/soil studies to determine constructability and remediation needs
- Prepare portions of site not being used for interim storage sites for future redevelopment and/or future park development (cleanup, demolition, grade and seed).
- Continue interim use of warehouse and site areas as storage facilities to generate income.
- Continue to allow GAF to store materials on site.
- Mill and overlay improvements of 2nd Street N. are planned in 2015.

PHASE TWO (5-10 YEARS)

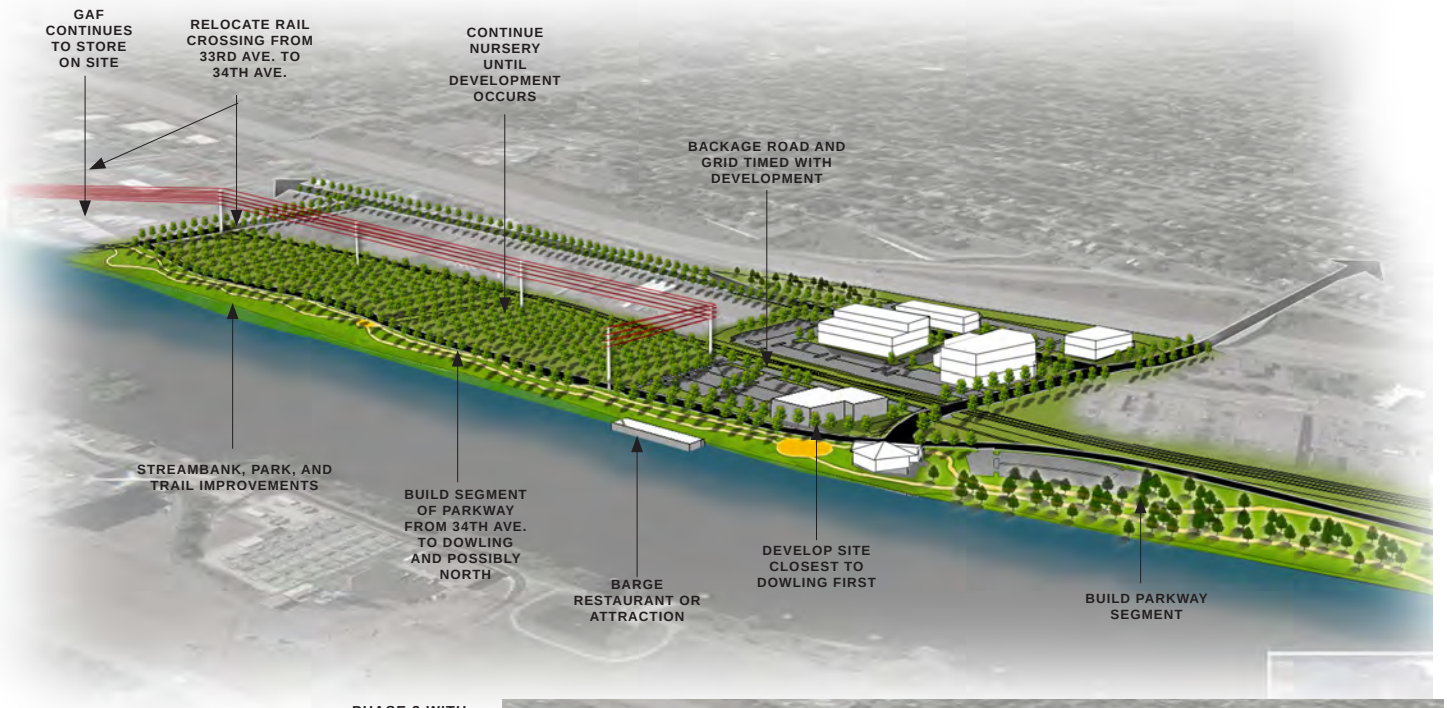


PHASE 2 WITH OPTION TO KEEP EXISTING STRUCTURES AND SEAWALL



- Begin to develop sites. Focus on areas that provide an immediate impact, such as at Interstate 94, along Dowling Avenue N. and riverfront.
- Reconstruct or improve 2nd Street N./ Washington Avenue N. from Lowry Avenue N. to Dowling Avenue N. Include streetscape enhancements such as sidewalks, tree plantings, lighting, green infrastructure, etc.
- Design/construct new park improvements north of Dowling Avenue N.
- Restore river bank north of Dowling Avenue N.
- Pursue a permanent riverfront related destination at the terminus of Dowling Avenue N. and the river. This could be a restaurant (i.e. Sea Salt) or other destination.
- Continue to use warehouse for cold storage or other income generating use.
- Consider development of a wholesale tree nursery south of the warehouse building. This could be an interim income generator that could eventually supply trees for other site improvements and establish a "green" brand for the Terminal site.
- Continue to allow GAF to store materials on site.
- Critical decision point for seawall and other potential historic structures. Either initiate preservation strategies or demolish and prepare sites for redevelopment.
- Strengthen pedestrian and bike connections and wayfinding along Dowling Avenue N. to better connect Northside neighborhoods to the riverfront (costs to be determined).
- Begin discussions with CP Rail regarding the relocation of the 33rd Avenue N. rail crossing to 34th Avenue N.

PHASE THREE (10-15 YEARS)



PHASE 3 WITH OPTION TO KEEP EXISTING STRUCTURES AND SEAWALL

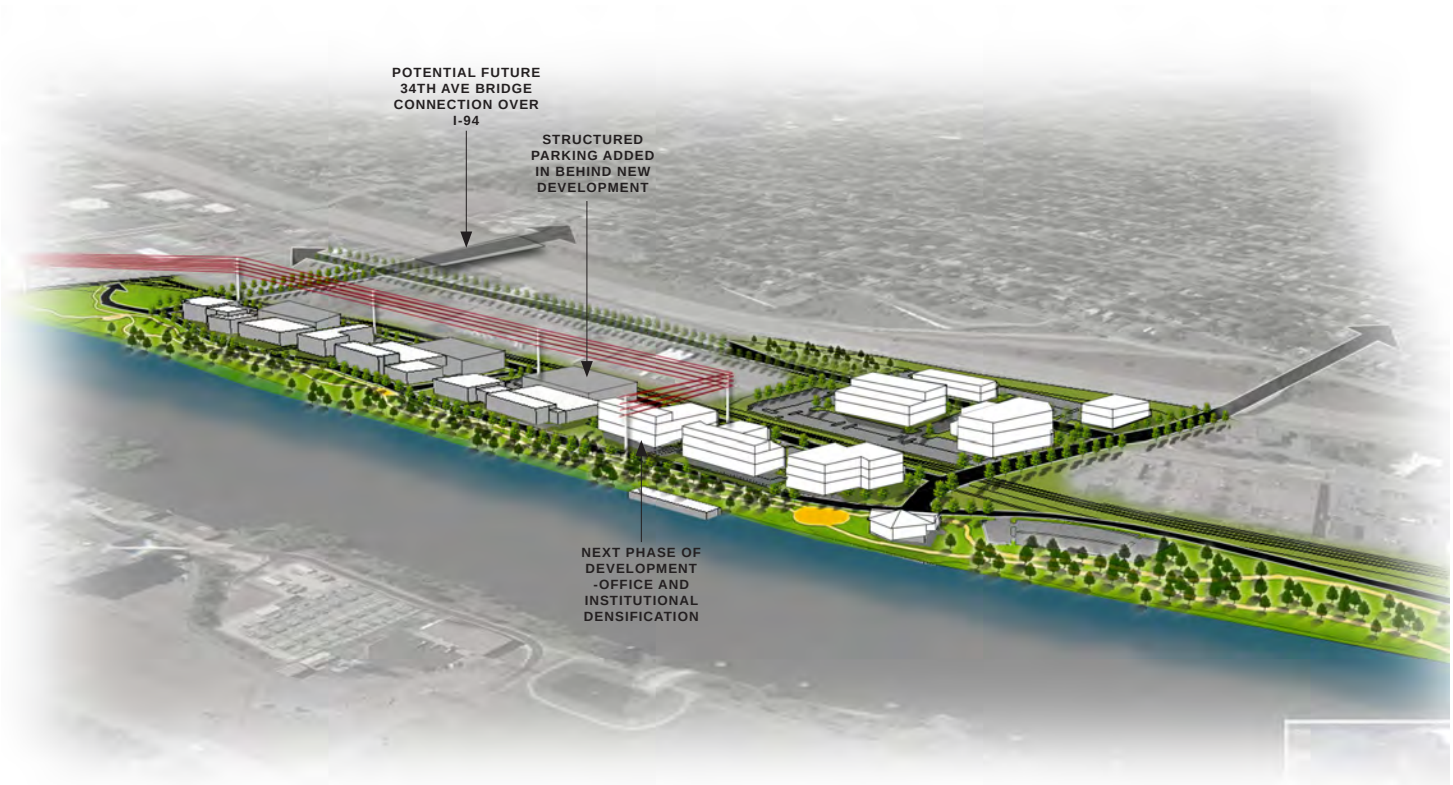
- Relocate rail crossing from 33rd Avenue N. to 34th Avenue N. May need to build a cul-de-sac at end of 33rd Avenue N. (west of rail line).
- Build West River Parkway segment from 34th Avenue N. to Dowling Avenue N. and maybe north to a parking lot that would serve the park north of Dowling Avenue N.
- Extend 34th Avenue N. to West River Parkway.
- Provide site access for GAF from 34th Avenue N. (east of rail line).
- Further development of site, focused on Dowling Avenue N. and 2nd Street N. /Washington Avenue N.
- Continue nursery operation until it is slowly replaced with development.
- Improve river bank south of Dowling Avenue N. and construct trails and overlooks along the riverfront.
- Promote the development of a river-oriented restaurant/bar located on a barge, docked to the seawall (if the seawall is determined to be preserved) or overlooking the river.
- Develop the service road (backage road) along the rail line to serve development sites (as development occurs)
- Continue to allow GAF to store materials on site.

PHASE FOUR (15-20 YEARS)

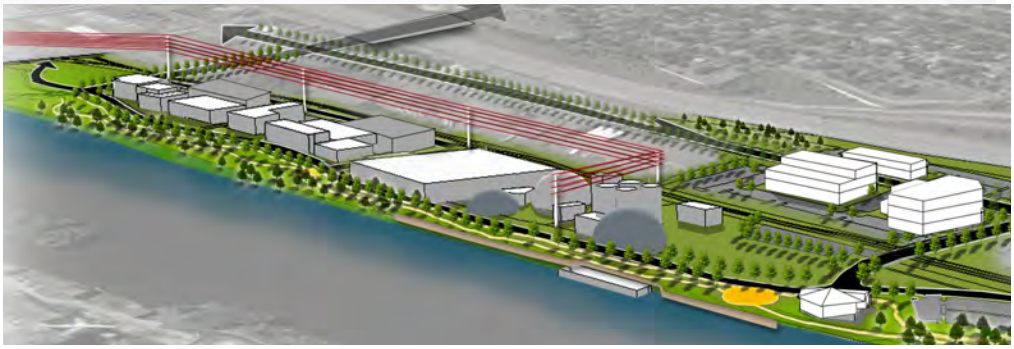
PHASE 4 WITH OPTION TO KEEP EXISTING STRUCTURES AND SEAWALL

- Construct service road and restore street grid (35th Avenue N., 36th Avenue N. and possibly 37th Avenue N.).
- Continue to develop vacant sites. Promote density on the site while planning for future densification if near term development densities don't achieve the intensity of development and job creation the City desires.
- Build park program elements and stormwater features on development sites and in park areas.
- Study the feasibility of extending 34th Avenue N. west over Interstate 94 to better connect the Northside neighborhoods to the riverfront.

PHASE FIVE (20-30 YEARS)



PHASE 5 WITH OPTION TO KEEP EXISTING STRUCTURES AND SEAWALL



- Build the 34th Avenue N. bridge connection over Interstate 94 (either ped/bike or complete auto/ped/bike bridge).
- Encourage further development on underutilized sites to provide more density and job creation on the Terminal site. This may require structured parking to densify.

PHASING COST ESTIMATES

Below is an example cost phasing breakdown for Concept 3 represented in the Framework Diagram. These costs are based on the redevelopment cost estimates in section V. of this report.

Concept 3 Cost Phasing Example

Phase 1

Power Line Relocation & Design	$2.4M
Dowling Ave (I-94 to River Pkwy)	$1.8M
Parkland Improvements	$2.6M
Spur Tracks Removal	$200k
Total	$7.0M

Phase 2

Site demolition/clearance	$3.6M
Wash/2nd St. (Lowry to Dowling)	$6.7M
Total	$10.3M

Phase 3

33rd Ave (2nd St. to River Pkwy)	$800k
36th Ave (Backage Rd. to Pkwy)	$400k
Parkway (North of Dowling to 33rd)	$5.3M
Park Trails	$1.2M
Total	$7.7M

Phase 4

Backage Rd (33rd to Dowling)	$3.0M
34th Ave (2nd St. to River Pkwy)	$1.6M
Total	$4.6M

Phase 5

34th Ave Bridge Conn. across I-94	$6-10M

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VII. Recommended Next Steps

NEAR TERM (1-2 YEARS)

Existing Structures and Utilities

- Complete an engineering and historical assessment of the existing structures to evaluate their feasibility for preservation and adaptive reuse, followed by a development request for proposals if appropriate.
- If there are existing improvements that are not needed for interim use and that don't have adaptive reuse potential, explore the availability of demolition permits and proceed accordingly (completing documentation if required by the HPC); make any urgent repairs to structures that will remain.
- Follow up as appropriate with additional evaluation, design and engineering for the retention of the seawall.
- Conduct a capacity and condition analysis of the existing infrastructure.
- Initiate work with Xcel Energy to design a relocated power line and refine the cost estimate, starting with a request to Xcel for an initial free cost estimate and proceeding to full design if appropriate.

Public Involvement Activities

- Seek community and policy-maker input on the initial conclusions to inform the following next steps.

Environmental Activities

- Conduct Environmental Phase 1 Assessment (ESA) as needed for developer due diligence (Reports updated by City or developer good for 180 days). Phase 2 environmental report and testing dependent on existing Phase 1 study, currently under review.

Public Improvements

- Conduct Multimodal Traffic Study – Compare viable scenarios or evaluate preferred
- Conduct Trip Generation/Distribution/Traffic Forecasting
  - AM/PM peak traffic operations – future build and no build
  - Impact analysis of potential bridge connection over Interstate 94 at 34th Avenue
  - Determine street geometrics
  - Determine Transit Improvements
  - Bicycle and pedestrian access and facilities
- Reach consensus on the public improvement package expected to be needed and complete initial schematic design and engineering to verify the feasibility of the proposed package. This will include working with the railroad to determine the feasibility of a relocated rail crossing at 34th Ave. N., reviewing the cost-benefit of the separate backage road, identifying rights-of-way to be dedicated, and refining cost estimates. Follow up with complete design for any near-term priority infrastructure project(s) for which funding is available and preparation of any materials that will be needed to pursue funding for other projects.
- Identify potential funding sources for public and park improvements; this may include seeking special legislation to enhance the use of tax increment financing and a possible updating or amendment of the Comprehensive Economic Development Strategy (CEDS) to make the site eligible for EDA funding.
- Conduct geotechnical subsurface investigations as projects move forward.

Right of Way and Easements

- Initiate activities needed to clear title, including working with the railroad to remove easements.
- Work with Xcel to transfer easements for transmission line changes.
- Consider plat preparation.

Planning, Zoning, Land Use and Economic Development

- Explore the feasibility of improving transit access to the area.
- Continue interim use of the site for storage purposes to generate revenue to offset costs and to maintain site activity and security.
- Reach as much clarity as possible on a mutually approved boundary between City development land and Park Board land (informed by the outcome of work to determine if any existing structures and the seawall could remain); follow up as appropriate with seeking Metropolitan Council approval of Above the Falls Master Plan Update and Above the Falls Regional Park Plan; also reach agreement as to land transaction parameters, including clarity as to the anticipated timing for park acquisitions and improvement.
- Complete the process to create the "business park" zoning category and rezone the site accordingly.
- Start a process to identify both a permanent destination use that would be appropriate at Dowling and the river and one or more temporary destination uses that could activate the north end of the site in the interim.

LONG-TERM (BEYOND 1 YEAR)

Existing Structures and Utilities

- Pursue adaptive reuse of any of the existing structures for which viable proposals are received.

Planning, Zoning, Land Use and Economic Development

- Complete an Alternative Urban Areawide Review (AUAR) (including a Traffic Demand Management Plan) to evaluate the environmental impacts of a range of development options in order to enhance the site's marketability by completing the environmental review.
- Develop a marketing strategy for private development parcels, prepare the necessary marketing materials and begin implementation.
- Review the design guidelines for private development and public realm improvements in the Above the Falls Master Plan Update and update/refine them as appropriate.

Public Involvement Activities

- Conduct community engagement to seek input on the nature of park improvements, particularly on the northern half of the site.
- Conduct community engagement as appropriate prior to issuing development requests for proposals and to provide periodic updates throughout the process.

Public Improvements

- Conduct Travel Demand Management Plan
  - Multimodal Traffic Study is included
  - Parking Study
  - TDM strategies
- Continue design and engineering of public improvements as implementation becomes timely.
- Prepare and pursue funding strategies for park and other public improvements and power line relocation, then implement those projects when they are funded and timely.
- Explore what would be needed along Dowling Avenue west of I-94 to enhance connections to the northside neighborhoods via Dowling Avenue.
- Conduct a traffic study to explore the viability of a bike, pedestrian and auto crossing over I-94 at 34th Ave. N.
- Transition out of interim management as appropriate, clearing any features that will not be retained for new uses.

Minneapolis
City of Lakes

Upper Harbor Terminal

TECHNICAL ANALYSIS STUDY

December 2014