

June 2021

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Cover Image from RSP Architects drawings for proposed Water Yard facility at the Hiawatha Campus (See Appendix). Architectural design elements are transferrable to the construction of the new facility on other sites.

Executive Summary

The Water Distribution Yard has been scheduled for replacement for the past ten years. The existing facility is not configured for the existing operation and the amount of staff and equipment needed to support the operation and maintenance of the City's 1,000-mile water system.

As part of Property Services' Facility Master Plan, the new facility was to be relocated to the Roof Depot site. This new location is adjacent to the existing Public Works Field Operations Maintenance Facility on Hiawatha Avenue at East 26th Street. With the addition of the 6-acre Roof Depot Site, the City would own a continuous reach of land bounded on the north by E 26th Street and by East 28th Street to the south. In 2016 the site was purchased with Water enterprise funds for \$6.6 million. The space needed for the new Water Yard was approximately half of the Roof Depot parcel. The other half of the parcel was intended to be used to add space to meet the needs of other Public Works Divisions. The project is called the Hiawatha Campus Expansion. The design is substantially complete for the structures and other upgrades included in the project.

The siting of the Hiawatha Campus Expansion is problematic. The adjacent property to the east was a US EPA Superfund site contaminated with lead and arsenic that took millions of dollars and years to remediate. The addition of the Hiawatha Campus Expansion facilities and the relocation of a large amount of staff and equipment was not taken into consideration. According to the state Department of Health, residents of this neighborhood suffer some of the highest rates of asthma hospitalizations in Minnesota. The community has sought environmental justice to provide equity of opportunity for children to thrive. While the new City facilities are designed as slab on grade to minimize the amount of site remediation, during construction, demolition and site clearing activities will result in unassessed risk from legacy contamination, unaccounted costs, and increased exposure to the neighborhood from dust and from truck traffic hauling hazardous waste to landfills and will require dust mitigation.

This document is intended to propose an alternative solution, demolition of the primary operations building at the existing site in Southeast Minneapolis and reconstruction of a new Water Yard facility. Redeveloping the existing site presents several opportunities including:



The existing Water Yard sign. *Photo digitally* enhanced for clarity

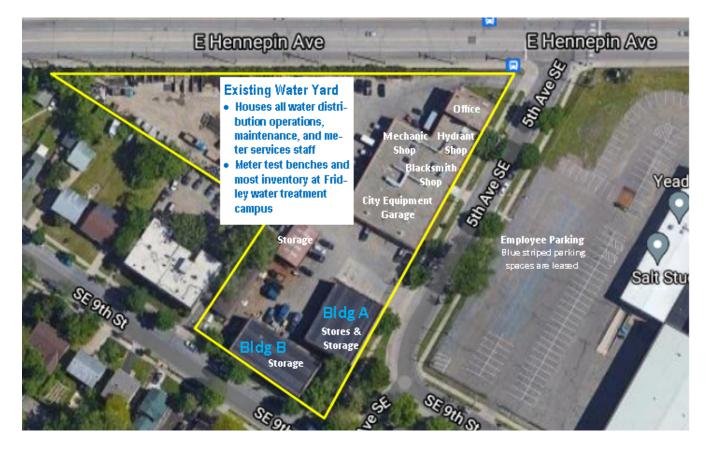


• Maintaining the functionality and vitality of historic buildings on the south end of the property in recognition of the role of the Water Yard's 123-year history of water system operations from its present site.

- **Building with a carbon-free goal.** Unlike the Roof Depot site, the existing site is not contaminated. This could be an opportunity for the City to use geothermal energy for heating and cooling the facility. By installing solar panels on the roof, solar energy could be used to help power the pumps that circulate the heating and cooling lines. By creating a first of its kind city facility, the City could demonstrate commitment to its goals in the Minneapolis 2040 plan.
- Utilizing the design of the new facility that RSP created for the Roof Depot site. The functional layouts for the office, locker rooms, lunchrooms and shop spaces can be incorporated into the plans for redevelopment at the existing site with minimal alterations.

Water Yard Established at Existing Site in 1898

In 1898, Minneapolis was a 31-year-old burgeoning City that needed to expand its water infrastructure to support fire protection and household use. To support water system needs, two buildings were built to support water field operations. One of the original buildings was an administration and storage building (labelled A in the diagram below and the other was a horse barn (labelled Building B), to stable work horses that hauled water main, hydrants, and valves to worksites for installation by water field crews. Present-day operations activities are primarily housed out of the main building at 935 5th Avenue SE that was built in 1923. The two original buildings are still in use for storage. In this proposal, the main building would be replaced, and the two historic buildings would continue to be used for storage.





Building cornerstone on the Building B facing the residential neighborhood on 9th St SE



Building A. This building was the base of field operations for the water field crews. It currently serves as the Water stores building

View from inside the horse barn (Building B).



Building B. This building was the horse barn for the Water work horses. Building is currently used to store materials.



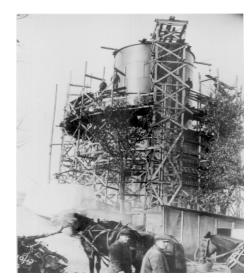
Construction of Kenwood Water Tower. Photo from Hennepin County Library's Minneapolis Photo Collection.

A Sense of Place

"Sense of Place usually is defined as an overarching impression encompassing the general ways in which people feel about places, senses it, and assign concepts and values to it..."

"...Considering dimensions of sense of place has always been beneficial for investigating public place attachment and pro-environmental attitudes towards these places. The creation or preservation of Sense of place is important in maintaining the quality of the environment as well as the integrity of human life within it."

-The Concept of Place and Sense of Place In Architectural Studies- Mina Najafi, Mustafa Kamal Bin Mohd Shariff



Hayloft is still intact.

The legacy of the past water employees who built a massive complex water system that is still viable and resilient today is connected to the workforce of today by a sense of place. In 2015, the Minneapolis Star Tribune wrote an article about the Water Yard (see Appendix B). While the focus of the article was about the inadequate space for current operations, the underlying sense of pride and purpose is apparent in the workforce. While todays staff has better tools and is starting to better represent the demographics of the communities they serve, they have the same sense of commitment and self-identity as their predecessors. Below are staff photos of the Water Yard staff from 1939 and from 2014. These are two of many workforce "family" photos that are displayed on the walls in the Water Yard in recognition of the many contributors that created and are stewards of the infrastructure that provides safe drinking water and fire protection for all who live, work, or visit Minneapolis.





Neighborhood Engagement

Marcy-Holmes Neighborhood – Development Consistent with Neighborhood Master Plan

The existing Water Yard site is in the Marcy-Holmes Neighborhood. Before proposing redevelopment at the existing site, the 2003 Marcy-Holmes Neighborhood Association's Master Plan prepared by Dahlgren, Shardlow, and Uban, Inc. was reviewed to determine if re-development was consistent with the neighborhood's vision. A theme of preservation is established in the Master Plan's Introduction." The neighborhood is the oldest in the city and has a rich history. The neighborhood organizations believe they and the City of Minneapolis have an obligation to preserve and enhance this historic character."

The Economic Development chapter specifically addresses the location of the existing Water Yard, colored in blue with pink cross-hatching in the diagram below. A Policy statement in the Master Plan reads "The neighborhood supports the continuation of the industrial businesses along 9th Street. Surplus frontage on 8th Street should be converted to housing or considered for a community center." It appears that the reuse of the two historic buildings and the reconstruction of the main building would be consistent with the Neighborhood Association's Master Plan. The existing Water Yard operations also has a good relationship with its Marcy-Holmes neighbors.



East Phillips Neighborhood- Opposed to Relocation of Water Yard to Roof Depot Site

In contrast, the East Phillips Neighborhood has opposed the Hiawatha campus expansion project at the Roof Depot site since the City's purchase of that property was first proposed in 1991. The Roof Depot is in a neighborhood with a high percentage of BIPOC residents that is adjacent to a US EPA Superfund site dubbed the "Arsenic Triangle" since it was heavily contaminated with lead and arsenic from industrial stockpiles of pesticides. After years of remediation and unknown expense, the Superfund site has been cleaned up. Since contaminates migrate across property lines, the Roof Depot property redevelopment poses an unknown risk of contamination that could be released during demolition and hauling activities. In March 2021 the public comment period closed for the environmental assessment worksheet for the Hiawatha Campus Expansion. It has been reported that the City received approximately 1,000 comments.

Throughout the City's community engagement process for the redevelopment of the Roof Depot site, the Neighborhood has actively voiced its concern. Protests have also been held in opposition to the City's redevelopment. In 2020 the East Phillips Improvement Coalition (EPIC) filed a lawsuit to stop the development.

Pictured below are homemade signs adorning the fence of the now vacant Roof Depot Property calling for environmental justice. Photo from April 7. 2021 Star *Tribune* Article (see Appendix D).



In place of the City's development of a Water Yard on this site, the Neighborhood has developed a vision to re-use the Roof Depot warehouse for "urban farming, aquaponics, low-income apartments, an industrial kitchen and mom-and-pop retail." They appear to have identified financial backing to purchase the Roof Depot property from the City.

From the Star Tribune article in Appendix D. "A November letter of intent from Agro Fund One's Mark Erjavec states, "Agro Fund One is ready to get involved,

highly interested and believes that this project will bring economic, social and environmental justice for the East Phillips neighborhood."

New Structure to Meet Increased Space Needs

The existing site is challenging since the parcel is irregularly shaped. The space needs have outgrown the structure of the main building. While the building is large, it is one story in height for the most part. The second story is only big enough to house three workstations, about one-third of the staff lockers and a bathroom.

To optimize the use of the site, the new facility would need to be a full two-story structure. On the next page is a scaled layout of a new structure on the existing lot that provides the space needs identified by RSP and incorporates the dimensions and functional layout from RSP's design of the Water facility intended for the roof depot site. For reference, RSP's design and renderings are included in Appendix A. Note that these documents were prepared for the Hiawatha Campus Expansion site and have been adapted and re-configured to conform to the Water Yard's existing site. Concepts and layout for these proposed modifications will need to be revalidated and refined during the design phase. The spatial dimensions of this layout are provided in Appendix C. The new building configuration would allow storm water quality and quantity best management practices to be put in place. The existing site is composed almost entirely of impervious surface.

Temporary Space During Construction

The City's Public Works Department recently moved the North East Street Maintenance from its former location at 1809 Washington St NE / 1803 Jefferson St NE to the new Solid Waste and Recycling building on 27th and University Avenue NE. This vacant building and grounds could be used to house the Water Yard during construction at its existing site. While the 2.26 Acre site is not optimally configured for operational efficiency and response time to the southern part of the City would increase, it could be a possible short-term home for the Water Yard during construction.



1809 Washington St NE / 1803 Jefferson St NE

Construction Cost Savings

As of the end of 2020, the Water fund's share of the estimated \$100 million Hiawatha Campus Expansion project costs was \$55 million. By rebuilding on the existing site, the new Water Yard will likely be considerably cheaper. The development of the site for activities of a single work group and the lack of contaminated soils are just two contributing factors that will likely result in cost savings.

Note that these documents were prepared for the Hiawatha Campus Expansion site and have been adapted and re-configured to conform to the Water Yard's existing site. Concepts and layout for these proposed modifications will need to be revalidated and refined during the design phase. Storm Wat **Complete Structure** • Solar Panels on Roof torm Wate Detention **1st Floor Construct** Garage for Visitors and Employees with Charging stations for Electric Vehicles with 2nd Floor Footprint Second floor office space per design by RSP for Building F, Hiawatha Campus Expansion in Appendix A. First Floor height of garage door openings and ceiling clearance to be 14' for heavy construction equipment. New Water Yard **1st Floor Footprint** HENNEPIN AVE E Storm Water Detention Garage for City Equipment Office & Shop dimensions and and Vehicles layout according to RSP plans 3 for Hiawatha Building F. See STHAVE Appendix C for E Hennepin site specific modifications. Storage racking in RSP Building F plans to reside in existing warehouse buildings. Mechanic shop and wash bay added in lieu of storage on west end of First Floor Architectural details from RSP's building F exterior to be incorporated at this site.

Building with a Carbon-Free Goal

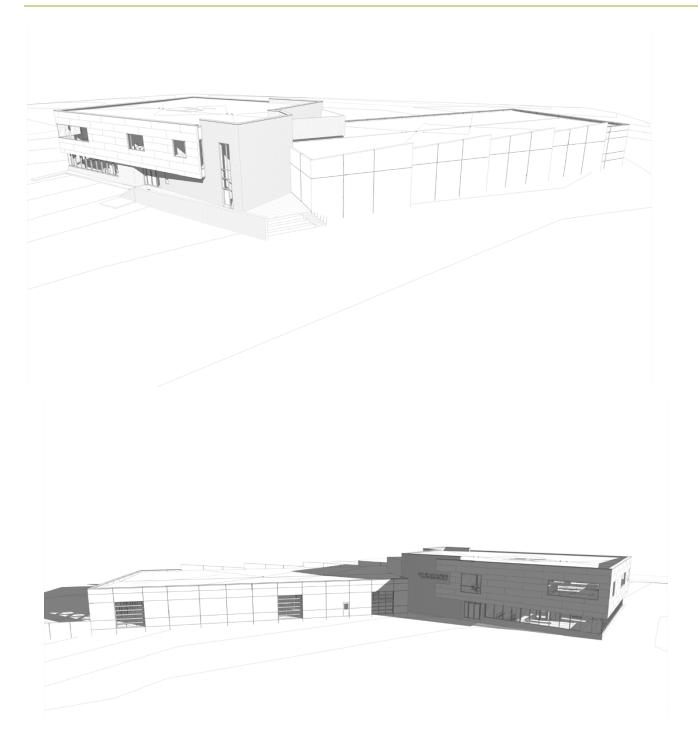
Constructing a replacement facility on the existing is site has two distinct advantages: unlike the Roof Depot site, the ground is not contaminated and there are no buried utilities. This could be an opportunity for the City to use geothermal energy for heating and cooling the facility. By installing solar panels on the vast expanse of a roof, solar energy could be used to help power the pumps that circulate the heating and cooling lines. By creating this first of its kind city facility, the City could demonstrate commitment to its goals in the Minneapolis 2040 Policy 69 Renewable and Carbon-Free Energy: Encourage the use and generation of renewable and carbon-free energy in the city.

Conclusion

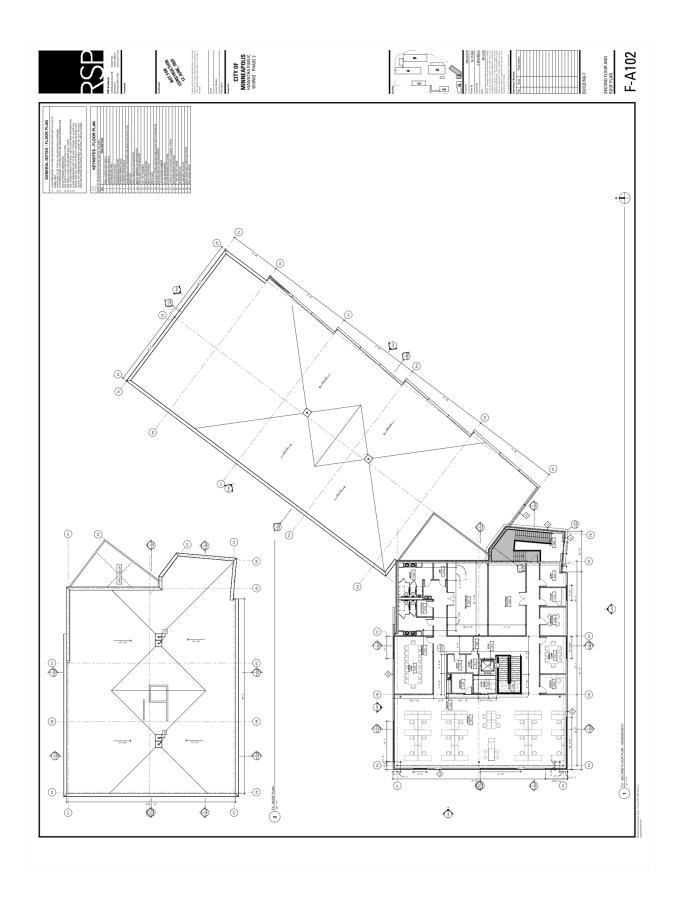
By removing the existing main building at the Water Yard and replacing it with a new two-story facility that makes more effective use of the space, the City has an opportunity to accomplish:

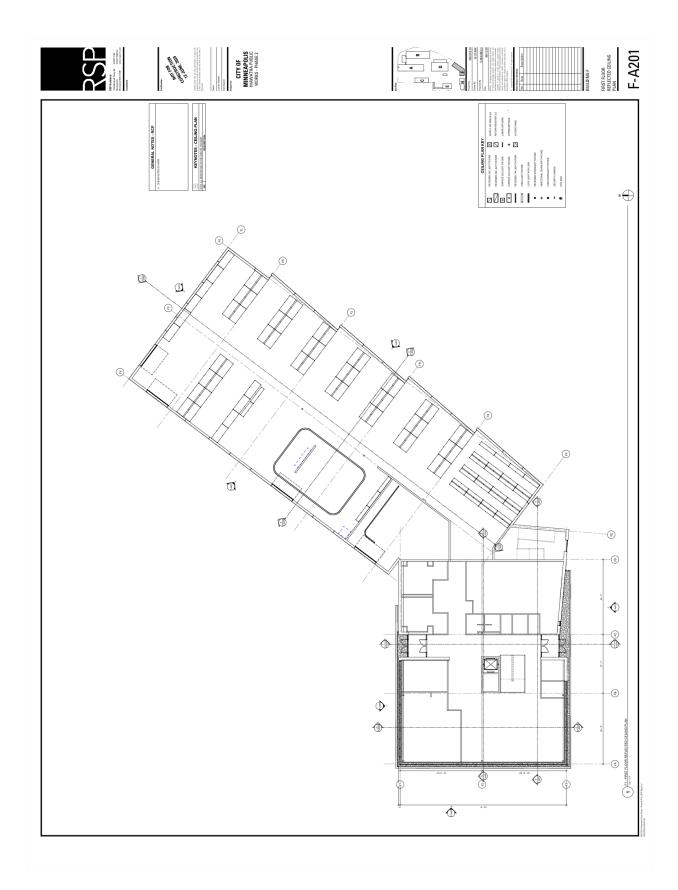
- Providing a space that is sufficient and functionally laid out to effectively support Water field operations
- Preserving historic buildings and continuing to use them.
- Maintaining a sense of identity and common purpose for Water staff.
- Re-developing the land in a way that is consistent with and respectful of the Neighborhood Master Plan.
- Taking steps towards the City's commitment to carbon-free building goals.
- Using RSP's design for the Water facility at Roof Depot.
- Making use of City owned land
- Maintain a central location to minimize response time for Water crews to travel to any part of the City.

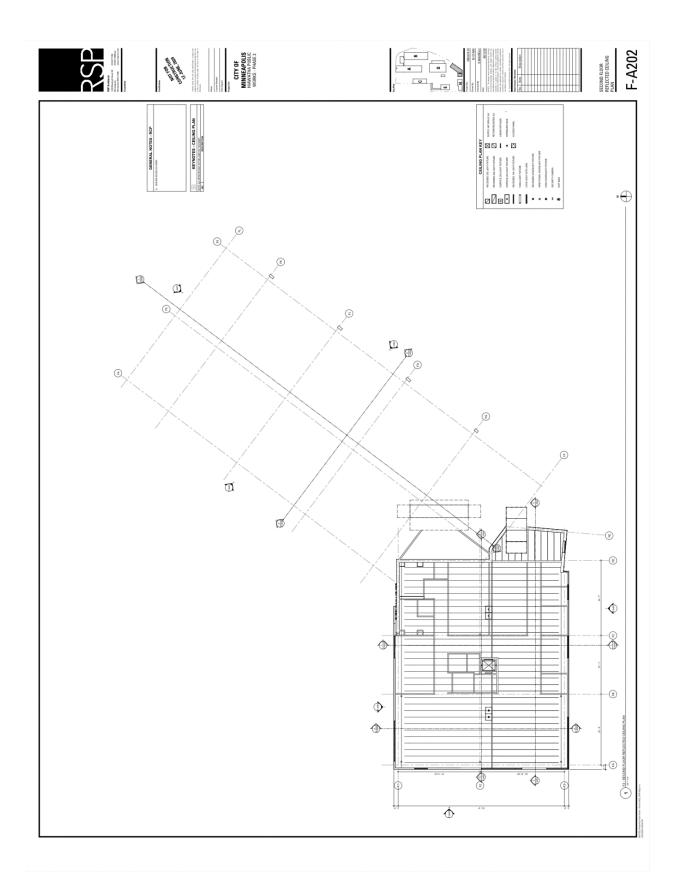
Appendix A - RSP Hiawatha Campus Bldg. F Drawings

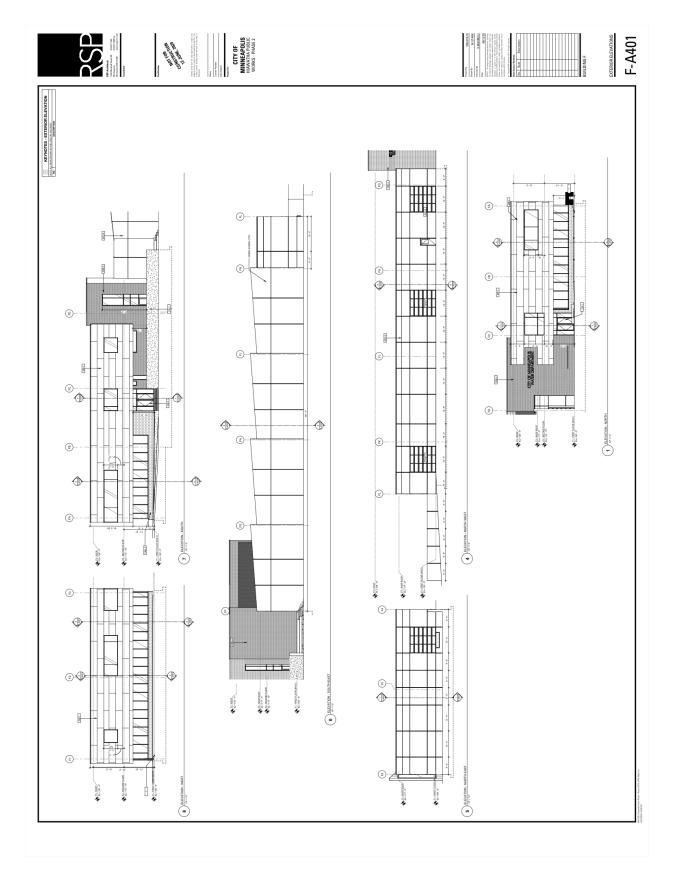


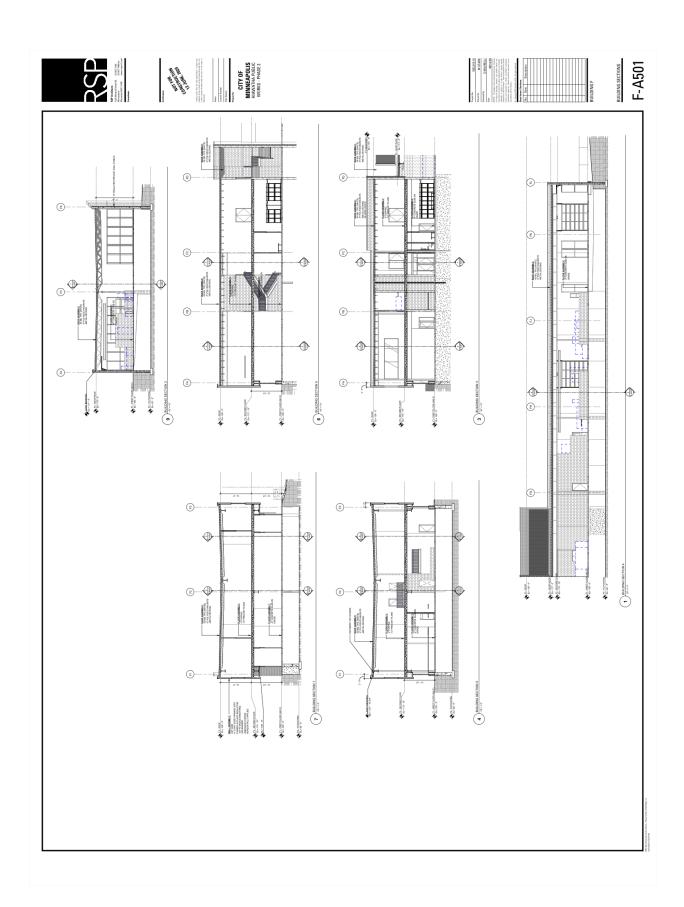


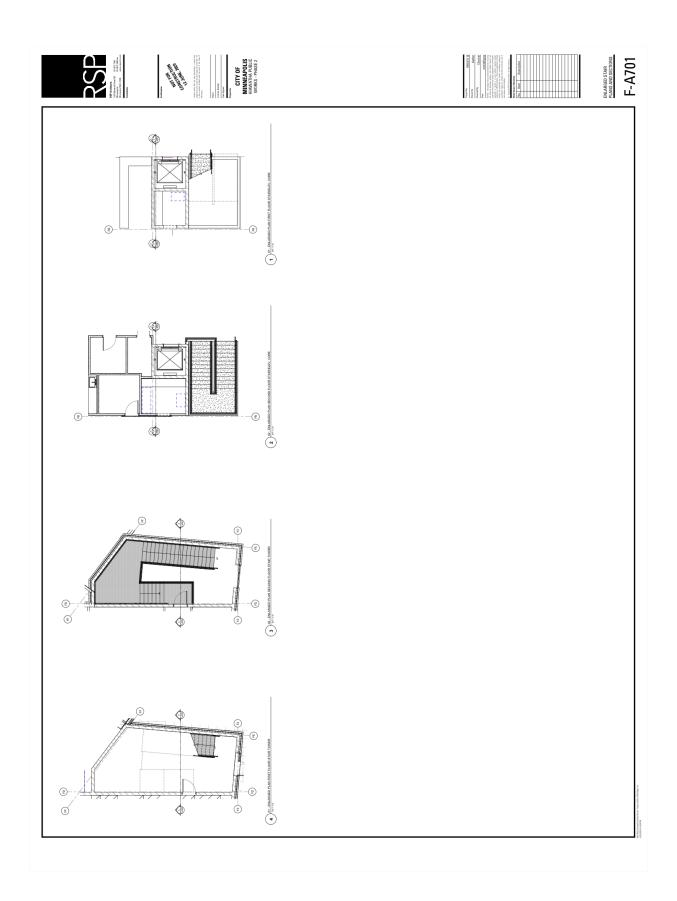












Appendix B – Star Tribune Article: Water Yard

MINNEAPOLIS

Minneapolis waterworks shop a blast from the past

Blacksmith plies his trade in cramped quarters as city leaders try to find new space in south Minneapolis.

By Steve Brandt Star Tribune

APRIL 25, 2015 - 8:39AM

Gallery: Metal fabricator/welding specialist Nick Bounds welded a part at the Minneapolis Water Works Eastside Yard in Minneapolis, Minn., on Friday, April 16, 2015.

As a city of Minneapolis blacksmith, Nick Bounds plies his throwback craft in a century-old building that's become far too small for the duties of a booming city.

"I'm always hitting this wall, that machine," he said, describing a job in which he hefts 20-foot lengths of steel pipe. "This building is way too small."

Bounds works in the little-known East Yard, helping crews maintain a sprawling network of water pipes and hydrants around the city.

Replacing that maintenance yard is the last major unfinished piece of a 25-year-old master plan for updating city Department of Public Works facilities. But finding a new place for Bounds and his co-workers to hang their tools has brought years of challenge and plenty of political obstacles.

Now there's hope on the horizon. The city wants to expand its major South Side base at 1901 E. 26th St. to accommodate the water crews. Then city property officials want to move the water maintenance base to the adjacent Roof Depot property, forming one large public works base.

The City Council would need to authorize that, something its predecessors did years ago as part of an initiative that was never completed. But the City Council member representing the area, Alondra Cano, opposes that plan.

Map: East Yard

For now, Bounds does his job at a facility that dates back almost 120 years. The 2.4-acre East Yard complex is tucked into a bend of E. Hennepin Avenue. One brick building there dates to 1898; it was formerly used to stable the sturdy horses that pulled water maintenance crews and equipment around the city to build and repair water mains. The hayloft of that post-and-beam barn is still sturdy enough to serve as a boneyard for hulking metal valves that await their turn in a city water system nearly 150 years old.

The place is so cramped that about two-thirds of the division's outdoor storage is at two suburban plants in Fridley and Columbia Heights. That hinders efficiency, said Marie Asgian, the city's water distribution supervisor.

"You guys have been talking about moving out for decades," her boss, Glen Gerads, joked recently.

Cano, the council member, said shifting the water base to her neighborhood ignores longfestering concerns about the health and neighborhood impacts of heavy industrial use nearby. Even though the area is zoned for industrial uses, Cano said she favors creating a green zone there of more eco-friendly enterprises.

It is a battle is being played out far above Bounds' pay grade. The 47-year-old graduate of North High School and the Dunwoody College of Technology is a 15-year city employee who has spent the past four years at the East Yard.

He makes simple but specialized tools that allow water crews to operate valves deep in manholes, open hydrants, level sections of pipe and scrape off corrosion. His job is mostly welding — the fusing of pieces of steel together — but occasionally he also heats and beats metal as a blacksmith would.

Sparks spray when Bounds welds, but the creosoted wooden floor is too dense to ignite. There's a horseshoe print burned into one doorway of the room by a long-ago blacksmith.

"We're going to have to take a little bit of this wood to the new place for nostalgia," said foreman Brian Olson.

The pluses of moving

Another reason water officials would like to move the yard is to get the entire maintenance division under one roof. About 75 people work from the base, most heading out shortly after 7 a.m. to tend to the city's 986 miles of water pipes, the 17,597 valves that control them and 8,053 hydrants, returning in midafternoon. Another 22 workers repair meters in Fridley.

There's also not enough indoor garage space for the division's maintenance vehicles, many of which hold valves or computers that can't be left in freezing weather. Trying to squeeze as many as possible inside buildings is a daily jigsaw puzzle.

Moving could also help transform an increasingly vibrant corner of the East Side, where developers are eyeing new business and living space. Leaving would open a new site for Fire

Station 11, giving it better access to Hennepin. That might free part of the site, notably the two 19th-century buildings, for private redevelopment.

'I love welding'

While the East Yard's fate is determined, Bounds will continue fabricating tools. His specialty is welding the long stems that water crews use to open and shut subterranean valves. Crews in the field muscle aside a 205-pound manhole cover, reach 8 or so feet down with the long stem Bounds crafted to engage a valve's control hub, and rotate it to constrict the flow of water to mains or hydrants when repairs are needed.

"In all honesty, it's not hard to me," Bounds said about his job. "I've been doing it so long. I love welding. I love fabricating. It's like art."

RENÉE JONES SCHNEIDER • RENEEJONES@STARTRIBUNE.COM

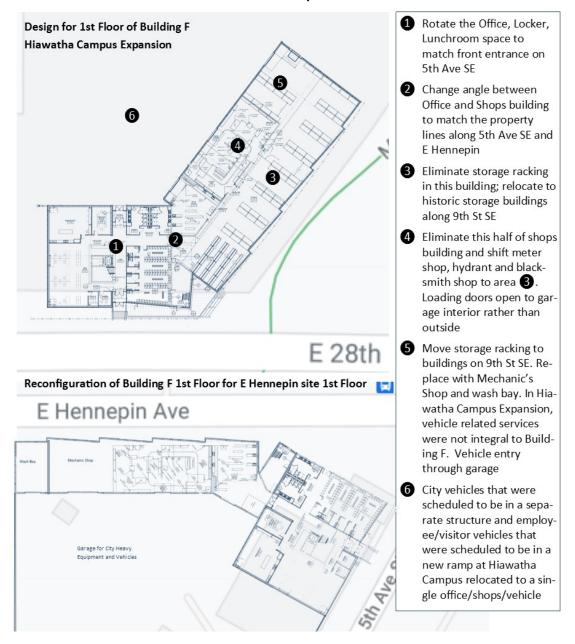
Nick Bounds welded a part at the city of Minneapolis' East Yard, where crews maintain a vast network of water pipes and hydrants.

More

Twitter: @brandtstrib

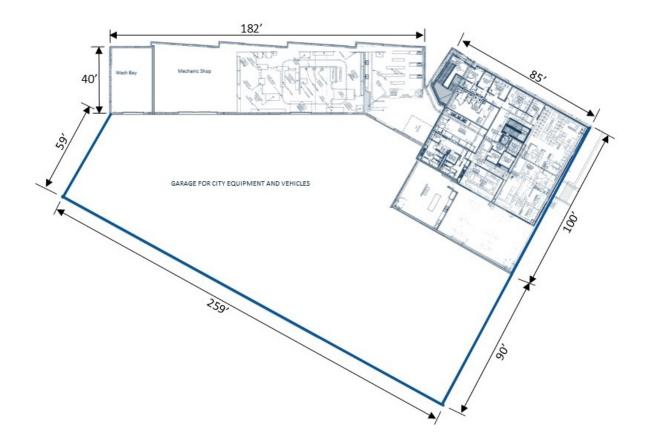
Appendix C – New Facility Layout

Reconfiguration of RSP's design for Building F (Water office, shops and storage) to match the existing Water Yard Site in southeast Minneapolis:



Note that these documents were prepared for the Hiawatha Campus Expansion site and have been adapted and re-configured to conform to the Water Yard's existing site. Concepts and layout for these proposed modifications will need to be revalidated and refined during the design phase.

Dimensioned Layout of Proposed Building Footprint:



Note that these documents were prepared for the Hiawatha Campus Expansion site and have been adapted and re-configured to conform to the Water Yard's existing site. Concepts and layout for these proposed modifications will need to be revalidated and refined during the design phase.

Appendix D – Star Tribune Article: Roof Depot

LOCAL

Some on Minneapolis City Council say they want to cancel water facility, sell site for urban farm

More council members want to give the neighborhood a bigger say in land use By <u>Susan Du</u> Star Tribune

APRIL 7, 2021 - 7:15AM



JEFF WHEELER • STAR TRIBUNE

Community organizer Joe Vital, who grew up in the East Phillips neighborhood, worries about pollution at the site. "It is an environmental injustice going on there," he said.

Trees have been chopped down to make way for demolition of the former Roof Depot warehouse as the city of Minneapolis moves forward with constructing a new water yard, despite years of opposition from organized residents.

But a coalition of Minneapolis City Council members, including Vice President Andrea Jenkins, Cam Gordon, Alondra Cano and Andrew Johnson, is offering new hope for neighborhood proponents of saving the building at 1860 28th St. E. for a community-owned urban farm.

A draft staff directive calls for suspending "all aspects" of the city's work to expand the Hiawatha Maintenance Facility, find an alternative site for the water yard and propose a planning process in partnership with East Phillips residents.

The council members say they shifted their views and now side with the neighborhood for several reasons: the city's declaration of racism as a public health emergency, its establishment of a truth-and-reconciliation process and the displacement of Black, Indigenous and other business owners of color during the civil unrest on Lake Street last summer.

Gordon said he intends to propose the motion when Roof Depot next appears on the agenda of the Business, Inspections, Housing and Zoning Committee.

"We've really been trying to dig in to figure out more ways we can address historical harms that have been done [in East Phillips]," he said. "There does seems to be a groundswell of community support to rethink this, too."



JEFF WHEELER • STAR TRIBUNE

Signs supporting a community role for the Roof Depot have been affixed to the fence surrounding the property.

Support for the change on the council isn't universal. Council President Lisa Bender cautioned colleagues against canceling the water yard before fully understanding the consequences.

"The main impetus for this project is to make sure that our city's water system is maintained," Bender said. The city has eyed the Roof Depot site since 1991 and purchased the building in 2016. In 2018, council members unanimously voted to relocate water distribution services there from 935 SE. 5th Av.

The city's water division oversees more than 1,000 miles of underground water main, which supplies the drinking water of Minneapolis and seven surrounding cities. Its current building is crumbling and inaccessible to people with disabilities.

As climate change exacerbates flooding and stresses sewers with every major storm, city workers need a new headquarters with upgraded facilities to store their emergency vehicles and repair equipment.

Simultaneously, the <u>East Phillips Neighborhood Institute</u> has developed a vision that would spare the old warehouse and reuse it for urban farming, aquaponics, low-income apartments, an industrial kitchen and mom-and-pop retail.

Its proponents include a diverse cohort of residents and environmental activists who have spent years urging the city to recognize the negative health consequences caused by a concentration of heavy industries in East Phillips, including an old Superfund site left over from chemical companies that stockpiled arsenic- and lead-based pesticides at the corner of 28th Street and Hiawatha Avenue.

"It is an environmental injustice going on there. We have to remember that that was an undesirable zone dictated by the city when it was redlining. ... Like all the things we're seeing now, it is not by mistake," said community organizer Joe Vital, who lived in Little Earth of United Tribes as a child.

According to the state Department of Health, Little Earth residents suffer some of the highest rates of asthma hospitalizations in Minnesota. Vital said many of his friends and relatives died early after developing lead poisoning and other health issues.

"Given the impact of the coronavirus which impacts how people can breathe — and that that community has been impacted by asthma rates, heart disease, other respiratory issues — in light of all those new developments, I shifted my own opinion about that site," said Jenkins, the council vice president.

She said she would like to see East Phillips residents take ownership if they can find an investor to buy the site for \$6.8 million, which is what the city's Water Fund paid for it. The account, funded by fees paid by water customers, must be reimbursed under state law.

According to city staff, the Water Fund has spent \$9.8 million on the water yard to date.

"There is a need for water safety in our community so I don't want us to necessarily discount that," Jenkins added. "We've got to figure out where else we can locate a water maintenance facility. That's going to be a part of the equation as well."

Dean Dovolis of DJR Architects, a commercial designer and member of the East Phillips Neighborhood Institute, said the agricultural investment fund Agro Fund One will help residents purchase the building.

A November letter of intent from Agro Fund One's Mark Erjavec states, "Agro Fund One is ready to get involved, highly interested and believes that this project will bring economic, social and environmental justice for the East Phillips neighborhood."

The city has completed a lengthy environmental-assessment worksheet for the water yard. Proponents of the urban farm say it's less thorough than an environmental-impact statement and doesn't take into account cumulative pollution sources.

The environmental assessment worksheet's public comment period closed March 25, and staff are now reading and sorting comments. A review will be presented May 4 to the City Council's Business, Inspections, Housing and Zoning Committee. The review was postponed from April 20 after the city received about 1,000 comments, according to staff.

The council members who have publicly declared support for the indoor farm are currently a minority faction and it remains to be seen if the East Phillips Neighborhood Institute can recruit more leaders, including veto-wielding Mayor Jacob Frey.

Bender said that, in her opinion, the functioning of the water system is "nonnegotiable."

"This is a critical function that the city government provides, that people expect and probably take for granted, that when you turn on the tap, clean water comes out," she said. "When you flush the toilet, the sewer system is working."

Susan Du covers the city of Minneapolis for the Star Tribune.

susan.du@startribune.com 612-673-4028 shijundu