



# CITY OF LINO LAKES

Public Works Site Analysis and  
Space Needs Study



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# EXECUTIVE SUMMARY

# EXECUTIVE SUMMARY

## Site A



## Introduction

The main facility of the current Lino Lakes Public Works Facility was built in 1971 with several additional cold storage sheds, salt and brine shed, and a mobile office out-building added to the site, since that time. The current site is on the northwest portion of Lino Lakes, off Main Street. While the facility has functioned in the past 45 years, the City Council and staff determined that it would be appropriate to analyze the condition of the current buildings along with the operational needs of the Public Works Department to best serve the community for the next 20 years. The long-term growth anticipated for the Public Works facility was also selected to be analyzed with two possible sites to be considered - the current location labeled Site A in this study and the site adjacent to Fire Station #2 on Centerville Road and Birch Street referred to as Site B.

With this goal in mind, the City of Lino Lakes contracted CNH Architects to perform an analysis of three approaches for the Public Works Facility, now and into the future. The goal of this study is to provide evidence based recommendations to address the needs of each department and analyze site conditions for each site. This study evaluates each of the sites identified, rating them for a broad series of attributes. The information provided in this study includes site data, gathered and analyzed by CNH Architects and valuable input from Lino Lakes city staff. The report includes this Executive Summary followed by supporting data and diagrams.

## Site B



## Process

Over the past few months, CNH Architects and our consulting team performed a detailed study and analysis. The study process evaluated the following four major steps:

Step 1: Assess conditions of the current facility, including taking photos of the existing site. This step includes reviewing current code and accessibility compliance, deferred maintenance, and short-term anticipated maintenance requirements.

Step 2: Develop a Space Needs Program of current space needs, as well as evaluating impacts on the space needs based on the projected growth of the City of Lino Lakes by 2040. This step started by gathering data from Lino Lakes city staff regarding current and projected space and site needs. Other public works facilities in similar, neighboring communities were reviewed as comparative case studies to create proper metrics for gauging the appropriate scope of work.

Step 3: Develop an analysis of relevant site attributes for the two sites being considered. This analysis includes availability of public utilities, buildable area after easement and wetlands were located, efficiency of potential space use, and adjacent land uses.

Step 4: Develop a total of three preliminary site and building layouts on the two proposed sites and obtain cost estimates for each option. The three options that have been identified for evaluation for the Public Works Facility are shown on the Public Works Facility Site Option Map and consist of the following:

- Option A1: Remodel & Building Expansion on Existing Public Works Site (Site A)
- Option A2: New Facility on Existing Public Works Site (Site A)
- Option B1: New Facility at Birch Street & Centerville Road adjacent to Fire Station #2 (Site B)

# EXECUTIVE SUMMARY

## Conclusions

The study determined that the existing facility, while having served the city well for 45 years, has fallen well behind current standards both for codes, safety, facility maintenance and appropriate size for a Public Works Department serving a city, the size of Lino Lakes. The building's code deficiencies include total lack of accessibility standards, multiple building code noncompliance items, OSHA workplace concerns, inappropriate sanitary waste conditions, and significant HVAC air quality issues. Similarly, the existing building has deferred maintenance issues such as leaking roof and windows as well as future near-term maintenance items that will require attention in the next 1 to 5 years. These items can all be addressed by remodeling or replacement, but need to be factored into the cost of relevant options being evaluated.

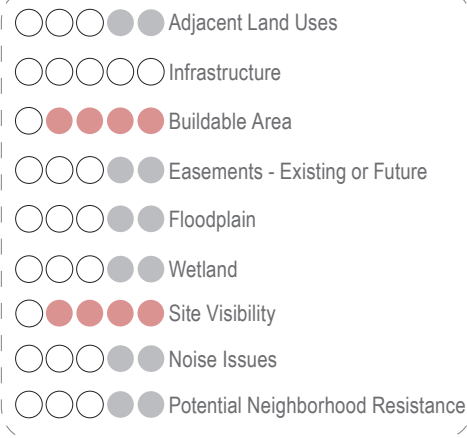
The review of the Space Needs for the Public Works Department, evaluated current space use, shortfalls in needed space, and the future growth in staff and equipment projected within the study timeframe of looking forward to 2040 needs. The approach included storage of all vehicles, equipment and equipment accessories within a weather-protected semi-heated facility as is typical within current public works facilities. This approach will provide long term value to the city in significantly longer lifespan of the equipment and reduced upkeep. The results of the Space Needs Program indicate a need for a total building area around 80,000 square feet by the end of the 2040 timeframe. The study indicates that all categories are short of space, currently with the largest shortage being in the Vehicle Storage category. Based on this review, we recommend a two-step construction with Phase 1 addressing current and near-term shortfalls and Phase 2 adding additional Vehicle Storage space later in the masterplan. With this phased approach, the Space Needs Program indicated a Phase 1 size of approximately 55,000 square feet with Phase 2 adding the remaining 30,000 square feet of Vehicle Storage.

These Space Needs were then compared to facilities at Hugo, Shoreview, Otsego and Hopkins. The areas of each category of space were translated in square feet per population to equalize the comparisons. The results indicate that Phase 1 Space Needs area goals are very conservative being at or under the areas represented by all the cities in comparison. The Phase 2 Space Needs area goals for the Vehicle Storage category rise into the middle of the comparison data still remaining conservative as this phase for Lino Lakes looks out to 2040 and beyond.

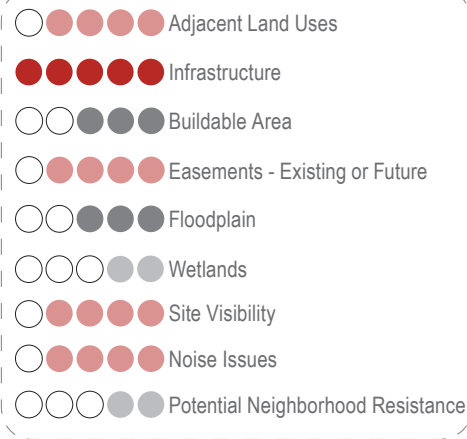
The next step of the study analyzed site characteristics of the two potential sites being considered for the future Public Works Facility, Site A, the current Public Works site and Site B, adjacent to Fire Station #2. Site A scored moderately positive on buildable area and site visibility and moderately negative on six other statistics. It scored negative on the infrastructure due to the current lack of municipal water and sanitary sewer serving the site, which would be required to remodel or replace the facility on this site. In review of Site B, this location rated infrastructure as a positive since all utilities are already stubbed to the site from the fire station work. This site rated moderately positive for four statistics, neutral for buildable area and flood plain, and moderately negative for two remaining items. However, understanding not all statistics are of equal weight, Site A scored an average of 2.22 out of 5 total points and Site B scored an average of 3.44 out of 5 total points. While Site B has features that result in a better analysis, both sites are workable and can be considered for the future of the Public Works Department, assuming of course that municipal water and sanitary sewer is extended to Site A.

Finally, the study developed three public work facility masterplan site layout options representing both a remodel / expansion approach as well as all new facilities. All three options result in facilities that function and meet the minimum goals of the Space Needs Program. The following are highlights of each option with more detailed information to be found in the main body of the study report. As shown in the cost analysis, there is approximately a 5% range in initial costs between the options however there are other factors for the City of Lino Lakes to consider in the selection such as long-term location within the city, life-cycle maintenance and utility costs, operation of public works staff during construction, and best uses of city property.

### Site A Statistics



### Site B Statistics



# EXECUTIVE SUMMARY

## Option A1



### Option A1: Remodel & Building Expansion on Existing Public Works Site (Site A)

Remodeling and expansion of the existing public works building is the first option reviewed and provides the main advantages of reuse of the existing building structure. There is also the advantage of a somewhat larger overall site. However due to the extensive code, accessibility and safety issues, the building's interior would need to be mostly rebuilt to address these minimum requirements. There would also need to be exterior upgrades of the existing structure such as reroofing the building to replace the currently failing roof. For either option on Site A, the project also includes the requirement to bring municipal water and sanitary service to the site to provide mandatory fire suppression and treatment of vehicle floor drain sanitary flows. This option also impacts the public works department's operations, related to working around the remodeling and addition process. Based on the detailed preliminary cost estimates done by the cost consultant, this option's cost falls in the middle of the three options reviewed. However, when the increased maintenance costs of the remodeled portion of the building is factored in; this option is likely the costliest over the next decades.

## Option A2



### Option A2: New Facility on Existing Public Works Site (Site A)

The approach on this option is the demolition of the existing public works facility and construction of an all-new facility on Site A on Main Street. This option has several advantages including the flexibility to place the new facility on the site to maximize the use, providing a more compact building and better screening of the outdoor storage and salt building area. This option also allows the continued use of the newer, of the two existing cold storage garages for the next 10 to 20 years until its life-expectancy is reached and Phase 2 is completed. The other main benefit of a new facility is the elimination of the increased maintenance and replacement requirements inherent in remodeling the existing building under Option A1. Similar to the first option however, this option would require the extension of municipal water and sanitary service to the site to provide mandatory fire suppression and treatment of vehicle floor drain sanitary flows. Operations of the Public Works Department would also be significantly impacted between the demolition and new construction of the facility, although the construction timeline would be reduced by not working around ongoing operations. Finally, this option has the highest initial cost of all the options considered, but would be less than Option A1 over the next few decades when increased maintenance costs of the remodeled building is factored in.

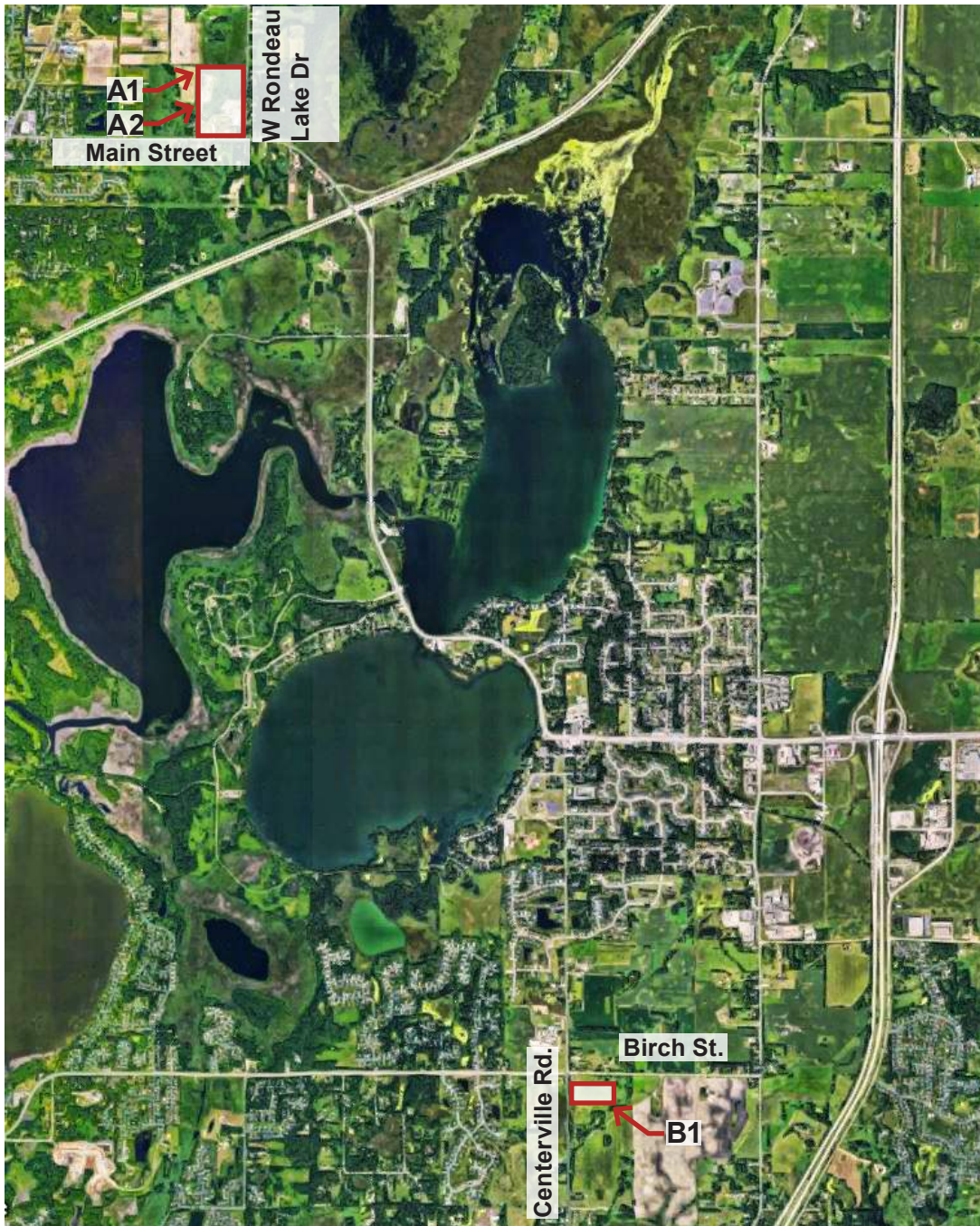
## Option B1



### Option B1: New Facility at Birch Street & Centerville Road adjacent to Fire Station #2 (Site B)

This option represents a new facility at the south Site B location where preparations for future city facilities were provided in the Fire Station #2 project. The advantages of this site include existing municipal utilities stubbed into the site, a location closer to the future population density projections, and the smallest most efficient building footprint of the three options. Other benefits of building on this site is the ability to not impact the operations of the Public Works Department during the construction process as they will be able to work from the existing facility until the new building opens. Also, by not building on Site A, there is not the loss of the one ballfield and hockey rink, maintaining more park and recreation usage within the city. Replacement costs for these recreational areas were not included in the study. Under this option, the existing salt storage building, material storage bins, as well as the existing cold storage buildings would remain on the north Site A location, at least through Phase 2 construction, providing the benefit of more available storage space in the short term. However, there will be a mixed impact of having public works elements on two sites. Option B1 has the lowest initial cost as well as the lowest life-cycle cost of the three options analyzed.

# PUBLIC WORKS FACILITY SITE OPTION MAP



- Option A1:** Existing Site: Expand to meet future needs
- Option A2:** Existing Site: New Facility
- Option B1:** Birch St. & Centerville Rd.: New Facility

## Public Works Facility Option Location Map

The map above shows the two sites that were identified by city staff for consideration as potential properties for the proposed Public Works Facility. Options A1 and A2 are located at the current Public Works Facility. Option B1 is located adjacent to Fire Station #2.



## Project Needs Assessment

CNH interviewed appropriate City Staff to understand both their current needs as well as future operational changes and anticipated growth areas. We compared these areas to similar nearby cities, providing not only relational size comparisons but interjecting potential issues that may not have been considered. To create accountability and clarity in our investigation, we made it a priority to gather initial information with rigor such that assumptions are minimal, collaborating closely with our engineers to pinpoint existing and potential issues that may or may not already be identified.

## Option Analysis

After gathering all the information on space needs, CNH evaluated the existing public works campus, and developed future needs based on expected growth; CNH reviewed three approaches for the City of Lino Lakes to meet their Public Works needs. These include:

Option A1 – Renovate the existing building and expand to meet future needs.

Option A2 – Build an all new facility at the existing site to provide long-term value.

Option B1 – Build an all new facility at the city property at Birch Street and Centerville Road leaving some appropriate elements at the existing site.

The study has reviewed each of the above options, analyzing and listing comparative data on each option in order to provide the City of Lino Lakes with the tools to make an informed decision on the future of the Public Works department facilities. Among others, the review of each option will include the following topics:

- Space needs – current and future
- Growth potential for each option
- Existing facility conditions
  - Deferred and short-term maintenance
  - Building code / OSHA compliance
- Accessibility compliance
- Capital costs for construction / remodeling proposed
- Site location relative to population and infrastructure



### Site A:

Site A consists of the existing site for the current Senior Citizen Center and Public Works Facility. The property's current zoning designation is for Public and Semi-Public District (PSP). It has a gross area of 27.46 acres of which 17.6 acres are suitable for building. The city owns the property of this existing facility. The site is surrounded by residential neighborhoods to the east and south, baseball fields to the west and agricultural land to the north.

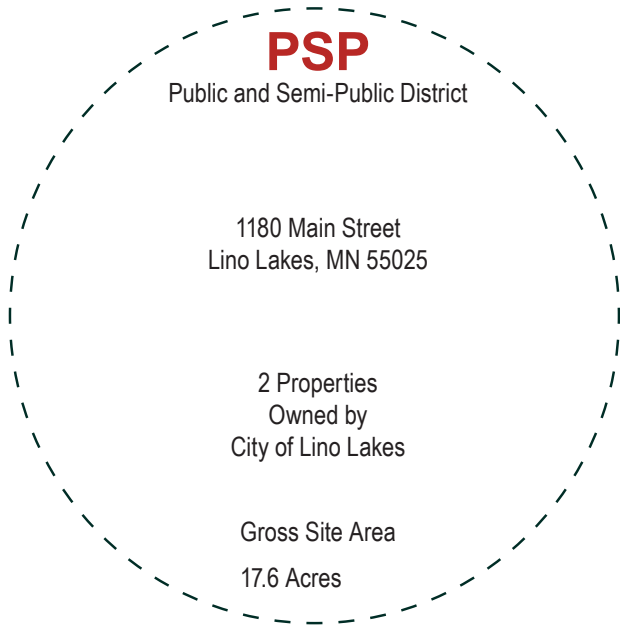
### Photograph:

View of the existing Vehicle Maintenance portion of the Public Works Facility



# SITE A





**Infrastructure**



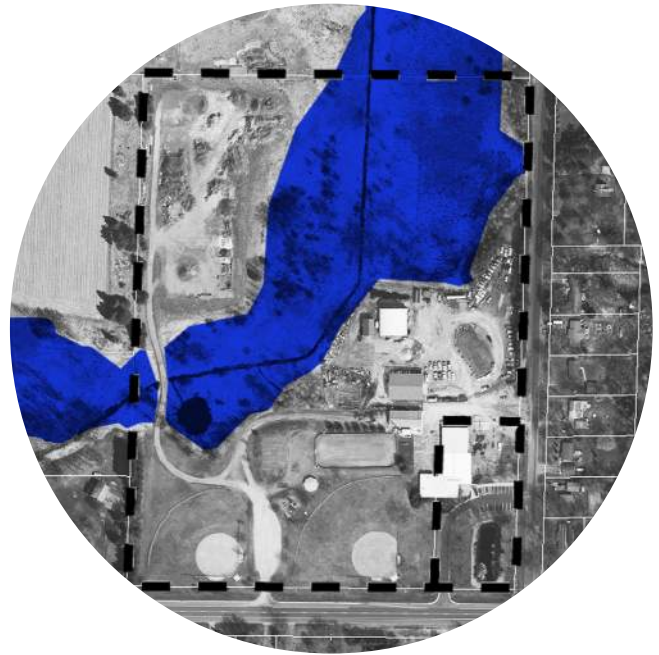
This city owned property is served by electricity and natural gas utilities, but does not have municipal sanitary or water service. The current facility uses well water and has a private mound-style septic system limiting the ability to install fire suppression and requiring storage tanks for future vehicle wash and floor drain sanitary flows. Extension of municipal sanitary is highly recommended. Municipal water and sanitary are located approximately 1 mile to the west.



**Wetlands**



There are designated wetlands running through the middle of the property which reduces the buildable area and mostly separating the northwest storage area from the main buildable area. The wetlands represent approximately 40% of the overall site.

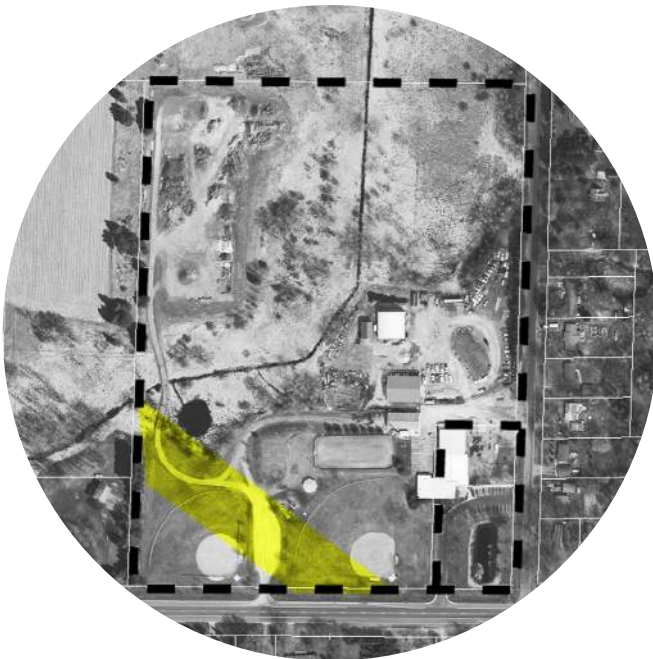
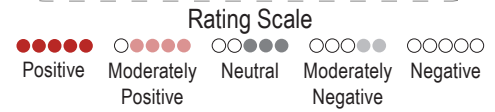
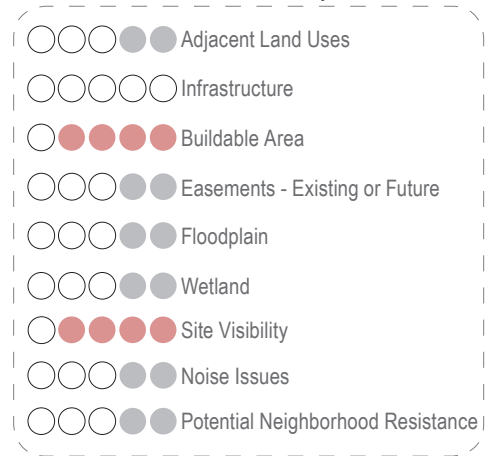


**Floodplain**



There is a large floodplain running through the middle of the property mostly duplicating the wetland areas.

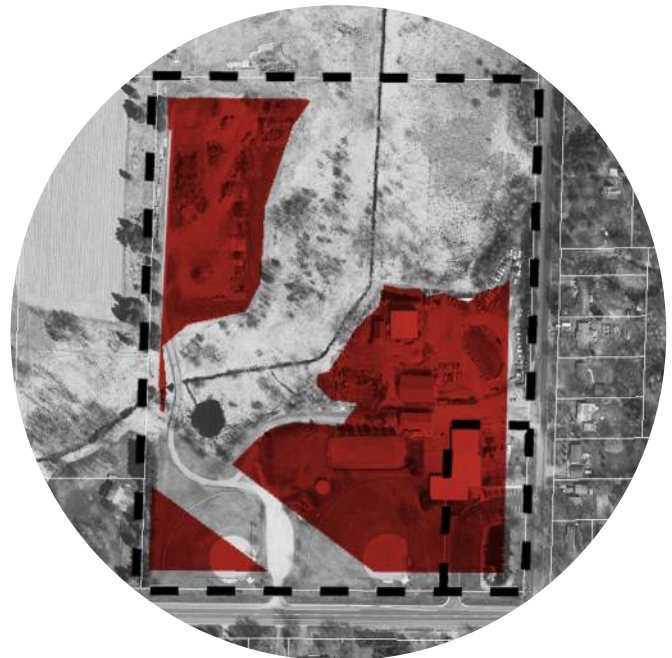
**Site Statistics**  
Public Works Analysis



**Easements**



There is one gas easement running on the southwest corner of the site. This easement defines the southwest edge of the main buildable area.



**Buildable Area**



This site is approximately 27.4 acres, of which 12 acres is buildable area. This buildable area is separated into three distinct blocks with only the southeast block of 7.7 acres large enough to be considered for this project.



**Site B:**

Site B is located on the southeast intersection of Birch Street and Centerville Road. The property's current zoning designation is for Public and Semi-Public District (PSP). It has a gross area of 17.6 acres of which 3 acres are suitable for building. It is adjacent to Fire Station #2 to the north and agricultural land on the east and west sides. To the south the property extends toward 46 acres of land owned by the City. There is one private residence on agricultural land to the southwest.

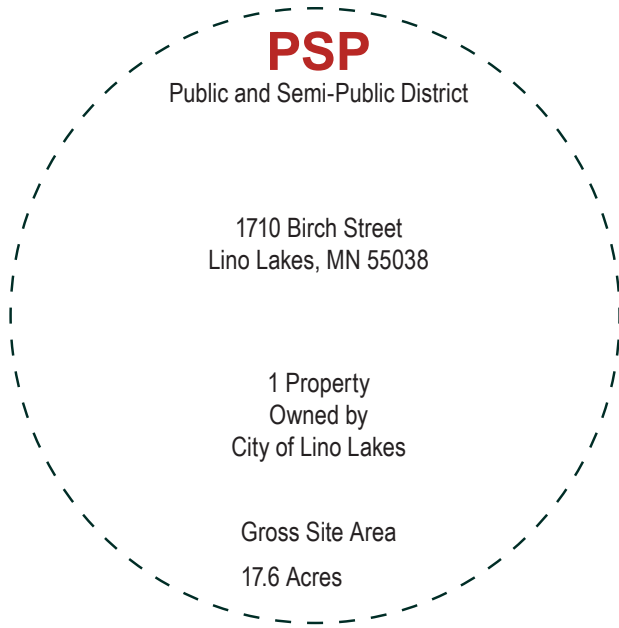
**Photograph:**

View of the site from the east



# SITE B





**Infrastructure**



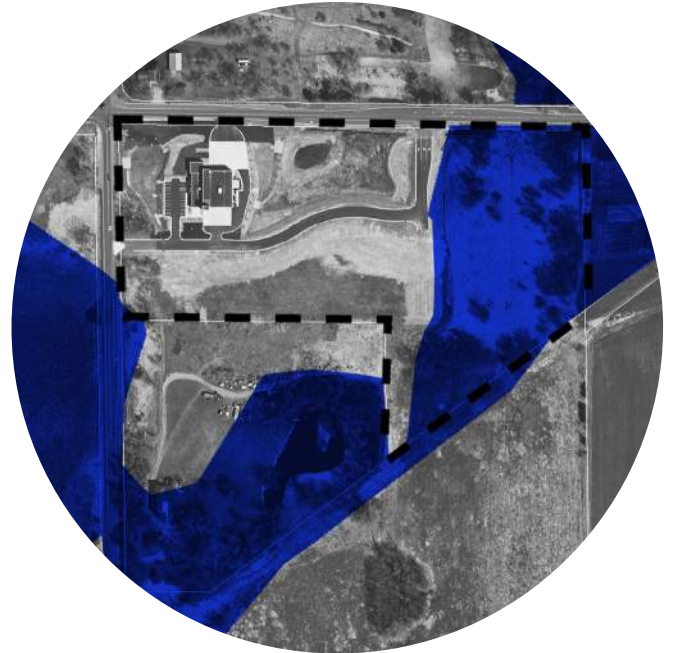
This city owned property is served by all public utilities including electrical, natural gas, municipal water, and municipal sanitary services. The water and sanitary pipes were stubbed into the site as part of the recent Fire Station #2 project. The site is also served by the new city street with completed connections to both Centerville Road (County 21) and Birch Street (County 34).



**Wetlands**



The designated wetlands run along the North, East and West sections of the property and decreases the buildable area within this parcel.



**Floodplain**

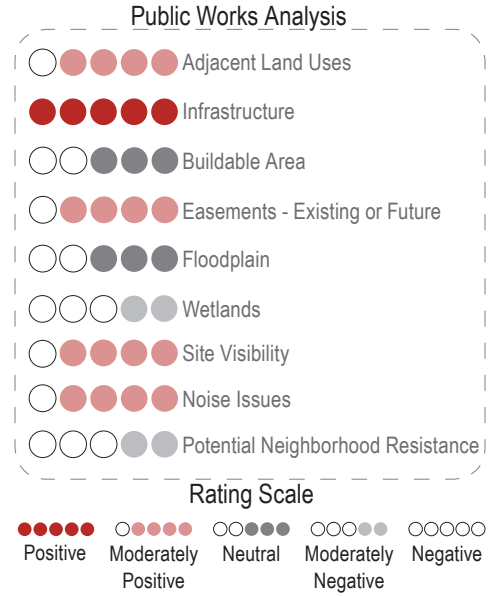


The floodplain runs through the East part of the property, but since the construction of the fire station the FEMA map should be updated to reflect the correct contours of the site. The diagram above represents the approximate corrected floodplain zone. It is our understanding that the floodplain update is in process.



# Site Analysis

## Site Statistics



### Easements



There are no easements on the south buildable area being considered for this project other than standard drainage and utility setbacks along the property lines and roads.



### Buildable Area



This site is approximately 17.6 acres not including the over 46 acres to the south. After deducting the fire stations' built area, there is 3 acres of remaining buildable area for this potential project.

# SPACE NEEDS PROGRAM

# ARCHITECTURAL CONSIDERATIONS - SPACE NEEDS PROGRAM

## Overview

The current Lino Lakes Public Works Facility was built in 1971. While the facility has functioned in the past 45 years, the City Council and staff determined that a space needs program be developed to assess the existing, current and future needs. The Space Needs Program captures the conclusions made from the assessment exercise over the last months to express the scale and scope of modifications needed to the facility for both short and long term operational demands.

A comparison matrix at the end of this section reflects other Public Works facilities as they relate to the scale of this project. Public works facilities in the Twin Cities metro of Hugo, Shoreview, Otsego, and Hopkins were used as references. While each city's needs and approaches are different, the comparisons can provide additional insight when considering the best fit for the City of Lino Lakes.

## Space Needs Analysis Approach

The space needs reviewed are based on the following assumptions to address the long-term needs of the Public Works Department for the City of Lino Lakes. While other approaches may be pursued, the assumptions indicated in this study represent the facility designs commonly taken by other similar municipalities within the greater region.

A. Departments Included within the Facility: This space needs program for the overall Public Works Department includes the streets, utilities, vehicle maintenance and park & recreation operations. This combination of operations creates efficiencies in operations and facilities as many functions overlap and require similar facilities.

B. Protection of Equipment: This space needs program provides space for all vehicles and equipment to be stored within the protection of the proposed building. This would include fully heated operational areas as well as partially heated storage areas, depending on the needs of the individual spaces. Much of the current equipment and many vehicles are currently stored outside within the current Public Works site significantly reducing its life-expectancy and increasing maintenance requirements. The space needs program assumes that all equipment and vehicles would be stored within the facility providing reduced life-cycle costs for the equipment and vehicles within the public works department.

C. Growth Projections: The space needs program allows room for the anticipated growth needs within the following 20 years at a minimum as is typical for a public facility built to operate for a period approaching 50 years. The City of Lino Lakes is projected by the Metropolitan Council's study to expand in population to 31,100 by 2040, or a growth of 49% from current. The growth built into the space needs program represents only the added staff and equipment that was determined to be needed with the increase in population and associated streets, parks, and utilities. Consequently the building space needs growth is only 14% above the current needs, significantly less than projected population growth.

# SPACE NEEDS PROGRAM

## Office Area

Space Name	Quantity	Size	Area	Total
Public Works Superintendent	1	12'x14'	168	168
Open Office Area	1	15'x20'	300	300
Reception	1	16'x10'	160	160
Private Offices	9	12'x10'	120	1,080
Shop Supervisor Office	1	12'x10'	120	120
Copy Room	1	9'x10'	90	90
IT/Server Room	1	9'x10'	90	90
Multi-Purpose Room	1	40'x45'	1,800	1,800
Lunch Room	1	30'x40'	1,200	1,200
Men's Restroom & Locker Room	1	30'x40'	1,200	1,200
Women's Restroom & Locker Room	1	15'x25'	375	375
Storage	1	10'x25'	250	250
Janitor's Closet	1	10'x12'	120	120
Mechanical/Electrical Room	1	20'x30'	600	600
Public Restrooms	2	9'x10'	90	180
Subtotals				7,773
Circulation	15%			1,160
<b>Total</b>				<b>8,893</b>

## Vehicle Storage

Space Name	Quantity	Size	Area	Total
Large Spaces (Angled 60°)	16	18'x36'	835	13,360
Medium Spaces	49	12'x24'	288	14,112
Small Spaces	20	8'x12'	96	1,920
Mezzanine Storage	1	30'x40'	1,200	1,200
General Storage	1	20'x100'	2,000	2,000
Vehicle Wash Bay	1	35'x50'	1,750	1,750
Circulation	1	30'x6600'	19,789	19,789
<b>Total</b>				<b>54,131</b>

# SPACE NEEDS PROGRAM

## Vehicle Maintenance

Space Name	Quantity	Size	Area	Total
Large Maintenance Bay	2	24'x48'	1,152	2,304
Small Maintenance Bay	2	20'x40'	800	1,600
Welding Bay / Fabrication	1	28'x40'	1,120	1,120
Small Engine Repair Bay	1	20'x40'	800	800
Tire & Brake Shop	1	20'x28'	560	560
Tire Storage ( Mezzanine)	1	30'x10'	300	300
Lube Room	1	12'x16'	192	192
Parts Storage & Tools Room	1	20'x50'	1,000	1,000
Subtotals				7,876
Circulation	15%			1,181
<b>Total</b>				<b>9,057</b>

## Departmental Shops

Space Name	Quantity	Size	Area	Total
Sign Storage	1	30'x40'	1,200	1,200
Woodworking Shop	1	20'x30'	600	600
Parks Storage	1	30'x40'	1,200	1,200
Water Meter Shop / Storage	1	15'x30'	450	450
Subtotals				3,450
Circulation	15%			518
<b>Total</b>				<b>3,968</b>

## Total Area

Subtotals			76,049
Exterior Wall and Building Services	10%		7,605
<b>Total</b>			<b>83,654</b>

## Summary

As this Space Needs Program indicates, the Public Works Department will need a total building area approaching approximately 84,000 square feet by the end of the study target of 2040. While the population of the City of Lino Lakes is projected to grow 50% by 2040, the projected total Space Needs Program is only 15% more than the current space needs because of operational efficiencies of a larger city. Due to this future growth and also the potential use of some existing cold storage space over the next 10 to 15 years, the Space Needs Program can be met in a two phase approach with Phase 2 encompassing approximately 25,000 square feet of future Vehicle Storage needs.

# COMPARISON MATRIX

## Comparative Square Footage Calculation

The Comparison matrix reflects size of areas in comparative Public Works Facilities. The following formula was used to create comparison factors.

$$\text{Formula for Comparison:}$$
$$\frac{\text{Square feet}}{\text{Population}} = \text{Comparison Factor}$$

The comparative factors are not a definitive means for determining the appropriate size and scale of Lino Lakes' expansion needs, particularly considering many other factors can influence how and why departmental allocations are established. However, this information can be helpful in guiding the space needs program with a larger perspective that acknowledges the external factor of city population and growth and how that impacts the operational capacity of the Public Works facility.

From the chart below, we can see that Hopkins' has a somewhat smaller population. Hopkins' total square footage for their Vehicle Storage space (shown to the right) is 37,800 square feet which is 85.5% larger than Lino Lakes' actual area of 5,512 square feet. Lino Lakes has a much smaller Vehicle Storage area. It is not surprising that Lino Lakes' Public Works facility is smaller than comparison facilities given Lino Lakes' growth in population and service needs since the current facility was built approximately 45 years ago.

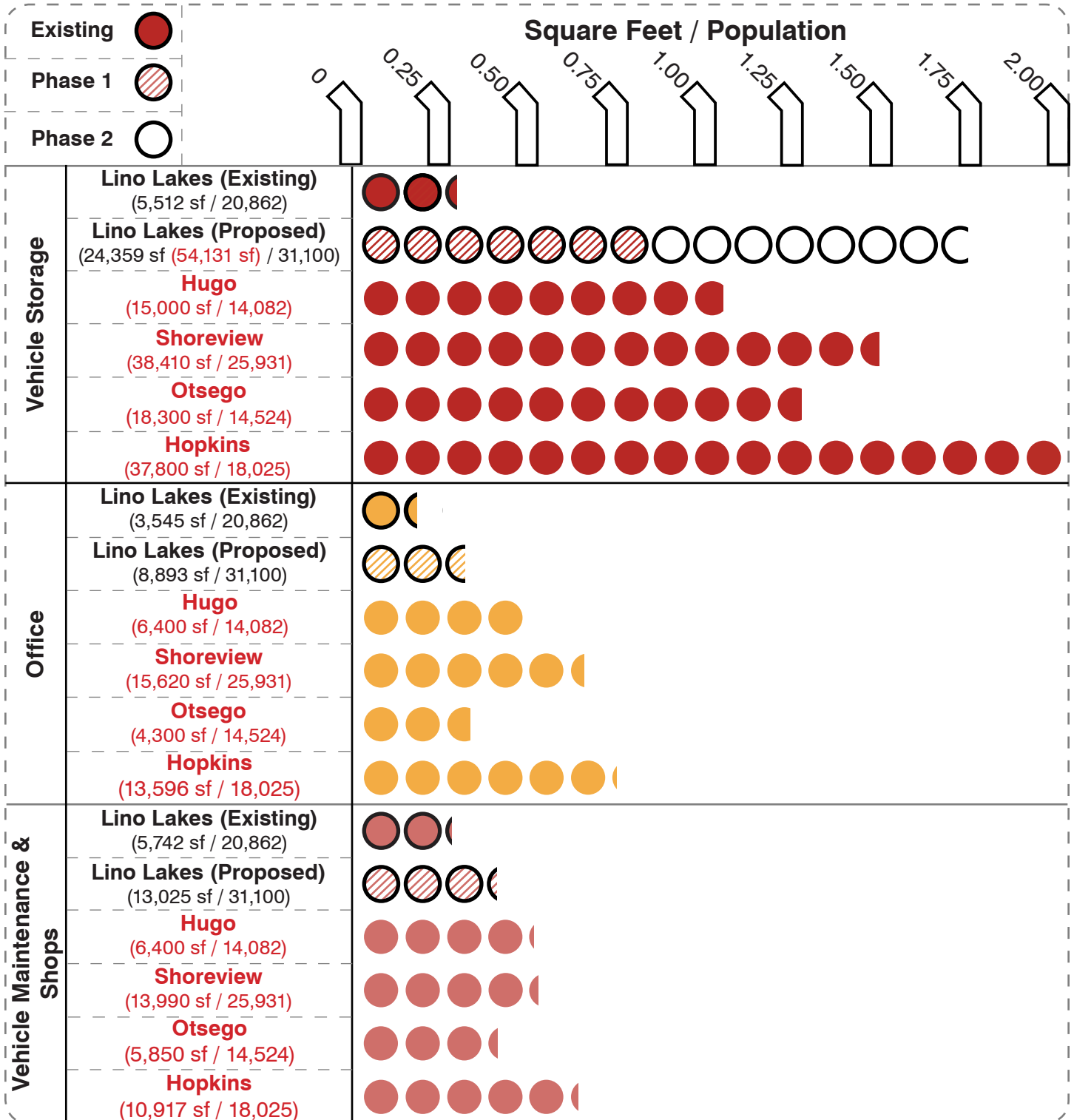
## City Population (2013 Census)

Lino Lakes	Hugo	Shoreview	Otsego	Hopkins
20,862	14,082	25,931	14,524	18,025

## Projected Population (2040)

Lino Lakes
31,100

# COMPARISON MATRIX



## Description

Option A1 is located at the current Public Works and Senior Center Facility site. This option includes extensive remodeling of the existing Public Works and Senior Center Facility into Public Works' office space and vehicle maintenance area. The expansion includes additional office, additional vehicle maintenance, departmental shops and vehicle storage. The existing salt building and material storage bins will be reused. Due to the limitations of the buildable area and the location of the existing cell tower, a portion of the vehicle storage is rotated at a 120 degree angle.

This option would involve a total gutting of the existing building as needed to address deficiencies in the current building related to accessibility, energy code, fire suppression and mechanical systems. Option A1 and the following option by using the existing public works site will also require an extension of the municipal water service and municipal sanitary service to the site.

Due to the site layout limitations working around the existing office and maintenance building, the existing cold storage buildings will not be able to remain. This will reduce the total available storage for the Public Works department until Phase 2 is built, and may also result in the need to build Phase 2 sooner than the other option in order to meet the city's growth.

### Pros

- Re-use of existing Public Works building structure
- Use of existing Salt Building
- Use of existing Material Storage Bins
- Use of existing miscellaneous site storage
- Re-use of existing site
- Large buildable area

### Cons

- Potential long construction period of existing building disrupting operations
- Cost of bringing new Water main to site due to fire suppression requirements
- Loss of use of existing ice rink and cost to remove
- Loss of use of existing baseball field and cost to remove
- Cost of remodel based on code and handicapped accessibility deficiencies
- Non-efficient floor plan of vehicle storage to fit site and keep existing building
- Cost of bringing municipal sanitary sewer to site (or impacts of large storage tank and regular pumping for floor drains and wash bay sanitary)
- Reduced facility life expectancy and increased maintenance for the remodeled portion of the building compared to an all new facility

### Total Square Footage

• Remodel	12,752 s.f.
• New	67,582 s.f.
• Total	80,334 s.f.





**Description**

Option A2 is located at the current Public Works and Senior Center Facility site. This option provides for an all-new Public Works Facility which includes office, vehicle maintenance, departmental shops and vehicle storage. The existing salt building, cold storage garage and material storage bins will be reused.

Since this option removes the existing 45 year old building, it provides the flexibility to place the building on the site in a more advantageous layout. This results in a more compact building footprint, better screening of the building to the east neighborhood, and the option for drive-through parking for large equipment within the storage garage. This site option also allows for the continued use of the newer of the two existing cold storage garages which will provide more available space for the Public Works department, especially until Phase 2 is added. Option A2, using the existing public works site, requires an extension of the municipal water service and municipal sanitary service to the site.

**Pros**

- Use of existing salt building
- Use of existing material storage Bins
- Use of existing miscellaneous site storage
- Use of existing cold storage garage
- Longer life-expectancy and reduced maintenance for an all new facility
- Large buildable area
- Drive through stalls for large vehicle storage parking
- Flexibility in building placement to best fit uses and site

**Cons**

- Cost of demolishing existing facility
- Disruption of operations during construction period
- Cost of bringing new water main to site for fire suppression requirements
- Loss of use of existing ice rink and cost to remove
- Loss of use of existing baseball field and cost to remove
- Cost of bringing municipal sanitary sewer to site (or impacts of large storage tank and regular pumping for floor drains and wash bay sanitary)

**Total Square Footage**

• Remodel	None
• New	79,503 s.f.
• Total	79,503 s.f.
• Existing Cold Storage	4,835 s.f.



## Description

Option B1 is located adjacent to Fire Station #2. This option includes a new Public Works Facility which includes office, vehicle maintenance, departmental shops and vehicle storage. The existing salt building and material storage bins will be reused at the existing Public Works site.

This option would allow for the use of the existing public works storage buildings throughout the construction period reducing operational disruption and cost during construction. Option B1 would also allow for the continued use of the north site facilities after construction until they reach their anticipated life-expectancy allowing for more flexibility and space for the Public Works department, especially until Phase 2 is added to the building.

### Pros

- Existing municipal sanitary sewer connection located on site
- Existing municipal water main connection located on site
- Use of existing ice rink on Site A
- Use of existing baseball fields on Site A
- Efficient floor plan of vehicle storage
- No disruption at the current Public Works facility during construction
- Located adjacent to Fire Station #2
- Closer to future population density as Lino Lakes grows
- Existing storage buildings at north site can continue to be used

### Cons

- Smaller buildable area creates minimal clearances for site functions
- Existing salt building is located on Site A
- Existing material storage bins are located on Site A
- High visibility from future road

### Total Square Footage

• Remodel	None
• New	76,017 s.f.
• Total	76,017 s.f.
• Ex. Public Works Storage	14,799 s.f.



# ARCHITECTURAL REVIEW

## Introduction

The current Lino Lakes Public Works Facility was built in 1971 and does not have access to municipal water or municipal sanitary sewer. Due to fire code requirements that limit the square footage of the facility the existing Public Works building cannot be expanded unless municipal water is brought to the site. The additions to this facility include 4 separate buildings. The majority of the vehicles are stored outdoors, which inherently reduces their life span. Equipment is currently stored in 3 buildings and is not conducive to an efficient work flow. The building has water damage and leaking in several locations.



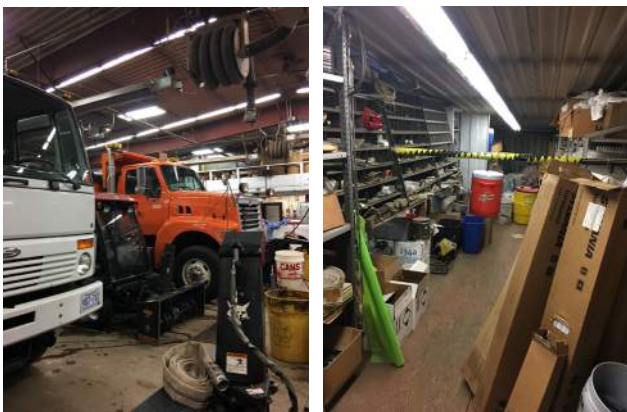
## Equipment Storage

Public Works is currently storing most of their equipment outside where they are covered in snow and have a greater chance of being rusted, therefore reducing their life span.



## Vehicle Storage

Public Works is currently storing vehicles outside, where they are covered in snow and have a greater chance of being rusted, therefore reducing their life span.



## Vehicle Maintenance

The current Vehicle Maintenance area and tool storage area does not provide adequate space to service the city's fleet of vehicles.

# ARCHITECTURAL REVIEW

## Exterior Brick

Exterior brick on the building has severe water damage in multiple places and is in need of repair.



## Roof leakage

The existing standing seam roof needs to be replaced as there are multiple locations where leaking has occurred.



## Gutters

There are several locations around the building where gutters are failing or not in place, snow is melting off of the roof and causing water damage and icy conditions, which are hazardous for the public and employees.

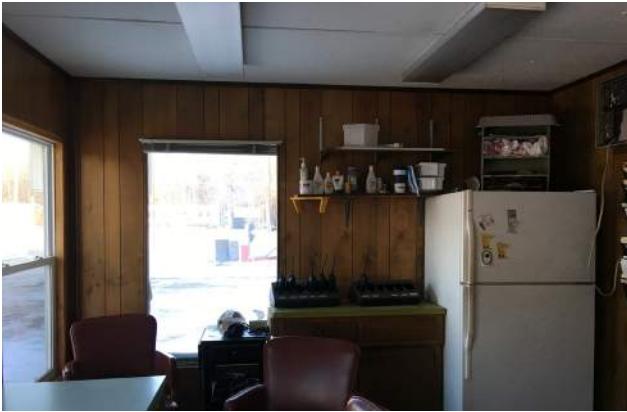


## Offices and Storage

Current offices and storage areas are intermingled and do not provide an efficient use of space.



# ARCHITECTURAL REVIEW



## Break Room/Office

One of the additional buildings on-site houses one office and a break room due to limited space in the main facility.



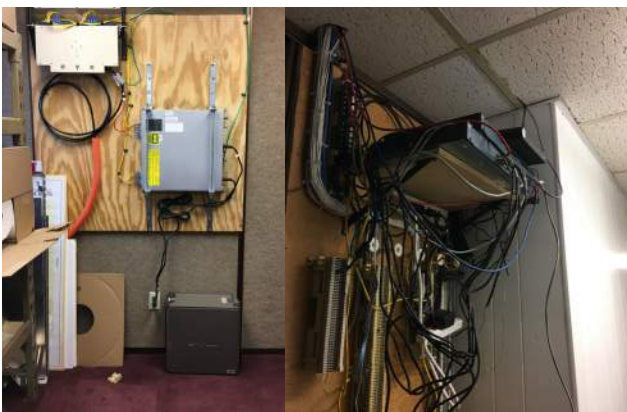
## Locker room

The current locker room does not have adequate lockers to accommodate employees and is used as a circulation space which doesn't have privacy for employees.



## Lunch Room

The current lunch room does not have adequate appliances and chairs to accommodate Public Works employees.



## Server / Telephone Storage

The current server is located in the main hallway, isn't easily accessible and is an eyesore. The data and telephone phone board is currently in the storage room.



# ACCESSIBILITY & CODE REVIEW

## Introduction

The current Public Works facility was built in 1971 and has major deficiencies related to accessibility, energy code, fire suppression and mechanical systems. Our accessibility review identifies conditions in the existing building that require immediate attention including; restroom clearances (water closet, lavatory and shower), non-accessible door hardware, accessible door clearances and accessible counter heights.

The existing building does not meeting current energy code requirements, fire suppression requirements, exiting requirements and mechanical system requirements as discussed on the following page. We did not complete a full OSHA safety assessment as a part of this study, but there are several items in the building that should be assessed further, including proper headroom clearances under the Vehicle Maintenance mezzanine.

As a result of the extent and variety of code, accessibility, and safety deficiencies in the current building, it is our opinion that the most economical approach if remodeling is considered would be to remove all existing interior rooms and reconstruct the interior build-out of the vast majority of the existing space. This also results in the best design fit with the long-term needs of the Public Works department.



The existing Women's Restroom does not have proper clearances for accessibility, with any amount of remodeling the restrooms would need to comply with the latest Minnesota State accessibility code.



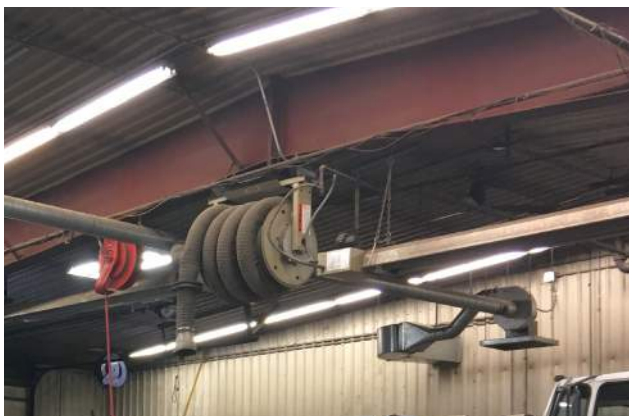
The existing Men's Restroom does not have proper clearances for accessibility, with any amount of remodeling the restrooms would need to comply with the latest Minnesota State accessibility code.

# MECHANICAL SYSTEMS REVIEW - VEHICLE MAINTENANCE



## Ventilation System

Current ventilation system is inadequate. Current codes require .75 cfm per square foot of ventilation interlocked with an outdoor air intake. The current system operates manually with independent control switch for both the fan and intake damper. The exhaust fans appear dated and most likely have exceeded their expected service life.



## Exhaust System

Vehicle Maintenance requires carbon monoxide sensors (gasoline engine fumes) and nitrogen dioxide sensors (diesel engine fumes) to enable the exhaust system in the event that the concentrations exceeds code minimum set point. These sensors are not installed.



## Heating

General heating is accomplished with gas fired infrared heaters. These units are dated and most likely have exceeded their expected service life.



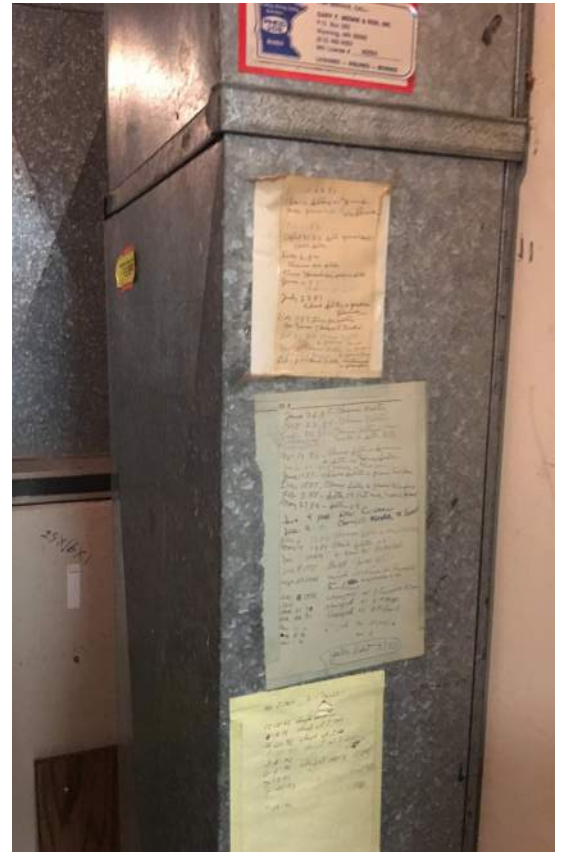
## Sanitary Waste

The sanitary waste from the trench drains and floor drains are routed directly to the septic system. This is a code violation. For buildings served with a septic system, the flammable waste from trench drains must be routed to a storage tank separate from the septic system. Tanks are emptied periodically and trucked to a proper waste facility.

# MECHANICAL SYSTEMS REVIEW - OFFICES/SENIOR CENTER

## Furnace Room - Offices

The office space is served by three furnaces and associated split system air conditioning units. The units were installed in 2010 and are in good condition. The ductwork connected to these units would need to be replaced based upon the condition of the current ductwork and the change in zoning due to renovation schemes. In addition, current requirements for ventilation air will require an air-to-air energy recovery unit to temper the outdoor air before it is introduced into the furnaces.



## Furnace Room - Senior Center

The community space is also served by three furnaces and associated split system air handlers. They were installed in 2010 as well and are in good condition. The comments for item 1 above applies to these systems as well.

- One of the units has a capacity of 5 tons. The Mn Energy Code requires a system of this capacity to be equipped with an economizer. The economizer introduces outdoor air into the space when outdoor air temperatures are favorable and cooling is required by utilizing outdoor air for cooling as opposed to operating compressors.



# COST ESTIMATE

# COST ESTIMATE

## Option A1

### Remodel & Expansion Phase 1

Low Cost		High Cost	
Public Works Facility	\$ 9,707,342	Public Works Facility	\$ 12,195,113
Sanitary Sewer and Water	\$ 360,000	Sanitary Sewer and Water	\$ 360,000
<b>Total</b> (2017 Dollars)	<b>\$ 10,067,342</b>	<b>Total</b> (2017 Dollars)	<b>\$ 12,555,113</b>

\*Inflation not taken into account in this estimate

## Option A2

### New Facility at Existing Site Phase 1

Low Cost		High Cost	
Public Works Facility	\$ 10,040,359	Public Works Facility	\$ 12,458,171
Sanitary Sewer and Water	\$ 360,000	Sanitary Sewer and Water	\$ 360,000
<b>Total</b> (2017 Dollars)	<b>\$ 10,400,359</b>	<b>Total</b> (2017 Dollars)	<b>12,818,171</b>

\*Inflation not taken into account in this estimate

## Option B1

### New Facility at Fire Station Site Phase 1

Low Cost		High Cost	
Public Works Facility	\$ 9,922,715	Public Works Facility	\$ 12,380,093
<b>Total</b> (2017 Dollars)	<b>\$ 9,922,715</b>	<b>Total</b> (2017 Dollars)	<b>\$ 12,380,093</b>

\*Inflation not taken into account in this estimate

## Cost Estimate Summary

The cost estimates shown above represent our teams professional opinion of probable construction cost based on the uses proposed, and typical construction costs for similar facilities within the greater metropolitan area. The low cost to high cost range represents the preliminary level of the designs done within this study, as well as the range in quality, life-cycle, and aesthetic choices that would be reviewed and selected by the city during the design process. The costs, as indicated are current construction costs and an inflation factor would need to be applied when a specific time line is developed.

The prices shown represent the estimated hard costs of the site and building construction shown in each option layout and vary only about \$500,000 when comparing the Low Cost for each option or 5% of the total cost. However, there are other cost factors not indicated that should also be taken into consideration when comparing options that would create a greater final cost differential between options. A partial list of these items include:

- Operational cost to move Public Works functions off-site during construction for Site A options
- Loss of use of ball field and hockey rink at Site A if expansion occurs there
- Additional maintenance costs for reused portions of the existing structure under Option A1, compared to an all-new facility in the other options
- Ability to continue to use one existing cold storage building under Option A2 and two existing cold storage buildings under Option B1, thus postponing the date when Phase 2 of the Public Works storage shown in each option layout would be needed