

City Facilities and Infrastructure

As part of the existing conditions analysis for the Comprehensive Plan, CR-Building Performance Specialists, Inc. worked with the City of Silver Bay to develop a comprehensive Facility Conditions Assessment (FCA) of all the City's building assets, excluding site amenities and process equipment.

Methodology

CR-BPS completed a visual inspection of the major systems of each building, including roofing, exterior walls, windows, doors and mechanical and electrical systems. Existing conditions and deficiencies were identified and documented with digital photographs, no destructive testing was performed. City staff provided CR-BPS with information of known conditions, i.e. active roof leaks, inadequate ventilation, leaky windows, prior to the site visits. The information gathered provided a comprehensive overview of the condition of each building, identifying visible deficiencies. However, the process did not include a detailed assessment of each and every part of the buildings systems this was a systems level assessment. This process used the ASTM National Institute of Standards' UNIFORMATE II Elemental Classifications System and RS Means cost data to define and assess the conditions of all buildings.

A facility condition assessment software tool was used to store and provide interactive and dynamic reports to analyze the overall portfolio of buildings or individual conditions of each building. This tool can be dynamically and statically updated when needed to produce current funding needs or conditions reports for these buildings.

Facilities and Building Asset List

The buildings shown in the following table were assessed for condition, use, and needed investment. The table identifies the type of asset, the age of the building, the type of use for the building, and size in square feet. The final two columns show the replacement value for the building by use type and the cost per square foot (from RS Means cost estimating data). The total replacement value for all of Silver Bay's buildings is approximately \$29 million. Of that, the Mary MacDonald Center is almost 50%, with a replacement value of almost \$13.7 million.

Other significant facilities with high replacement values (over \$1 million) include the Reunion Hall, the Golf Course Club House, the Liquor Store, the Public Works Garage, and the Water Treatment main building.



City of Silver Bay Comprehensive Plan

Building Data Summary

City of Silver Bay Buildings Summary

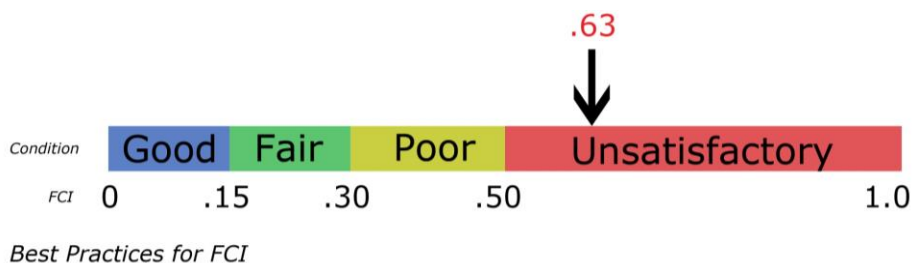
Reporting Date: June 20, 2015

Asset Name Number	Age	Year Built	Use	Size	Replacement Value	Cost/Unit
Asset Type: Building						
-City Hall & Police Station	46	1969	Multipurpose Use	6,192	1,360,803	220
-Airport Hangar Building	20	1995	Storage -Vehicles	7,200	486,692	68
-New Airport Hanger	7	2008	Other special facility	816	167,845	204
-Old Airport Building Original	55	1960	Multipurpose Use	1,152	186,726	162
-Airport Smaller Metal Building	20	1995	Hangar	6,696	372,000	56
-Fire Hall	46	1969	Fire Station	4,588	585,956	128
-Golf Course Club House	58	1957	Recreation	6,080	1,019,906	168
-Golf Course Cart Storage	58	1957	Storage -Vehicles	2,000	123,636	62
-Golf Course Greenhouse Building	58	1957	Storage -General	1,260	88,789	70
-Golf Course Maintenance Building	22	1993	Maintenance Shop	2,432	199,840	82
-Library	48	1967	Other special facility	4,160	588,773	142
-Liquor Store	38	1977	Retail	9,623	2,524,002	262
-Mary MacDonald Center	55	1960	Multipurpose Use	59,072	13,709,146	232
-Public Works Garage	37	1978	Maintenance Shop	12,135	1,946,560	160
-Recreation Center	65	1950	Recreation	2,220	288,662	130
-Reunion Hall	40	1975	Multipurpose Use	15,872	1,542,840	97
-Senior Workshop	65	1950	Maintenance Shop	2,130	317,225	149
-Tourist Info Center	50	1965	Retail	1,258	192,985	153
-Water Treatment -Metal Storage Bldg	33	1982	Storage -Vehicles	3,680	284,437	77
-Water Treatment Lift Station	63	1952	Utility Plant	600	94,843	158
-Water Treatment Main Bldg	63	1952	Utility Plant	10,940	2,112,286	193
-Water Treatment Tool House	63	1952	Maintenance Shop	1,092	112,114	103
-Waste Water Treatment Control Bldg	61	1954	Utility Plant	3,276	793,064	242
Total for Buildings				164,474	29,099,131	171

Summary Results for Facility Condition Assessments:

The methodology used to assess the facility/building condition allows the project team to establish a Facility Conditions Index (FCI). The FCI is an industry-standard metric that objectively measures the current condition of a facility. The FCI is used in facilities management to provide a benchmark to compare the relative condition of a group of facilities. The FCI is the cost to modernize the facility divided by the cost to replace a building of similar size and system type.

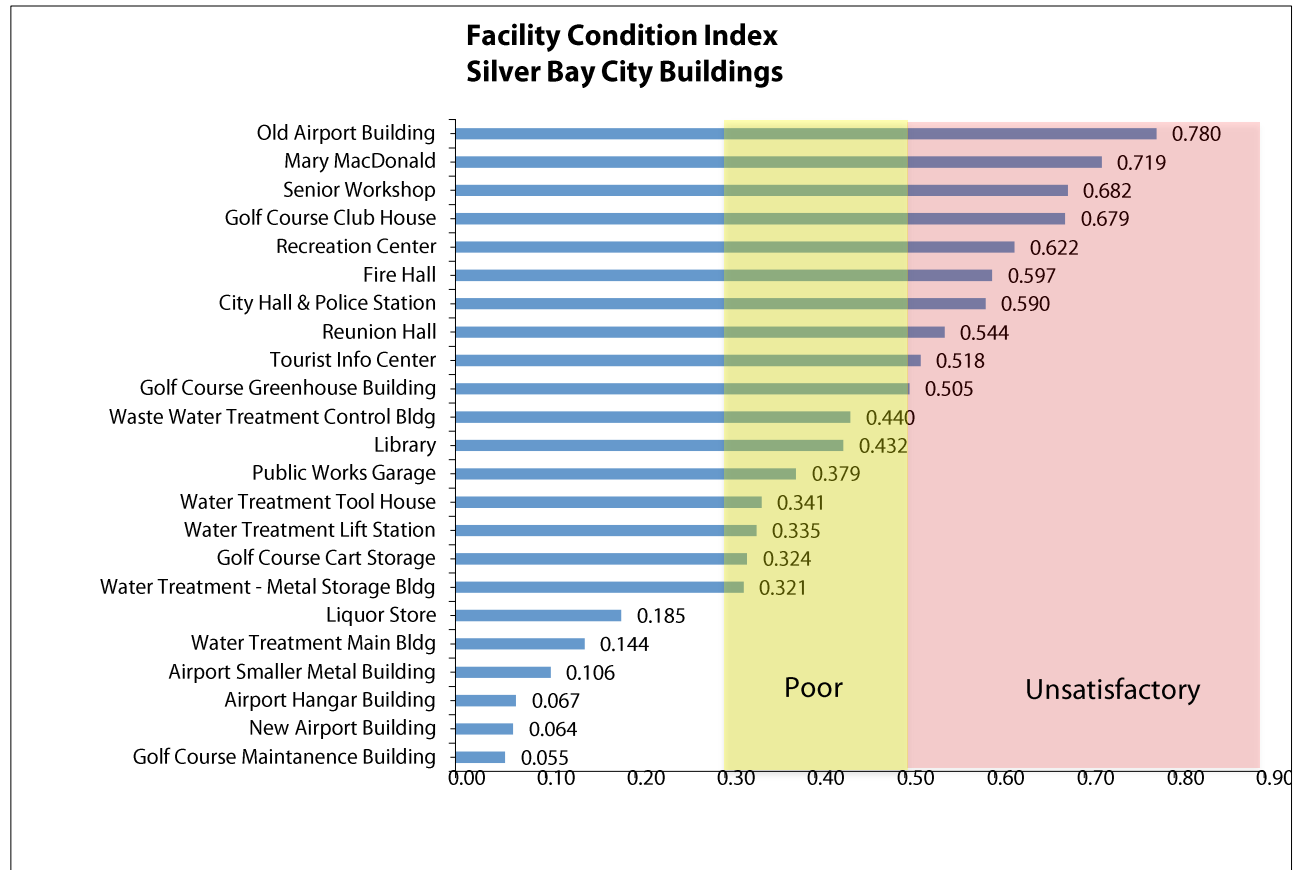
A building with a .5 FCI will require 50% of the replacement value of the building to bring it up to a like new condition. Following is guide to help understand the level of condition for a respective FCI ratio for Silver Bay buildings:



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The Facility Condition Index for each building or facility is shown below. Most of Silver Bay's facilities have poor or unsatisfactory FCIs, many of which have systems that have exceeded their useful life. Some of the facilities that have substantial investment needs are critical facilities for providing services to residents and businesses, such as the City Hall and Police Station. Other buildings are less important to City operations, such as the old Airport Building and the Golf Course Club House.

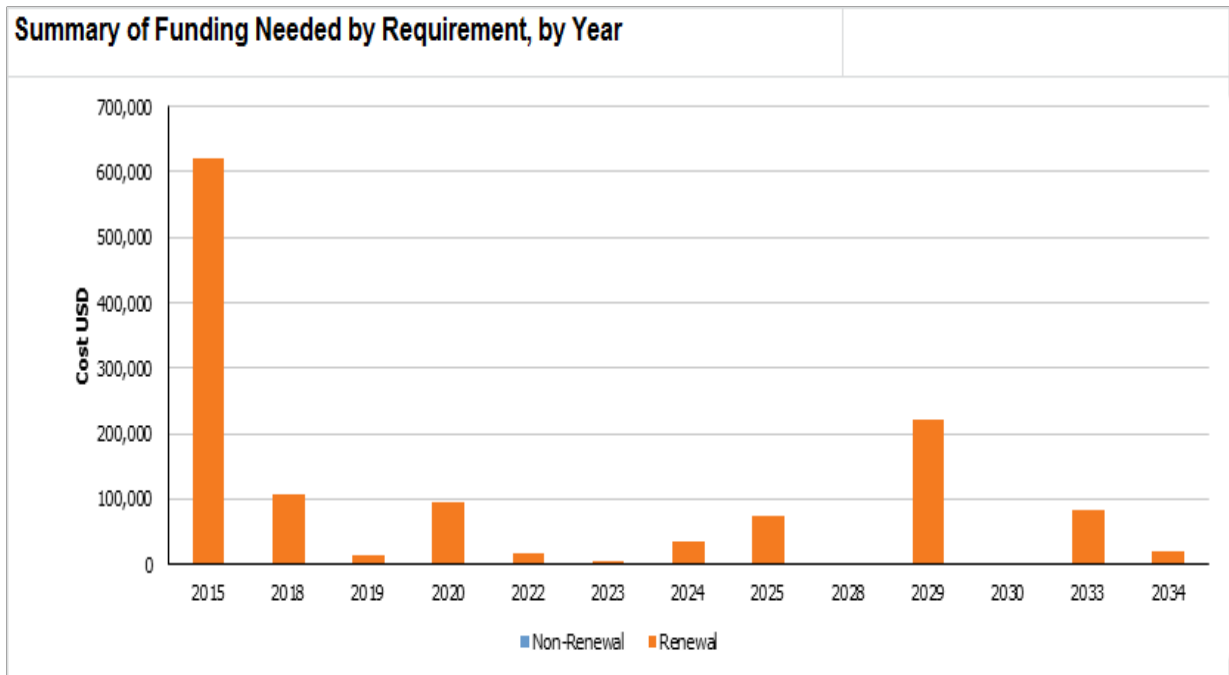
The FCI analysis shows that many of Silver Bay's facilities are operating on borrowed time. The City can expect diminished performance, high levels of emergency maintenance, and higher operating costs than from facilities that have more updated systems.



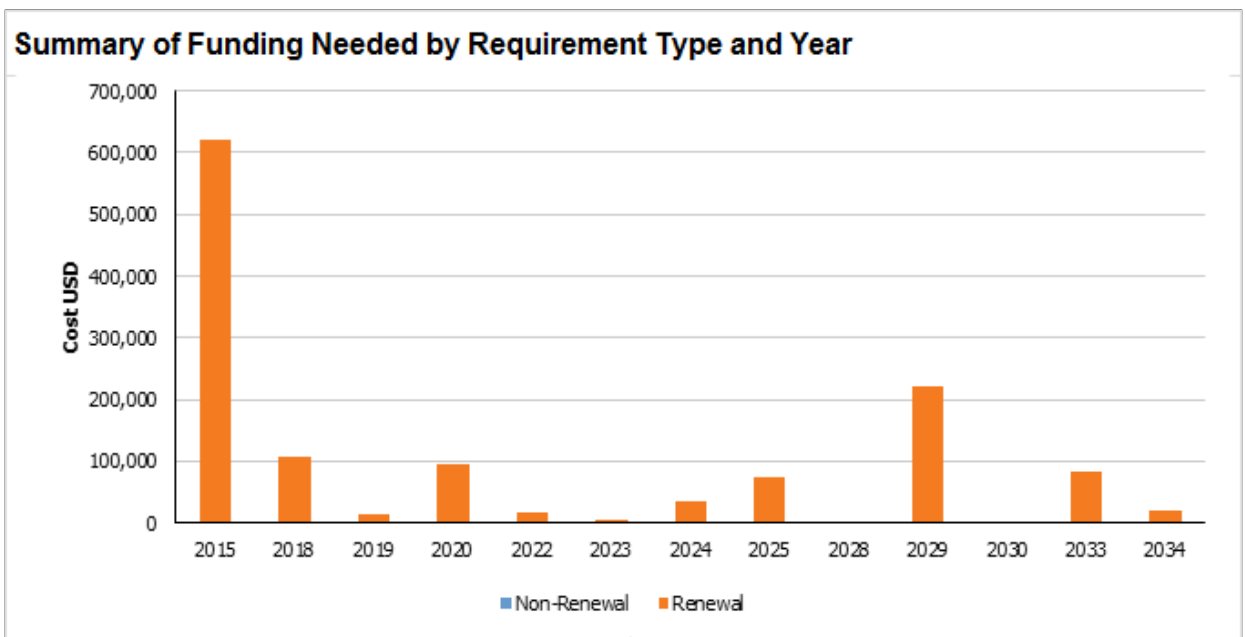
The FCI analysis does provide a great level of detail that describes which systems in which buildings are most problematic or at risk. An example is shown below for the City Hall/Police Station, where the annual "renewal" cost is shown by year. The renewal cost is the cost of replacing systems that have reached, or are nearing, the end of their expected life. The first year renewal cost is extremely high, because a number of building systems or components have not been renewed since 1969 when the building was built. The total costs for this building over twenty years is almost \$1.3 million, or an average of \$65,000 per year.

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The first year items that have been identified as needing to be renewed or replaced at the City Hall, and the estimated cost of renewal based on standard estimating costs from RS Means is shown in a table below.



The total comparable annual renewal budget for all Silver Bay facilities over the next 20 years totals \$27 million, or an average of \$1.35 million per year. However, like with the City Hall/Police Station, the deferred maintenance costs fall heavily in the first year (2015).



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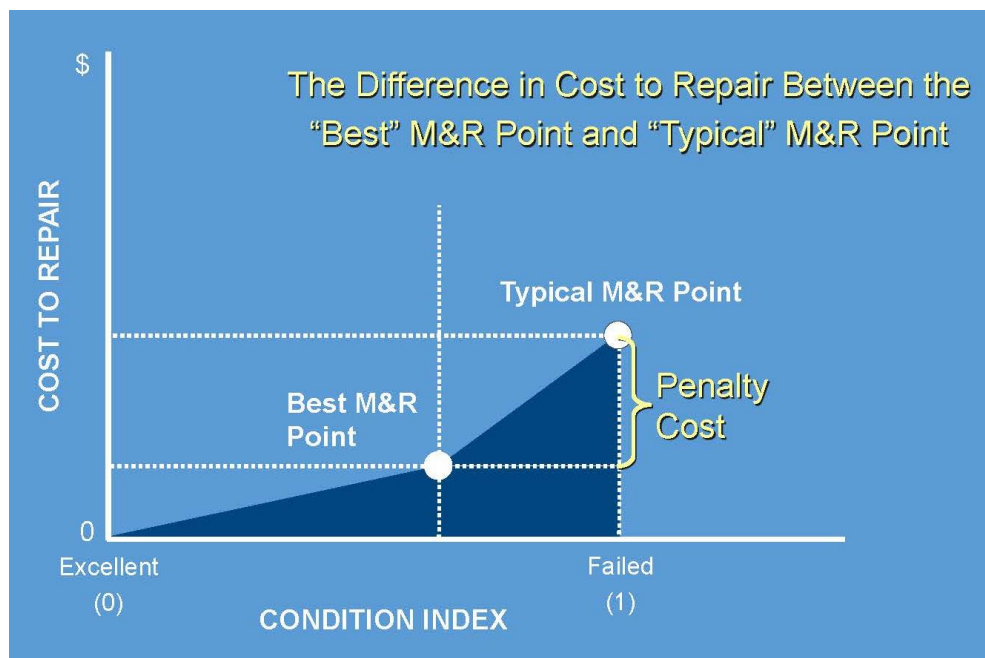
Opportunities and Challenges

The results of the FCI and Funding Needs reports clearly indicate that the Silver Bay should plan for a substantial investment in renewing major building systems in most of its portfolio of buildings. If the decision is to continue to not invest in the renewal of these systems, the City will need to plan for added costs for ongoing deferred maintenance and deterioration of their buildings. This would be in addition to the eventual replacement of the respective system per building.

These data enables the City to quantitatively assess a variety of options for managing its public facilities, including:

- continuing to use and maintain the building (which will require replacement of major building components such as roofs and heating systems in addition to ongoing maintenance costs),
- Replacing the building with a new facility,
- Discontinuing use of the building and services (not an option for some uses),
- Discontinuing use of the building and consolidation of services into another facility or structure (not an option for some uses).

The illustration below provides an example for how the City should consider these data in evaluating whether to make capital improvements and avoid system failures and the high costs associated with such failures. The typical time for serious consideration of investing in capital improvements to better manage the added cost of deferred maintenance (maintenance and repair, M&R) is demonstrated below. The penalty cost is the significantly higher costs of dealing with a failed component.



A building by building summary that includes identification of priority issues is provided on the following pages. A detailed system by system table for each building is provided in Appendix 2.

Executive Summary Report All City Facilities

Airport Hangar 1

Size: 7,200 SF

Replacement Cost FY 2015: \$486,692

FCI: .07 (7% of the Replacement Value = \$34,068 based on FY 2015)

2016 Total Renewal Costs = \$ 34,357

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

Silver Bay contracted with CR-BPS to perform a building assessment of the Airport Hangar structure located at County Road 3. The building gross area is approximately 7,200 square feet, it is a single story structure built in 1995. Major structural systems consist of a metal building system with an industrial concrete slab foundation/floor. It is an unheated building with electric lighting.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.07** which indicates that 7% of the replacement value of the building (\$34,068) is needed to bring the building up to like new condition. A **FCI of .07 is considered to be in good condition.**

1.1 Priority Level 1A – Currently Critical

The following is a list of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed “critical” because they have a Condition Rating of a Level 1A = Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. There are no Currently Critical deficiencies for this building.

See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Airport Hanger 2

Size: 6,696 SF

Replacement Cost FY 2015: \$372,000

FCI: .11 (11% of the Replacement Value = \$ 40,920 based on FY 2015)

2016 Total Renewal Costs = \$41,396

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Airport Hanger 2 structure located at County Road 3. The building gross area is approximately 6,696 square feet, it is a single story structure built in 1995. Major structural systems consist of engineering metal building system with industrial concrete slab floor. There is no mechanical heating distribution system.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.11** which indicates that 11% of the replacement value of the building (\$40,920) is needed to bring the building up to a like new condition. **A FCI of .11 is considered to be in good condition** hence a major rehabilitation and or replacement of the building is not recommended.

1.1 Priority Level 1A – Currently Critical

The following is a list of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed “critical” because they have a Condition Rating of a Level 1A = Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. There are no Currently Critical deficiencies for this building.

See Appendix 2 for a detailed summary of all building systems.

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New Airport building

Size: 816 SF

Replacement Cost FY 2015: \$167,845

FCI: .06 (6% of the Replacement Value = \$10,070 based on FY 2015)

2016 Total Renewal Costs = \$186

2018 Total Renewal Costs = \$ 12,176

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the FBO New Airport structure located at County Road 3. The building gross area is approximately 816 square feet, it is a single story structure built in 2008. Major systems consist of wood framed walls and roof with vinyl "log like" siding. It has a concrete floor slab and footings and a metal roof covering. Floor finishes include concrete and ceramic tile. Interior walls are painted gypsum wall board. Mechanical heating distribution system is fed by a gas fired boiler.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.06** which indicates that 6% of the replacement value of the building (\$10,070) is needed to bring the building up to like new condition. An **FCI of .06 is considered to be a good condition** hence no major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a list of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed "critical" because they have a Condition Rating of a Level 1A = Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. There are no Currently Critical deficiencies for this building.

See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Old Airport Building

Size: 1,152 SF

Replacement Cost FY 2015: \$186,726

FCI: .78 (78% of the Replacement Value = \$145,646 based on FY 2015)

2015 Total Renewal Costs = \$ 139,951

2018 Total Renewal Costs = \$ 6,624

2020 Total Renewal Costs = \$ 895

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Old FBO Airport building structure located at County Road 3. The building gross area is approximately 1,152 square feet, it is a single story structure built in 1960. Major systems consist of wood framed wall and roof with wood siding. It has a concrete slab floor and economy grade metal roof. Major floor finishes are vinyl composite tile and concrete. Interior walls are

T & G pine paneling and painted finish walls. Mechanical heating distribution systems are fed by a gas fired boiler within the complex. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.78** which indicates that 78% of the replacement value of the building (\$145,646) is needed to bring the building up to like new condition. An **FCI of .78 is considered to be a very unsatisfactory condition** hence demolition of building is recommended.

1.1 Priority Level 1A – Currently Critical

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- A. There are no Currently Critical deficiencies for this building.

See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

City Hall & Police Station

Size: 6,192 SF

Replacement Cost FY 2015: \$1,360,803

FCI: .59 (59% of the Replacement Value = \$802,874 based on FY 2015)

2015 Total Renewal Costs = \$621,780

2018 Total Renewal Costs = \$107,438

2019 Total Renewal Costs = \$14,857

2020 Total Renewal Costs = \$94,519

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the City Hall & Police Station structure located at 7 Davis Drive. The building gross area is approximately 6,192 square feet, it is a two story structure built in 1969 with improvements occurring in 1978, 1994, 2000, 2003 and 2010. Major structural systems consist of brick composite walls with precast floor and roof. Major finishes are vinyl composite tile, carpet, ceramic and quarry tile. Mechanical heating distribution systems are fed by a gas fired boiler within the complex. Several code requirements were present: non-compliant kitchenettes and/or countertops, non-compliant access to water closets, non-compliant door hardware, signage and door swing requirements. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.59** which indicates that 59% of the replacement value of the building (\$802,874) is needed to bring the building up to like new condition. An **FCI of .59 is considered to be an unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B30 - Roofing:** System was installed in 1969 with numerous repairs and is in poor condition. Supporting documentation of past repairs or roof replacement were not available. Renewal Cost: \$45,196.

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- B. **B2030 – Exterior Doors** – Overhead Sectional Door – Installed in 1969.
Renewal Cost: \$9,456



See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Fire Hall

Size: 4,588 SF

Replacement Cost FY 2015: \$585,956

FCI: .60 (60% of the Replacement Value = \$351,574 based on FY 2015)

2015 Total Renewal Costs = \$340,618

2018 Total Renewal Costs = \$3,166

2019 Total Renewal Costs = \$7,992

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Fire Hall structure located at 7 Davis Drive. The building gross area is approximately 4,588 square feet, it is a one story structure built in 1966 with improvements occurring in 1978, 1994, 2003 and 2010. Major systems consist of CMU/brick composite walls, metal framed roof and a 6" concrete floor slab. It is assumed that the roof has a Built-up Roof covering system. Major floor finishes are concrete, carpet and vinyl composite tile. Mechanical heating distribution systems are fed by a gas fired boiler within the complex. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.60** which indicates that 60% of the replacement value of the building (\$351,573) is needed to bring the building up to like new condition. An **FCI of .60 is considered to be an unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B30 - Roofing:** System was installed in 1985. Renewal Cost: \$55,706.

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- B. **B2020 – Exterior Windows:** System was installed in 1986.
Renewal Cost: \$4,728.



See Appendix 2 for a detailed summary of all building systems.

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Liquor Store

Size: 9,623 SF

Replacement Cost FY 2015: \$2,524,002

FCI: .18 (18% of the Replacement Value = \$ 454,320 based on FY 2015)

2016 Total Renewal Costs = \$460,981

2017 Total Renewal Costs = \$2,148

2018 Total Renewal Costs = \$3,490

2019 Total Renewal Costs = \$25,202

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Liquor Store structure located at 95 Outer Drive. The building gross area is approximately 9,623 square feet. It is a one story structure with a walk-out basement built in 1977 and major improvements/additions occurring in 1995, and 2008. Major systems consist of CMU bearing walls and heavy timber and metal framed roof system with fiber cement siding and a concrete floor slab foundation system. The roof covering is a metal standing seam roof and EPDM membrane for the low slope areas of the roof. Major finishes are vinyl composite floor tile, painted gypsum wall board and wood interior doors. Mechanical heating distribution systems are fed by a gas fired boiler within the complex. It is recommended that an Accessibility Assessment be completed for the lower level in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.18** which indicates that 18% of the replacement value of the building (\$454,320) is needed to bring the building up to a like new condition. **A FCI of .18 is considered to be a good to fair condition.** Since this building is at the beginning of its life cycle it is highly recommended that an operations and maintenance/capital plan be implemented to keep the long term costs for repair as low as possible.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

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- A. **B30 - Roofing:** The system that was installed in 1977 is in poor condition. Supporting documentation of past repairs or roof replacement were not available. Renewal Cost: \$107,867.
- B. **B2020 – Domestic Water Distribution:** System was installed in 1977, both distribution system and water heater and are in poor condition. Renewal Cost: \$24,102.



See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Library

Size: 4,160 SF

Replacement Cost FY 2015: \$588,733

FCI: .43 (43% of the Replacement Value = \$ 253,172 based on FY 2015)

2015 Total Renewal Costs = \$226,958

2016 Total Renewal Costs = \$24,360

2020 Total Renewal Costs = \$5,013

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the library structure located at 9 Davis Drive. The building gross area is approximately 4,160 square feet. It is a single story building with a walk out basement structure over a quarter of the building. It was built in 1967 with improvements occurring in 1985, 1995, 2000, 2003, 2004, 2010, 2013 and 2014. Major systems consist of CMU backed brick composite walls, concrete floor slab and a metal framed roof. Major floor finishes are carpet and ceramic tile. Mechanical heating distribution systems are fed by a gas fired boiler within the complex. Additional space is needed to allow for more programming of library activities.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.43** which indicates that 43% of the replacement value of the building (\$253,172) is needed to bring the building up to a like new condition. A **FCI of .43 is considered to be in fair to poor condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B30 - Roofing:** Current System was installed in November 1989 and is in poor condition. Supporting documentation of past repairs or roof replacement was not available. Renewal Cost: \$45,196
- B. **B2020 – Domestic Water Distribution:** System was installed in 1967 and is in poor condition. Renewal Cost: \$20,261



See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Mary MacDonald Building

Size: 59,072 SF

Replacement Cost FY 2015: \$13,709,146

FCI: .72 (72% of the Replacement Value = \$9,870,585 based on FY 2015)

2016 Total Renewal Costs = \$9,376,347

2019 Total Renewal Costs = \$582,416

2020 Total Renewal Costs = \$3,341

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Mary McDonald building structure located at 99 Edison Blvd. The building gross area is approximately 59,072 square feet. It is a one story structure with a mechanical tunnel throughout the building built in 1960 with improvements occurring in 2000, 2009 and 2010. Major systems consist of CMU/brick composite bearing walls with a metal framed roof system. The roof covering is single membrane EPDM. Major floor finishes are terrazzo, wood, vinyl composite tile, carpet, and ceramic tile. Walls are plaster, glazed ceramic tile and raised wood paneling. Mechanical heating distribution systems are fed by a gas fired steam boiler and two fuel oil back-up boilers within the complex. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each systems within the building.

The Facility Condition Index (FCI) for this building is **.72** which indicates that 72% of the replacement value of the building (\$9,870,585) is needed to bring the building up to a like new condition. **A FCI of .72 is considered to be an unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B30 - Roofing:** System was installed in 1962 with numerous repairs and is in poor condition. Supporting documentation of

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past repairs or roof replacement were not available. Renewal Cost: \$1,029,345.



See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Public Works

Size: 12,135 SF

Replacement Cost FY 2015: \$1,946,560

FCI: .38 (38% of the Replacement Value = \$739,963 based on FY 2015)

2015 Total Renewal Costs = \$ 739,702

2016 Total Renewal Costs = \$ 699,079

2018 Total Renewal Costs = \$27,211

2020 Total Renewal Costs= \$5,908

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Public Works structure located at 13 Shop Hill Road. The building gross area is approximately 12,135 square feet, it is a single story structure built in 1978 with improvements occurring in 2000, 2005, 2008 and 2013. Major systems consist of pre-cast concrete panel exterior walls with a 6" concrete floor and precast panel/steel support structural roof system. Major floor finishes are concrete, vinyl composite tile and ceramic tile. Wall finish is paint. Mechanical heating distribution systems are fed by a gas fired furnace within the complex. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.38** which indicates that 38% of the replacement value of the building (\$739,693) is needed to bring the building up to a like new condition. **A FCI of .38 is considered to be a fair to poor condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B30 - Roofing:** System was installed in 1978. Supporting documentation of past repairs or roof replacement were not available. Renewal Cost: \$166,001.

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- B. **B10 - Superstructure:** System was installed in 1978. There are signs of inadequate subsurface soil bearing capacity. It is causing movement and premature failure of the structural wall system. It is recommended that a study be conducted to determine the type of repair that is needed to fix this deficiency. Structural Integrity Study Cost: \$5,800



- C. **D3040 – Exhaust Distribution System:** System was installed in 1978. Renewal Cost: \$55,479.

See Appendix 2 for a detailed summary of all building systems.



City of Silver Bay Comprehensive Plan

Recreation Center

Size: 2,220 SF

Replacement Cost FY 2015: \$288,662

FCI: .62 (62% of the Replacement Value = \$178,970 based on FY 2015)

2015 Total Renewal Costs = \$221,659

2016 Total Renewal Costs = \$24,360

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Recreation Center structure. The building gross area is approximately 2,200 square feet. It is a single story with walk out basement structure built in 1950 with improvements occurring in 1985, 1987, 1995, 2012 and 2014. Major systems consist of CMU bearing wall and wood framed walls and roof. There is a concrete floor slab and concrete foundation system. The roof is covered with asphalt shingles that were installed in 2014. Major finishes are wood paneling on walls and ceiling on the main level. There is carpet on main level. Mechanical heating distribution systems are fed by a gas fired furnace within the complex. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.62** which indicates that 62% of the replacement value of the building (\$178,970) is needed to bring the building up to a like new condition. **A FCI of .62 is considered to be a very unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B2020 – Exterior Windows:** System was installed in 1950 and are in poor condition. Renewal Cost: \$17,797.
- B. **B2030 – Exterior Doors:** System was installed in 1950. Renewal Costs: \$ 9,769.



City of Silver Bay Comprehensive Plan

Reunion Hall

Size: 15,872 SF

Replacement Cost FY 2015: \$1,527,810

FCI: .54 (54% of the Replacement Value = \$833,134 based on FY 2015)

2015 Total Renewal Costs = \$846,786

2016 Total Renewal Costs = \$28,497

2017 Total Renewal Costs = \$ 2,249

2020 Total Renewal Costs = \$ 4,201

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Reunion Hall structure located at 97 Outer Drive. The building gross area is approximately 15,872 square feet. It is a single story with a walk out basement built in 1958 with improvements occurring in 1990, 1992, 1998, 2000 and 2006. Major systems consist of CMU/brick composite bearing walls, metal paneled and Exterior Insulation Finish System (EFIS) siding, metal framed roof structure and a single-ply EPDM roof covering. It has a CMU block foundation and concrete slab basement floor. Major floor finishes are vinyl composite tile and ceramic. Mechanical heating distribution systems are fed by a gas fired furnace and rooftop units that also supply cooling to the main level. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.54** which indicates that 54% of the replacement value of the building (\$833,134) is needed to bring the building up to a like new condition. An **FCI of .54 is considered to be an unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

City of Silver Bay Comprehensive Plan

A. **B30 - Roofing:**

System was installed in 1990. Renewal Cost: \$123,664.

B. **B2020 – Exterior Basement**

Windows: System was installed in 1958. Renewal Cost: \$2,150.

C. **D2020 – Domestic Water Distribution**

– System installed in 1978. Renewal Cost: \$21,214.

D. **D2020 – Domestic Water Distribution**

– Water heater – Gas
– 40 gallon. Installed in 2006. Renewal Cost: \$4,259.

E. **D3050 – Terminal and Package Units**

– 2 Rooftop Unitary AC – Cooling w/Gas heat installed in 1998. Renewal Cost: \$89,890.



See Appendix 2 for a detailed summary of all building systems.



City of Silver Bay Comprehensive Plan

Senior Workshop

Size: 2,130 SF

Replacement Cost FY 2015: \$317,225

FCI: .68 (68% of the Replacement Value = \$215,713 based on FY 2015)

2016 Total Renewal Costs = \$209,047

2018 Total Renewal Costs = \$ 18,975

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Senior Workshop structure. The building gross area is approximately 2,130 square feet, it is a one story structure built in 1950 with improvements occurring in 1988, 2008 and 2014. Major systems consist of wood framed bearing walls and wood framed roof structure with metal roof covering. Major finishes are vinyl composite tile flooring, raised wood paneled walls and plastic tile in restroom. Mechanical heating distribution systems are fed by a gas fired furnaces within the complex. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.68** which indicates that 68% of the replacement value of the building (\$215,713) is needed to bring the building up to a like new condition. **An FCI of .68 is considered to be an unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B2030 Exterior Doors:** system installed in 1988. Renewal costs: \$8,320.
- B. **B2020 – Exterior Windows:** System was installed in 1988. Renewal Cost: \$6,405.

City of Silver Bay Comprehensive Plan

- C. **D2020 – Domestic Water Distribution** – System installed in 1950. Renewal Costs: \$15,514
- D. **D2010 – Plumbing Fixtures** – Restroom Fixtures – Standard. Were installed in 1950. Renewal Costs; \$6,158.
- E. **D2030 - Sanitary Waste:** System installed in 1950. Renewal Costs: \$16,132.
- F. **D5010 - Electrical Service and Distribution:** System installed in 1950. Renewal Costs: \$17,875.



See Appendix 2 for a detailed summary of all building systems.



City of Silver Bay Comprehensive Plan

Tourist Information Center

Size: 1,258 SF

Replacement Cost FY 2015: \$192,985

FCI: .52 (52% of the Replacement Value = \$100,352 based on FY 2015)

2016 Total Renewal Costs = \$104,610

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Tourist Info Center structure located at 80 Outer Drive. The building gross area is approximately 1,258 square feet, it is a one story structure built in 1965 and was moved to this location in 1981 at which time an addition and improvements were made. New roof was put on in 2014. Major systems consist of wood framed bearing walls with wood siding and a standard residential wood truss roof system with asphalt roof covering. A portion of the building has a concrete slab on grade with the remaining a wood framed floor system including a crawl space. Major finishes on floor are carpet and concrete in restrooms. It has an electric baseboard system to supply seasonal heat to the building. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.52** which indicates that 52% of the replacement value of the building (\$100,352) is needed to bring the building up to a like new condition. An **FCI of .52 is considered to be a poor to unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B2030- Exterior Doors:** System was installed in 1981. Renewal Costs: \$9,769.
- B. **B2020 – Exterior Windows:** System was installed in 1981. Renewal Cost: \$3,359.

City of Silver Bay Comprehensive Plan

See Appendix 2 for a detailed summary of all building systems.



City of Silver Bay Comprehensive Plan

Waste Water Treatment Building

Size: 3,276 SF

Replacement Cost FY 2015: \$793,064 (not including waste water treatment pumping and process equipment)

FCI: .44 (44% of the Replacement Value = \$348,948 based on FY 2015)

2016 Total Renewal Costs = \$364,963

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Waste Water Treatment structure. The building gross area is approximately 3,276 square feet. It is a single story structure with a basement built in 1954 with improvements occurring in 1972, 1994, 1998, 2001, 2003, 2011, and 2014. Major systems consist of a concrete and CMU Backup/ Rock face block CMU composite bearing walls, precast roof and floor framing systems with a single-ply EPDM roof covering. The foundation is concrete and with a concrete floor slab at the basement level. Major floor finishes are concrete and vinyl composite tile. Mechanical heating distribution systems are a hot water boiler system fed by a gas fired boiler within the complex. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.44** which indicates that 44% of the replacement value of the building (\$348,948) is needed to bring the building up to like new condition. An **FCI of .44 is considered to be a poor to unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended. Process equipment to run the waste water treatment plant were not included in this assessment.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. D3050 – Terminal & Package Units** – Unit Heaters – Hot water from boiler – General Bldg. installed in 1972.
Renewal costs: \$2,980.
- B. D3040 – Distribution Systems** – Perimeter heat system – Hydronic installed in 1972. Renewal Costs: \$206,552.

City of Silver Bay Comprehensive Plan

See Appendix 2 for a detailed summary of all building systems.



City of Silver Bay Comprehensive Plan

Water Treatment Lift Station

Size: 600 SF

Replacement Cost FY 2015: \$94,843 (not including water treatment pumping and process equipment)

FCI: .34 (34% of the Replacement Value = \$94,843 based on FY 2015)

2016 Total Renewal Costs = \$ 21,024

2018 Total Renewal Costs = \$ 5,840

2019 Total Renewal Costs = \$ 7,957

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Water Treatment Lift Station structure located at East Lakeview Drive. The building gross area is approximately 600 square feet. It is a single story structure built in 1952 with improvements occurring in 1978, 1994, and 1998. Major systems consist of concrete bearing walls of sided with metal panels. There is a concrete floor and foundation system. The roof is concrete covered with EPDM roofing. There is small electric heater.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.34** which indicates that 34% of the replacement value of the building (\$32,247) is needed to bring the building up to like new condition. An **FCI of .34 is considered to be a fair to poor condition** hence a major rehabilitation and or replacement of the building is recommended. Process equipment to run the water treatment plant were not included in this assessment.

1.2 Priority Level 1A – Currently Critical

The following is a list of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed “critical” because they have a Condition Rating of a Level 1A = Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. There are no Currently Critical deficiencies for this building.

See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Water Treatment Main Bldg

Size: 10,940 SF

Replacement Cost FY 2015: \$2,112,286

FCI: .14 (14% of the Replacement Value = \$295,720 based on FY 2015)

2016 Total Renewal Costs = \$190,663

2018 Total Renewal Costs = \$77,287

2019 Total Renewal Costs = \$65,749

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Water Treatment Main Building structure located at Lakeview Drive. The building gross area is approximately 10,940 square feet. It is a two story structure built in 1952 with improvements occurring in 1978, 1994, 1995, 1998, 2007 and 2015. Major systems include CMU backup/4" rock-face CMU composite bearing wall system, concrete floor and roof superstructure and a single-ply EPDM roof covering. Major floor finishes are sealed concrete and quarry tile. Mechanical heating distribution systems are fed by a gas fired boiler within the complex. There is a heavy capacity electric service system to handle all the pumping and processing loads needed to run the equipment. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.14** which indicates that 14% of the replacement value of the building (\$295,720) is needed to bring the building up to a like new condition. An **FCI of .14 is considered to be a good condition** hence no major rehabilitation and or replacement of the building is recommended. Process equipment to run the water treatment plant were not included in this assessment.

1.1 Priority Level 1A – Currently Critical

The following is a list of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed "critical" because they have a Condition Rating of a Level 1A = Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. There are no Currently Critical deficiencies for this building.

City of Silver Bay Comprehensive Plan

See Appendix 2 for a detailed summary of all building systems.



City of Silver Bay Comprehensive Plan

Water Treatment Metal Storage Building

Size: 3,680 SF

Replacement Cost FY 2015: \$284,437

FCI: .32 (32% of the Replacement Value = \$91,020 based on FY 2015)

2016 Total Renewal Costs = \$95,565

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Water Treatment metal storage structure located at Lakeview Drive. The building gross area is approximately 3,680 square feet. It is a single story wood framed/metal paneled pole structure built in 1982. There is a small wood framed mezzanine in the cold storage portion of the building. Major finishes are metal paneled exterior walls and roof with a heavy industrial concrete slab floor in the warm storage area. There are gas fired unit heaters in the warm storage area of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.32** which indicates that 32% of the replacement value of the building (\$91,020) is needed to bring the building up to like new condition. An **FCI of .32 is considered to be a fair to poor condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B2020 – Exterior Windows:** System was installed 1982. Renewal Cost: \$5,733.
- B. **B2030 Exterior Overhead Sectional Doors:** System was installed in 1982. Renewal costs: \$13,914.

See Appendix 2 for a detailed summary of all building systems.



City of Silver Bay Comprehensive Plan

Water Treatment Tool House

Size: 1,092 SF

Replacement Cost FY 2015: \$112,114

FCI: .34 (34% of the Replacement Value = \$38,119 based on FY 2015)

2016 Total Renewal Costs = \$40,026

Renewal Inflation Cost: 4.7% over 20 Years

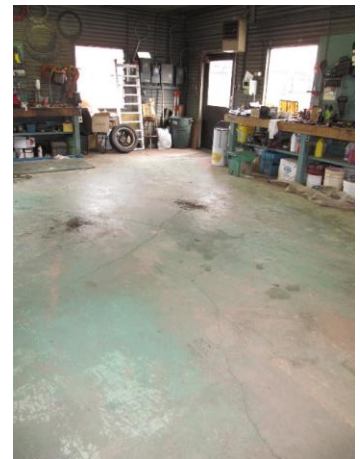
1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Water Treatment Tool House structure located at Lakeview Drive. The building gross area is approximately 1,092 square feet, it is a single story structure built in 1952. Improvements occurred in 1994 and 1998. Major systems include metal wall siding and wall finishes with concrete floor and metal roof. The building is heated with gas fired unit heaters.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.34** which indicates that 34% of the replacement value of the building (\$38,119) is needed to bring the building up to like new condition. An **FCI of .34 is considered to be a fair to poor condition** hence a major rehabilitation and or replacement of the building is recommended.

See Appendix 2 for a detailed summary of all building systems.



City of Silver Bay Comprehensive Plan

Golf Cart Storage

Size: 2,000 SF

Replacement Cost FY 2015: \$123,636

FCI: .32 (32% of the Replacement Value = \$39,564 based on FY 2015)

2016 Total Renewal Costs = \$37,472

2017 Total Renewal Costs = \$ 3,615

2018 Total Renewal Costs = \$ 1,180

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Golf Cart Storage structure located at 17 Golf Course Drive. The building gross area is approximately 2,000 square feet. Major systems include an engineered metal building system with a concrete floor slab. It is an unheated building with electricity.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.32** which indicates that 32% of the replacement value of the building (\$39,564) is needed to bring the building up to like new condition. An **FCI of .32 is considered to be a fair to poor condition** hence a major rehabilitation and or

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B2020 – Exterior Windows:** System was installed in 1957. Renewal Cost: \$4,300.
- B. **B2030 – Exterior Doors:** System was installed in 1957. Renewal Cost: \$6,844.
- C. **Substructure** – Slab on Grade- Installed in 1957. Erosion underneath slab. Renewal Cost - \$1,180



See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Golf Club House

Size: 6,080 SF

Replacement Cost FY 2015: \$1,019,906

FCI: .68 (68% of the Replacement Value = \$693,536 based on FY 2015)

2016 Total Renewal Costs = \$722,038

2020 Total Renewal Costs = \$3,129

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Golf Course Club House structure located at 17 Golf Course Road. The building gross area is approximately 6,080 square feet, it is a one story structure with full walk out basement and attic space built in 1957 with improvements occurring in 1990, 2002, 2005, 2008, 2012, and 2014. Major systems consist of wood framed walls, metal framed roof with wood support members, wood and metal sided walls, CMU basement wall and foundation and an asphalt shingled roof. Major floor finishes are carpet, wood and ceramic tile. Mechanical heating distribution systems are fed by a gas fired boiler within the complex. It is recommended that an Accessibility Assessment be completed in the future. Upgrades for accessibility are required when a project is implemented that is valued at 80% of the total replacement value of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.68** which indicates that 68% of the replacement value of the building (\$693,536) is needed to bring the building up to like new condition. An **FCI of .68 is considered to be an unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

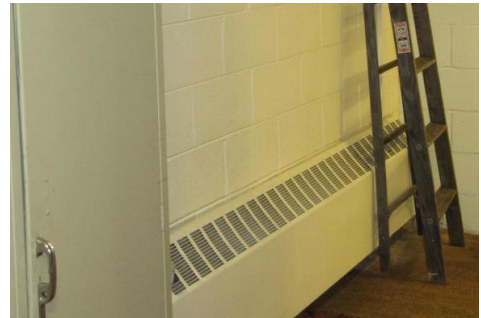
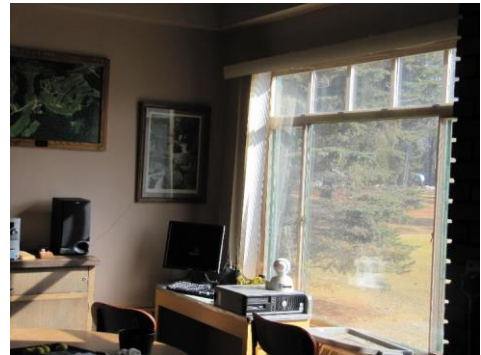
- A. **B2010 Exterior Walls:** Wood and metal siding was installed in 1957 and are in poor



City of Silver Bay Comprehensive Plan

condition. Glass block was installed in 1957. Renewal Cost: \$3,070.

- B. **B2020 – Exterior Windows:** System was installed in 1957 and 1990 and is in poor condition. Renewal Cost: \$44,818.
- C. **B2030 – Exterior Doors:** System was installed in 1957 and are in poor condition. Renewal Cost: \$21,190.
- D. **D2020 – Domestic Water Distribution:** Well installed in 1957 and domestic hot water heaters in 2005. Renewal Cost: \$23,565.
- E. **D2030 – Sanitary Waste System:** Septic System was installed in 1957. Renewal Cost: \$20,556.
- F. **D3040 – Exhaust Systems:** System was installed in 1957. It is in poor condition. Renewal Cost: \$18,861.
- G. **D3040 – Perimeter Heat System:** Hydronic System was installed in 1957. Renewal Cost: \$ 52,436.
- H. **D5010 – Electrical Service and Distribution:** System was installed in 1957. Renewal Cost: \$51,023.
- I. **D5021 – Branch Wiring:** System was installed in 1957. Needs updating. Renewal Cost: \$21,451.
- J. **D5022 – Lighting Equipment:** System was installed in 1957. Renewal Cost: \$35,715.



See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Golf Course Greenhouse

Size: 1,260 SF

Replacement Cost FY 2015: \$88,789

FCI: .51 (51% of the Replacement Value = \$45,282 based on FY 2015)

2015 Total Renewal Costs = \$45,589

2017 Total Renewal Costs = \$ 1,463

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Golf Course Greenhouse structure located at 17 Golf Course Road. The building gross area is approximately 1,260 square feet, it is a one story metal structure built in 1957. It has a concrete floor slab and foundation with a metal roof and metal siding. The greenhouse portion has translucent paneled walls.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.51** which indicates that 51% of the replacement value of the building (\$45,282) is needed to bring the building up to a like new condition. An **FCI of .51 is considered to be an unsatisfactory condition** hence a major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a List of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed 'critical' because they have a Condition Rating of Level 1A - Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. **B30 - Roofing:** Metal roof System was installed in 1957 and is in poor condition. Renewal Cost: \$14,729.
- B. **B2020 – Exterior Windows:** Metal windows and translucent panels were installed in 1957 and are in poor condition. Renewal Cost: \$7,287.
- C. **B2030 – Exterior Door:** One metal door was installed in 1957 and is in poor condition. Renewal Cost: \$2,705.



City of Silver Bay Comprehensive Plan

Golf Club Maintenance Building

Size: 2,432 SF

Replacement Cost FY 2015: \$199,840

FCI: .06 (6% of the Replacement Value = \$11,990 based on FY 2015)

2016 Total Renewal Costs = \$11,605

Renewal Inflation Cost: 4.7% over 20 Years

1.0 Executive Summary

The City of Silver Bay contracted with CR-BPS to perform a building assessment of Golf Club Maintenance Building structure located at 17 Golf Course Road. The buildings gross area is approximately 2,432 square feet, it is a single story metal structure built in 1993. Major systems consist of a wood framed pole building with metal siding and roof covering. It has a concrete floor slab and concrete foundation at structural support columns. Heating distribution systems are electric unit heaters in the workshop area of the building.

The primary intent of the project is to provide an analysis of deferred maintenance and average age and condition of each system within the building.

The Facility Condition Index (FCI) for this building is **.06** which indicates that 6% of the replacement value of the building (\$11,990) is needed to bring the building up to like new condition. An **FCI of .06 is considered to be good condition** hence no major rehabilitation and or replacement of the building is recommended.

1.1 Priority Level 1A – Currently Critical

The following is a list of Critical Deficiencies for use in current capital improvement project planning and budgeting. The following deficiencies are deemed “critical” because they have a Condition Rating of a Level 1A = Currently Critical or because certain areas within a system should be addressed to alleviate accumulative effected damage resulting in costly repairs. It is our recommendation that the following systems are in need of immediate attention:

- A. There are no Currently Critical deficiencies for this building.

See Appendix 2 for a detailed summary of all building systems.

City of Silver Bay Comprehensive Plan

Street/Sidewalk Requirements Report

The current cost for making the improvements to the Streets and Sidewalks per the original Short Elliott Hendrickson Inc. pavement management plan completed in 2007 is shown below. A new assessment was not completed, and thus the needed scope of work is likely to have changed over the last eight years. These estimates should be treated accordingly, and new assessments will be needed prior to including project in the capital plan or bidding out work.

In 2015 dollars, the estimated cost for completing all the following repairs and improvement is \$1.9 million.

Road Name	Road Segment	Action Required in Assessment Year (2007)	Estimated Cost (2015)
Adams Blvd	Banks Blvd. - Arthur So	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$6,388
Adams Blvd	Arthur Circle So - Arthur Circle N	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$16,126
Adams Blvd	Aiken Circle So - Aiken Circle N	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$9,357
Adams Blvd	Outer Dr. - Aiken Circle S	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$7,984
Adams Blvd	Aiken Circle No. - Banks Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$5,750
Aiken Circle	Adams Blvd. - Adams Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$15,488
Arthur Circle	Adams Blvd. - Adams Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$20,373
Banks Blvd	Charles Circle EAST - Charles Circle W	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$11,273
Banks Blvd	Carter Lane - Charles Circle E	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$8,336
Banks Blvd	Davis Drive NO - Davis Drive S	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$9,518
Banks Blvd	Davis Drive SO - Edison Blvd	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$9,454
Banks Blvd	Charles Circle WEST - Davis Drive N	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$8,783
Banks Blvd	Edison Blvd - Horn Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$15,808
Banks Blvd	Bell circle WEST - Carter Lane	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$7,920
Banks Blvd	Adams Blvd. - Bell Circle East	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$6,835
Banks Blvd	Bell Circle EAST - Bell circle W	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$10,347
Bell Circle	Banks Blvd. - Banks Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$18,330
Burke Drive	Banks Blvd. - Carter Lane	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$16,159
Burke Drive	Chase Lane - Banks Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$14,084
Burke Drive	Carter Lane - Chase Lane	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$13,604
Carter Lane	Banks Blvd. - Burke Drive	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$8,527
Charles Circle	Banks blvd. - Banks Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$13,061
Chase Lane	Burke Drive - End	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$8,336
Chase Lane	Banks blvd. - Burke Drive	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$6,228
Davis Drive	Banks Blvd. - Outer Drive	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$10,316
Davis Drive	Dodge Lane - Banks Blvd	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$5,717
Davis Drive	Drake Circle - Dodge Lane	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$6,420
Davis Drive	Dodge Lane - Drake Circle	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$22,385
Davis Drive	Banks Blvd. - Dodge Lane	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$5,621
Dodge Lane	Davis Drive - Davis Drive	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$9,198

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Road Name	Road Segment	Action Required in Assessment Year (2007)	Estimated Cost (2015)
Drake Circle	Davis Drive - End	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$10,699
Edison Blvd.	Green Lane - Garden Drive	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$11,912
Edison Blvd.	Edwards Drive - Banks Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$7,793
Edison Blvd.	Field Road - Edwards Drive	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$7,762
Edison Blvd.	Law Drive East - Law Drive W	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$14,115
Edison Blvd.	Penn Blvd. - Horn Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$13,988
Edison Blvd.	Garden Drive -Field Road	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$8,879
Edison Blvd.	Outer Drive - Law Drive W	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$7,984
Edison Blvd.	Horn Blvd. - Green Lane	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$11,337
Edison Blvd.	Law Drive East - Penn Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$7,825
Edwards Drive	Gibson Road - Field Road	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$6,580
Edwards Drive	Green Lane - Gibson Road	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$9,613
Edwards Drive	Horn Blvd. - Green Lane	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$8,943
Edwards Drive	Field Road - Edison Blvd.	Replace Curb/CB, Mill and Replace surface	\$119,698
Evans Circle	Horn Blvd. - Horn Blvd.	Replace Curb/CB, Mill and Replace Surface	\$173,878
Field Road	Edwards Drive - Edison Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$10,572
Field Road	Horn Blvd. - Edwards Drive	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$8,814
Floyd Circle	Edison Blvd. - END	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$13,094
Garden Drive	Horn Blvd. - Green Lane	Replace Curb/CB Mill and Replace Surface	\$121,798
Garden Drive	Green Lane - Edison Blvd.	Replace Curb/CB, Mill and Replace Surface	\$154,978
Gibson Road	Horn Blvd. - Edwards Drive	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$9,357
Gibson Road	Edwards Drive - Edison Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$8,751
Green Lane	Edwards Drive - Edison Blvd.	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$6,900
Green Lane	Edison Blvd. - Garden Drive	Fill Cracks, Seal Surface, Localized Curb/CB Repair	\$6,739
Hays Circle	Ives Road West - James Road W	Replace Curb/CB, Mill and Replace Surface	\$40,319
Hays Circle	James Road West - James Road E	Replace Curb/CB, Mill and Replace Surface	\$165,057
Hays Circle	Ives Road East - Garden Drive	Fill Cracks, Seal Surface, localized Curb/CB Repair	\$6,802
Hays Circle	Horn Blvd. - Ives Road West	Replace Curb/CB, Mill and Replace Surface	\$137,758
Hays Circle	James Road East - Ives Road E	Fill Cracks, Seal Surface, localized Curb/CB Repair	\$7,377
Horn Blvd	Evans Circle WEST - Gibson Road	Fill Cracks, Seal Surface, localized Curb/CB Repair	\$9,101
Horn Blvd	Field Road - Banks Blvd.	Fill Cracks, Seal Surface, localized Curb/CB Repair	\$5,940
Horn Blvd	Garden Drive - Edison Blvd.	Fill Cracks, Seal Surface, localized Curb/CB Repair	\$7,027
Horn Blvd	Gibson Road = Field Road	Fill Cracks, Seal Surface, localized Curb/CB Repair	\$6,644
Horn Blvd	Banks Blvd. - Outer Drive	Fill Cracks, Seal Surface, localized Curb/CB Repair	\$7,762
Horn Blvd	Edison Blvd. - Evans Circle W	Fill Cracks, Seal Surface, localized Curb/CB Repair	\$9,357
Ives Road	Hays Circle - Hays Circle	Replace curb/CB, Mill and Replace Surface	\$110,039
James Road	Hays Circle - Hays Circle	Replace curb/CB, Mill and Replace Surface	\$120,958
Kent Road	Outer Drive - END	Fill Cracks, Seal Surface, Localized AC Repair	\$5,554
Law Drive	Nelson Drive - Edison Blvd.	Fill Cracks, Seal Surface, Localized AC Repair	\$3,685
Law Drive	Edison Blvd. - Lee Circle	Fill Cracks, Seal Surface, Localized AC Repair	\$5,136
Law Drive	Lee Circle - Edison Blvd.	Fill Cracks, Seal Surface, Localized AC Repair	\$16,118

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Road Name	Road Segment	Action Required in Assessment Year (2007)	Estimated Cost (2015)
Lee Circle	Law Drive - END	Fill Cracks, Seal Surface, Localized AC Repair	\$8,977
Marks Drive	Edison Blvd. - Nelson Drive	Fill Cracks, Seal Surface, Localized AC Repair	\$4,300
Marks Drive	Nelson Drive - Nelson Blvd.	Fill Cracks, Seal Surface, Localized AC Repair	\$13,988
Marks Drive	Nelson Drive West - Quincy Drive	Fill Cracks, Seal Surface, Localized AC Repair	\$13,988
Marks Drive	Quincy Drive - Reed Dr.	Fill Cracks, Seal Surface, Localized AC Repair	\$28,812
Marks Drive	Reed Dr. - Penn Blvd	Fill Cracks, Seal Surface, Localized AC Repair	\$10,438
Nelson Drive	Law Drive - Marks Drive	Fill Cracks, Seal Surface, Localized AC Repair	\$18,957
Nelson Drive	Marks Drive - Marks Drive	Fill Cracks, Seal Surface, Localized AC Repair	\$19,292
Outer Drive	Adams Blvd - Davis Drive	Do Nothing	\$0
Outer Drive	Horn Blvd. - Kent Rd	Do Nothing	\$0
Outer Drive	Davis Drive - Horn Blvd	Do Nothing	\$0
Outer Drive	Highway 61 - Adams Blvd	Do Nothing	\$0
Outer Drive	Kent Rd - Edison Blvd	Fill Cracks, Seal Surfaces, Localized AC Repair	\$11,065
Quincy Drive	Reed Drive - Shaw Lane	Fill Cracks, Seal surfaces, Localized AC Repair	\$7,349
Quincy Drive	Shaw lane - Penn Blvd.	Fill Cracks, Seal surfaces, Localized AC Repair	\$3,883
Quincy Drive	Marks Dr. - Reed Drive	Fill Cracks, Seal surfaces, Localized AC Repair	\$10,940
Reed Drive	Marks Dr. - Quincy Drive	Fill Cracks, Seal surfaces, Localized AC Repair	\$6,973
Reed Drive	Quincy Drive - Shaw Lane	Fill Cracks, Seal surfaces, Localized AC Repair	\$7,474
Reed Drive	Shaw Lane - Penn Blvd	Fill Cracks, Seal surfaces, Localized AC Repair	\$6,765
Shaw Lane	Quincy Drive - Reed Drive	Fill Cracks, Seal surfaces, Localized AC Repair	\$6,055
Total			\$1,933,625



Intergovernmental Cooperation

Communities commonly work with other governmental entities to make decisions, plans, and to coordinate projects where there are shared interests. Silver Bay works in cooperation with numerous governmental and technical assistance agencies, including local governments, regional quasi-governmental bodies, Joint Powers Authorities, and state agencies. Each entity plays a crucial role in supporting the community and surrounding area through funding of infrastructure, regulating and supporting development and coordinating programs and planning. A summary of intergovernmental cooperation entities follows.

Lake County: Lake County is located in the Arrowhead Region of Northeastern Minnesota. More than 10,800 people live in Lake County and thousands more visit the region each year to enjoy a variety of recreational opportunities. Lake County provides services to residents and local governments, and plans for and regulates land development and protection outside the County's incorporated areas. The County regulates land use and development in the township area surrounding Silver Bay. Moreover, Lake County manages tax forfeit lands held by the State of Minnesota, including approximately 80 acres of land within Silver Bay's municipal boundaries. Two Harbors is the County seat.

Lake Superior School District: The Lake Superior School District serves the Silver Bay and Two Harbors area. The William M. Kelley School, in Silver Bay, is kindergarten through twelfth grades and enrolls students throughout the area. Community education classes are also offered at the school.



Surrounding Communities. Communities nearby include Beaver Bay and Beaver Bay Township. Beaver Bay is located approximately 3 miles southwest of Silver Bay and has a population of 181. Beaver Bay is the oldest settlement on the North Shore of Lake Superior, established in 1856. The City has a 4-member City Council and mayor as its governing body. East Beaver Bay is an unincorporated

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community located between Silver Bay and Beaver Bay and governed by Beaver Bay Township. Coordinating with these communities in regard to planning and future development will help strengthen the area.

Iron Range Resource and Rehabilitation Board (IRRRB): IRRRB is a State of Minnesota development agency that promotes and invests in businesses, communities, and workforce development to improve Northeastern Minnesota. IRRRB provides funding through loans and grants to business, local units of government, education institutions, and nonprofit organizations. IRRRB does not conduct regulatory activities, but is a significant funder of many planning and economic development activities in Northern Minnesota.

Arrowhead Regional Development Commission (ARDC): The ARDC is a planning and development organization that serves communities in Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, and St. Louis counties. The ARDC provides assistance to local units of governments and citizens groups to help foster cooperation and local leadership. ARDC is not a regulatory agency, but does provide significant planning and program activities in and around Silver Bay.

Lake County Housing and Redevelopment Authority (LCHRA): LCHRA provides affordable housing and redevelopment programs and services to Lake County residents. Programs offered include rental assistance, property rehabilitation, and first time homebuyer loans with down payment assistance. The LCHRA primarily receives funding through a Lake County tax levy on an annual basis. Additional funding comes from AEOA, Minnesota Department of Employment and Economic Development, Minnesota Housing and Finance Agency, and Minnesota Housing Partnership.



Tettegouche State Park:

Tettegouche State Park, whose entrance is located just 4 ½ miles northeast of Silver Bay on Highway 61, extends into Silver Bay's city limits in the northern portion of the City. The park is a popular year-round destination with visitors coming to hike, ski, snowshoe, snowmobile, camp, and more. While there is no formal entrance to the park from Silver Bay, the park can be accessed from Silver Bay via

hiking trails as well as snowmobile and ATV trails. Approximately 600 acres of Silver Bay are within the Park boundaries, and are exempt from local regulation. The State of Minnesota also owns more than 1,000 acres of primarily forestland inside City boundaries and is adjacent to the Park and used primarily for recreation purposes.

State and Federal Agencies: The City of Silver Bay maintains relationships with a number of state and federal agencies. Minnesota agencies that the City primarily works with include the Department of Natural Resources, the Department of Transportation, and the Minnesota Pollution Control Agency. These agencies are instrumental in the planning and development of parks and trails, transportation, and environmental regulation. The agencies support the City through funding, management,

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cooperation, and development. At the federal level, the Federal Aviation Administration provides funding to help maintain the Silver Bay Airport to keep it within compliance of federal regulations.

North Shore Management Board: The statewide Shoreland Management statute was created in 1970 and required uniform land use and water quality regulation within 100 feet of lakes and 300 feet of all streams and rivers. The North Shore of Lake Superior was exempt from the State rules - an alternative entity was formed to set and oversee land use and water quality standards consistent with state law. A separate joint powers authority, the North Shore Management Board, was created in 1987 to plan for the Lake Superior shore land area and work with local governments to regulate shore land areas (NSMB does not hold separate regulatory authority). The North Shore Management Plan area boundary is defined along the 40-acre subdivision lines of the Public Land Survey rectangular coordinate system, nearest to the landward side of a line 1,000 feet from the shoreline of Lake Superior or 300 feet landward from the center line of U.S. Highway 61, whichever is greater. Silver Bay has a seat on the Board, as do all 10 local governments subject to the Board's planning and regulatory oversight. The most recent plan for Silver Bay's shore land area was completed in 2004.

Arrowhead Economic Opportunity Agency (AEOA): The AEOA is a non-profit organization that delivers a variety of programs and services to communities in the Arrowhead Region of Minnesota. The organization offers programs for transit, housing, senior services, Head Start, and employment and training.

