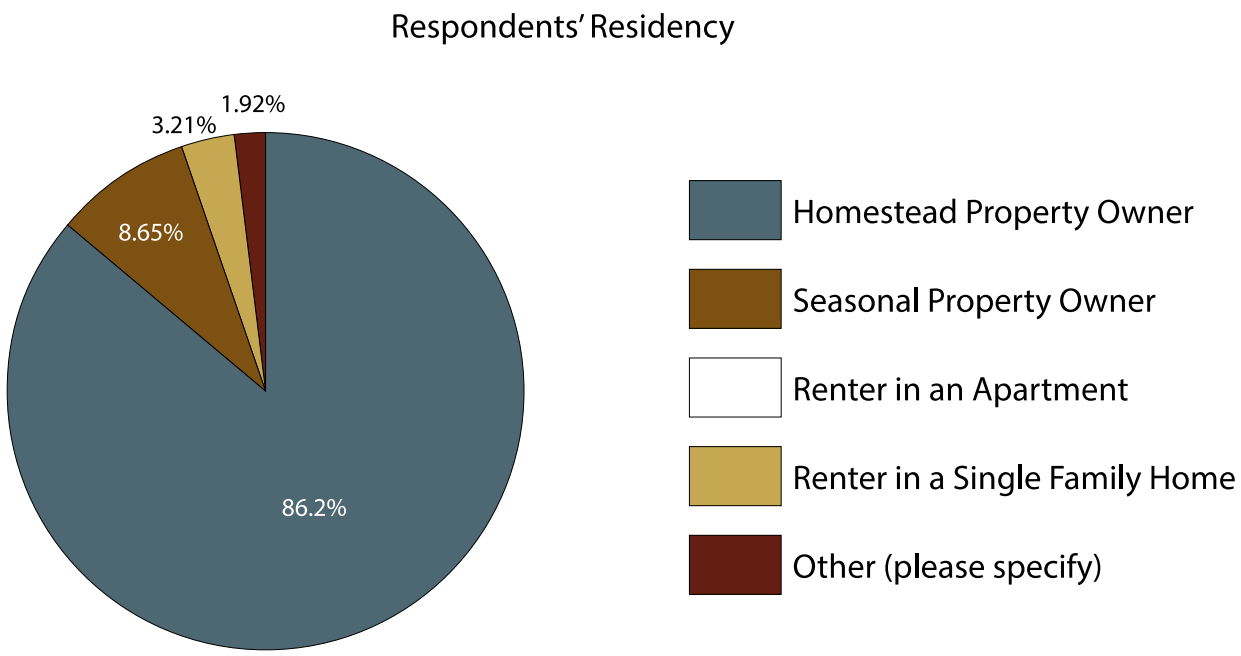
Complete Survey Results

Question 1

Which of the following best describes your residency? (check one)

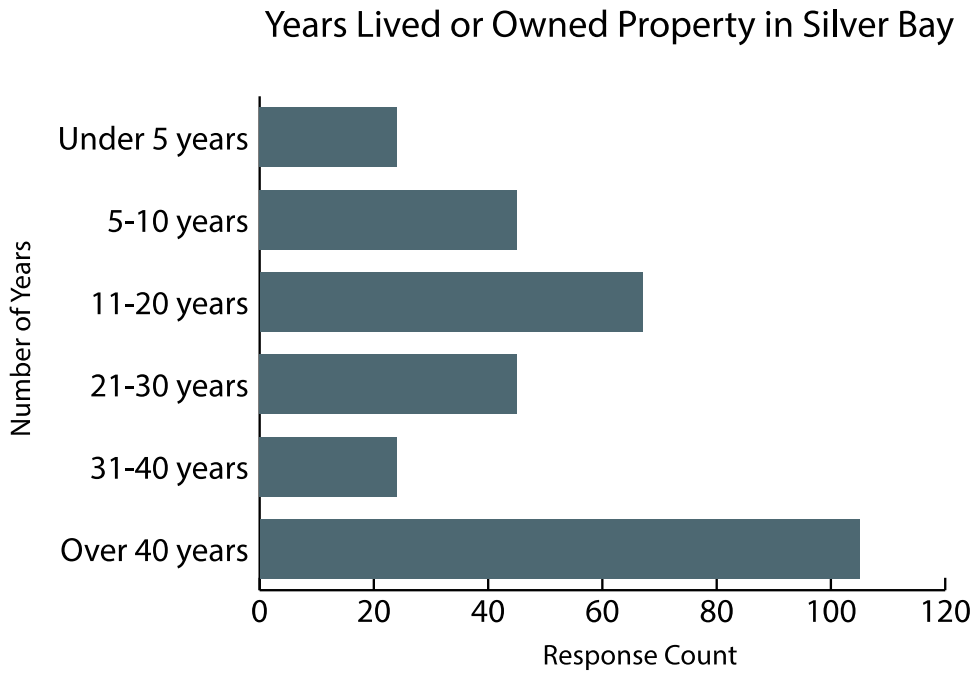
Answer Options	Response Percent	Response Count
Homestead Property Owner	86.2%	269
Seasonal Property Owner	8.65%	27
Renter in an Apartment	0.0%	0
Renter in a Single Family Home	3.21%	10
Other (please specify)	1.92%	6
	Answered	**312**
	Skipped	**0**



Question 2

How many years have you lived or owned property in Silver Bay? (check one)

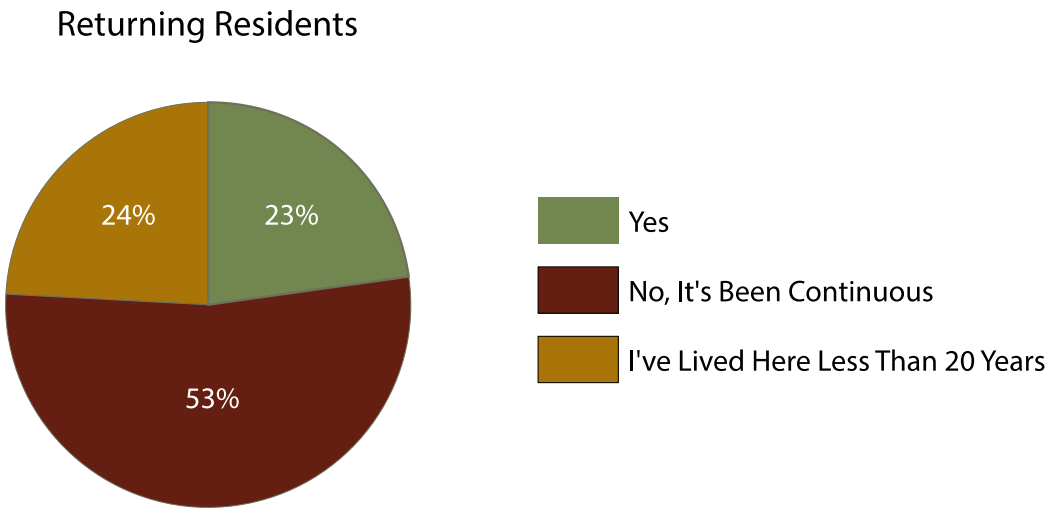
Answer Options	Response Percent	Response Count
Under 5 years	7.74%	24
5-10 years	14.52%	45
11-20 years	21.61%	67
21-30 years	14.52%	45
31-40 years	7.74%	24
Over 40 years	33.87%	105
	Answered	**310**
	Skipped	**2**



Question 3

If you have lived in Silver Bay for more than 20 years, did you move away and come back?

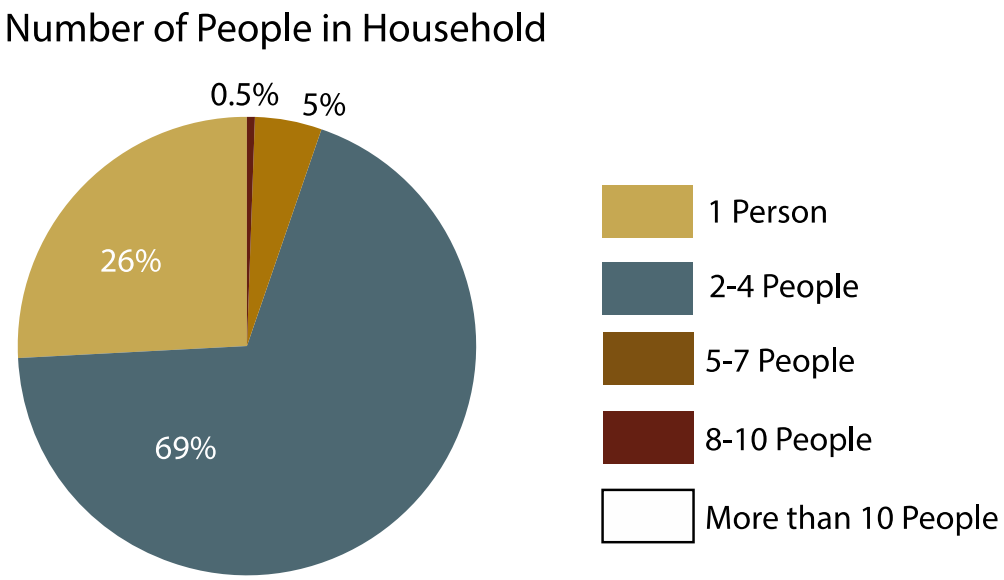
Answer Options	Response Percent	Response Count
Yes	23.08%	60
No, it's been continuous	53.08%	138
I've lived here less than 20 years	23.85%	62
	Answered	**260**
	Skipped	**52**



Question 4

How many people live in your household? (check one)

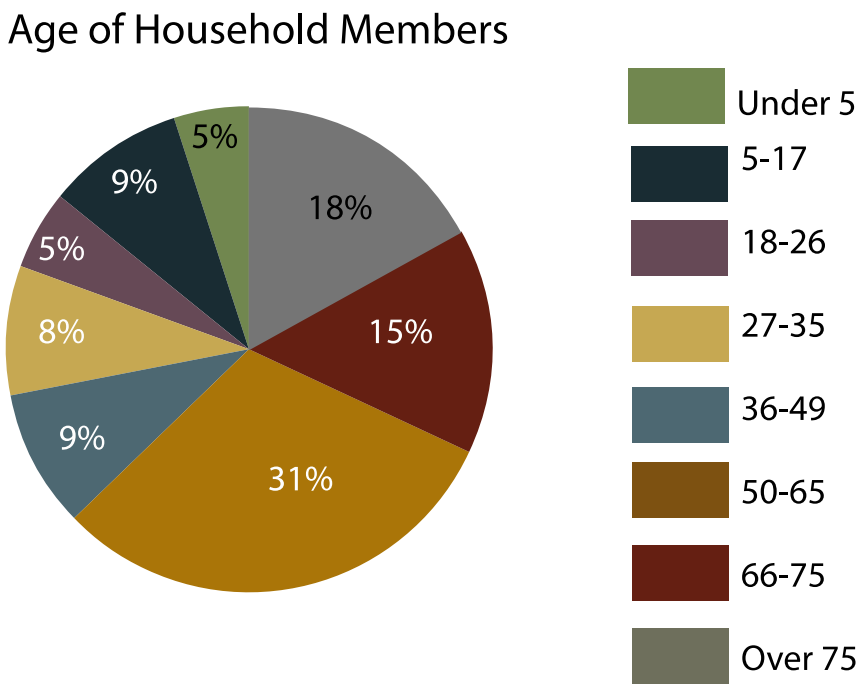
Answer Options	Response Percent	Response Count
1	25.65%	79
2-4	68.83%	212
5-7	4.87%	15
8-10	0.65%	2
More than 10	0.0%	0
	Answered	**308**
	Skipped	**4**



Question 5

Check which age groups your household has at least one person.
(Multiple selections per response)

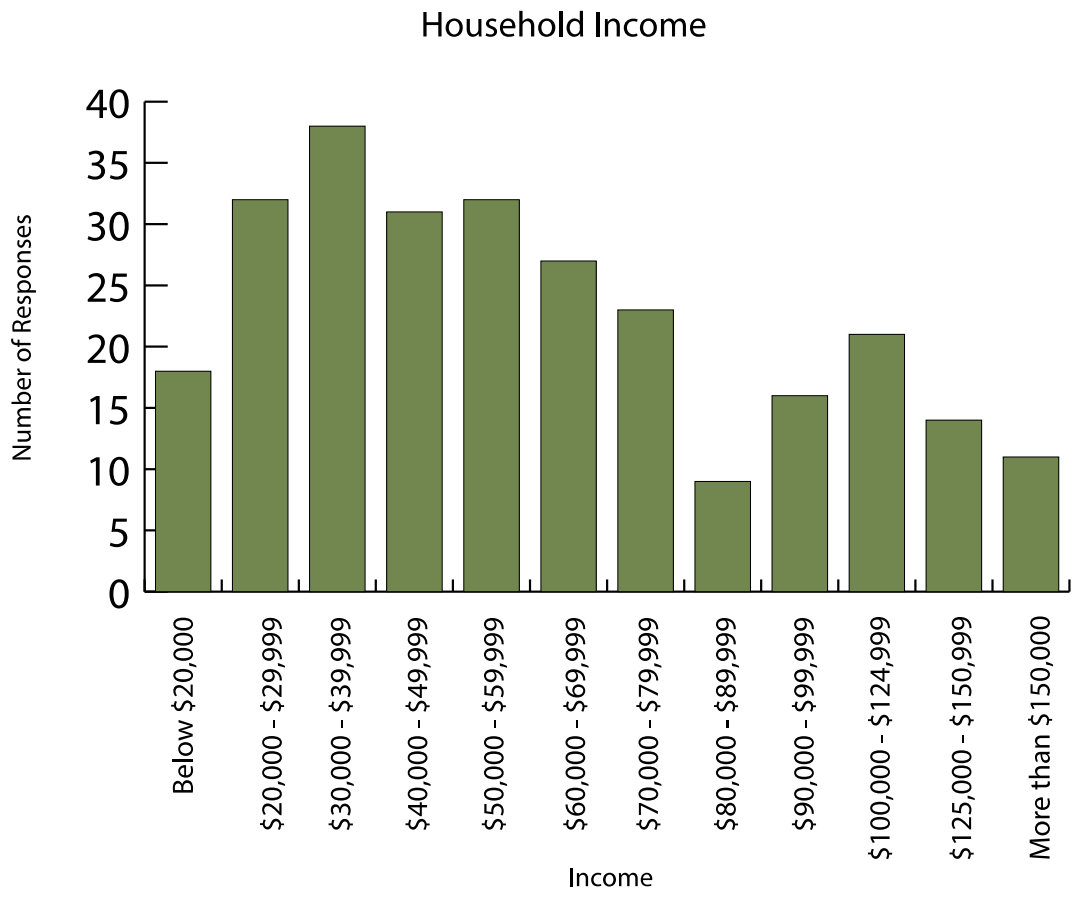
Answer Options	Response Percent	Response Count
Under 5	4.98%	22
5-17	9.05%	40
18-26	5.20%	23
27-35	8.60%	38
36-49	9.28%	41
50-65	30.77%	136
66-75	14.93%	66
Over 75	17.19%	76
	Answered	**309 (442)**
	Skipped	**3**



Question 6

What is your household gross income of all who are living with you?

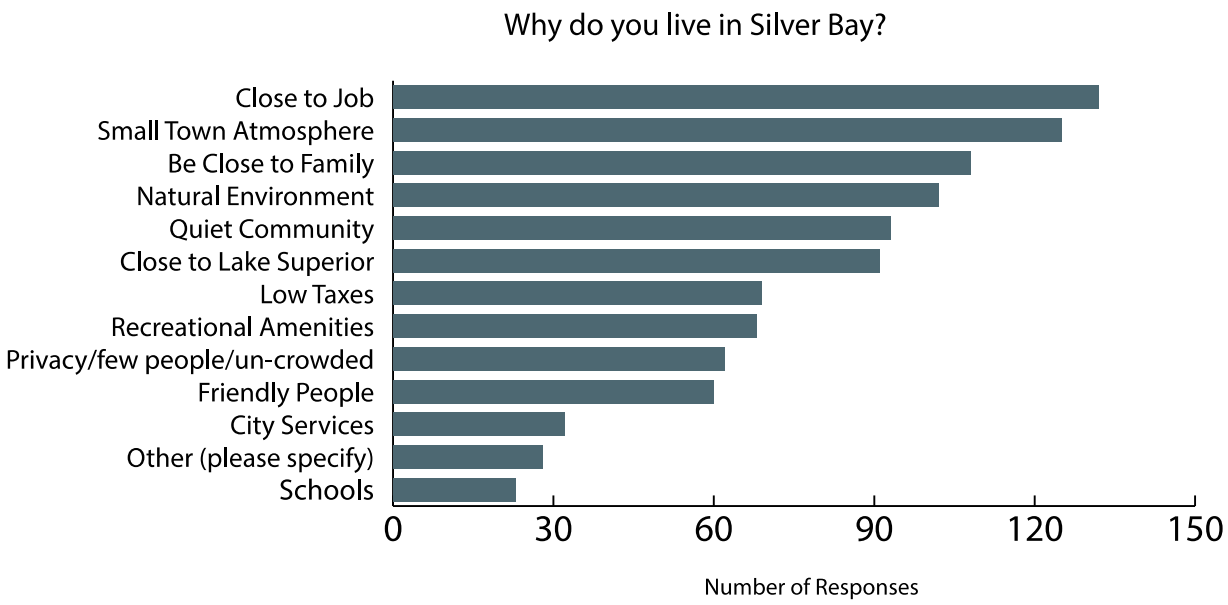
Answer Options	Response Percent	Response Count
Below $20,000	6.62%	18
$20,000 - $29,999	11.76%	32
$30,000 - $39,999	13.97%	38
$40,000 - $49,999	11.40%	31
$50,000 - $59,999	11.76%	32
$60,000 - $69,999	9.93%	27
$70,000 - $79,999	8.46%	23
$80,000 - $89,999	3.31%	9
$90,000 - $99,999	5.88%	16
$100,000 - $124,999	7.72%	21
$125,000 - $150,000	5.15%	14
More than $150,000	4.04%	11
	Answered	**272**
	Skipped	**40**



Question 7

Select the main reasons why you moved to, or continue to live, in Silver Bay (select up to 3).

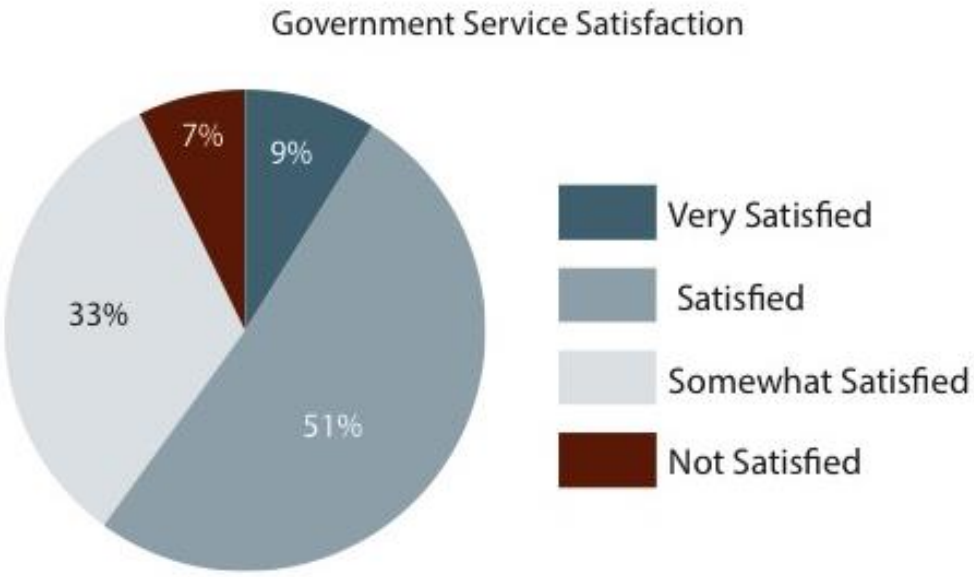
Answer Options	Response Percent	Response Count
Quiet Community	9.37%	93
Close to Job	13.29%	132
Schools	2.32%	23
Natural Environment	10.27%	102
Low Taxes	6.95%	69
Friendly People	6.04%	60
Recreational Amenities	6.85%	68
City Services	3.22%	32
Close to Lake Superior	9.16%	91
Privacy/few people/un-crowded	6.24%	62
Small Town Atmosphere	12.59%	125
Be Close to Family	10.88%	108
Other (please specify)	2.82%	28
	Answered	**450 (993)**
	Skipped	**3**



Question 8

Overall, how satisfied are you with your city government services?

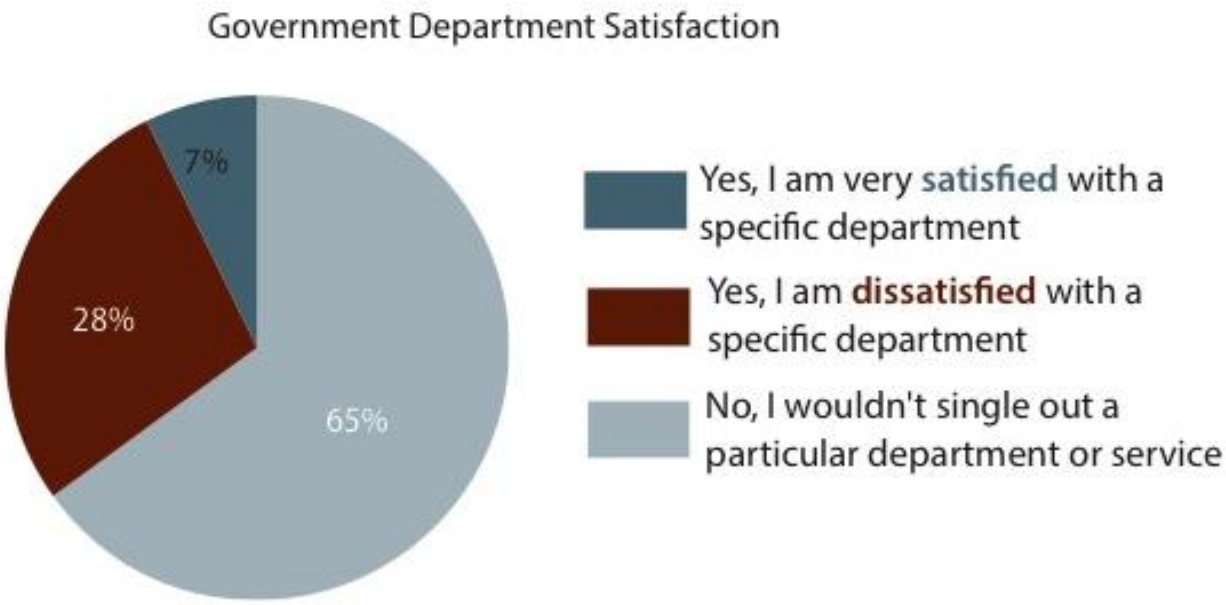
Answer Options	Response Percent	Response Count
Not Satisfied	7.17%	22
Somewhat Satisfied	32.57%	100
Satisfied	51.14%	157
Very Satisfied	9.12%	28
	Answered	**307**
	Skipped	**5**



Question 9

Is there a particular city government department or service with which you are not satisfied or very satisfied?

Answer Options	Response Percent	Response Count
No, I wouldn't single out a particular department or service	65.28%	188
Yes, I am dissatisfied with a specific department	27.43%	79
Yes, I am very satisfied with a specific department	7.29%	21
	Answered	**288**
	Skipped	**24**



Question 10

What government department or service are you particularly dissatisfied with?

Answered	**78**
Skipped	**234**

Answers reviewed but withheld to maintain anonymity

Question 11

What government department or service are you very satisfied with?

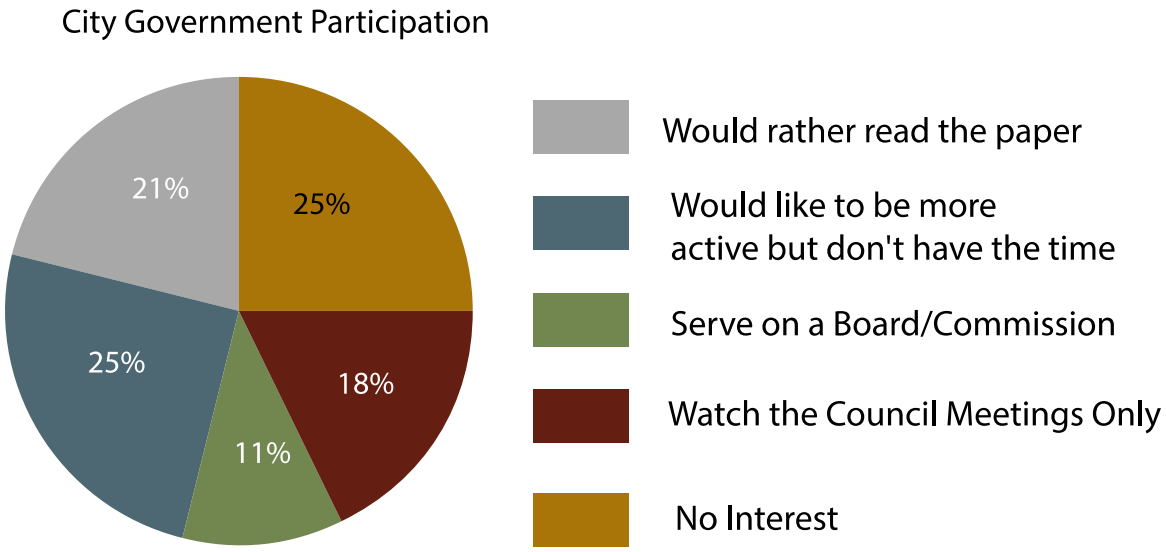
Answered	**21**
Skipped	**291**

Answers reviewed but withheld to maintain anonymity

Question 12

How active is your participation in City government?

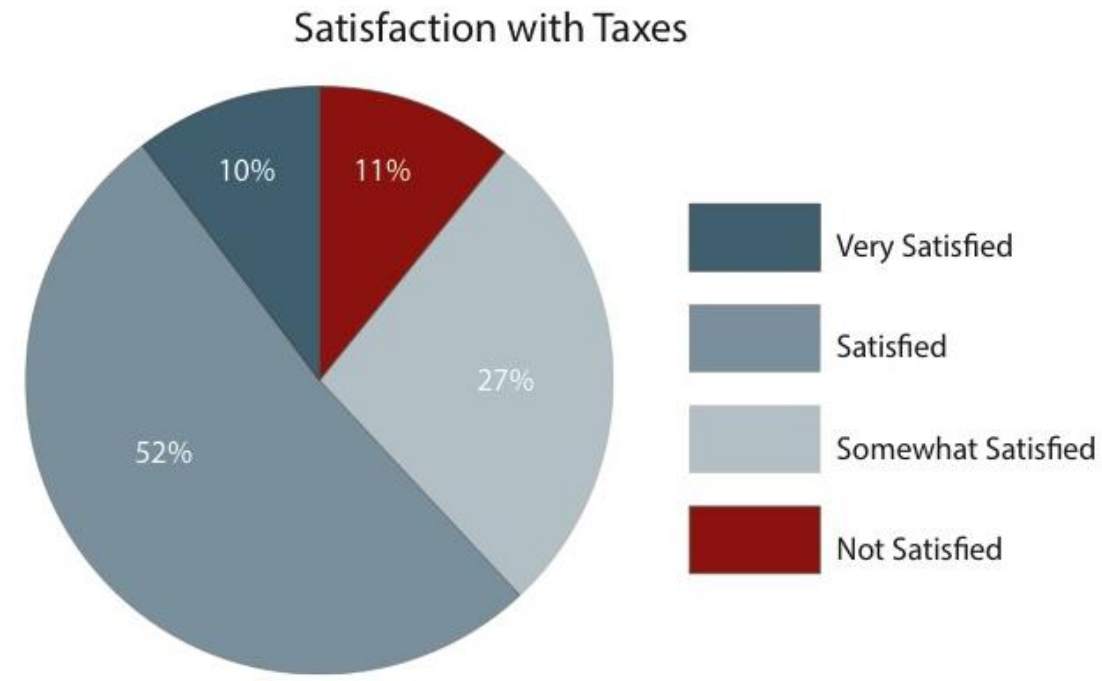
Answer Options	Response Percent	Response Count
No Interest	24.91%	71
Watch the Council meetings only	18.25%	52
Serve on a Board/Commission	10.88%	31
Would like to be more active but don't have time	25.26%	72
Would rather read the paper	20.70%	59
	Answered	**285**
	Skipped	**27**



Question 13

How satisfied are you with your taxes when compared to the City services that you receive?

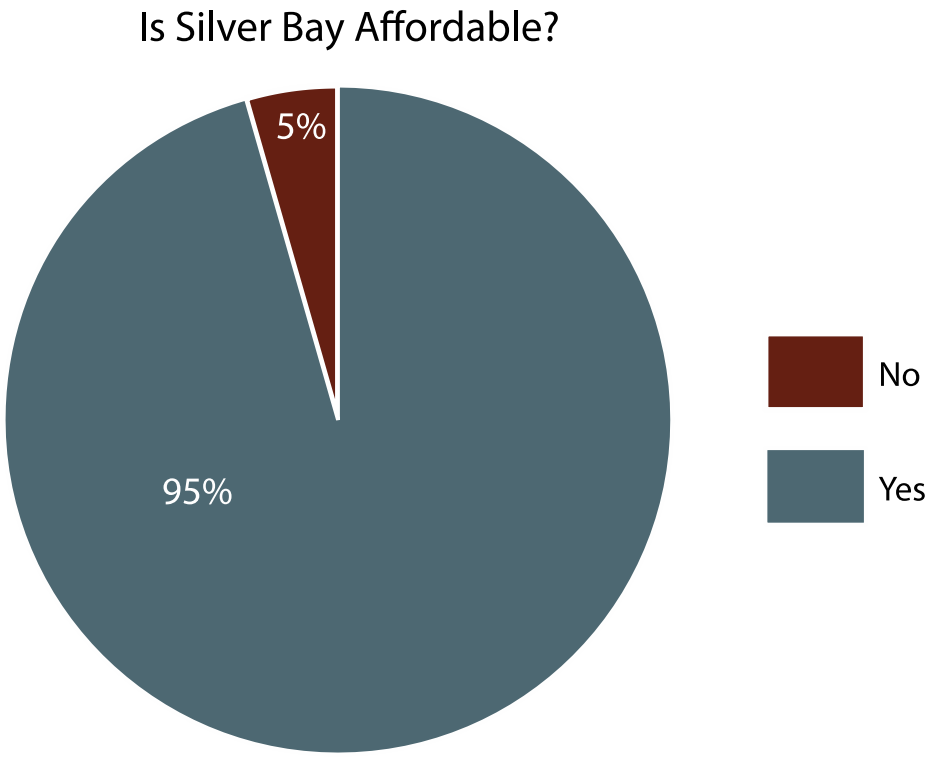
Answer Options	Response Percent	Response Count
Not Satisfied	10.93%	33
Somewhat Satisfied	27.15%	82
Satisfied	51.66%	156
Very Satisfied	10.26%	31
	Answered	**302**
	Skipped	**10**



Question 14

Do you view that housing in Silver Bay is affordable?

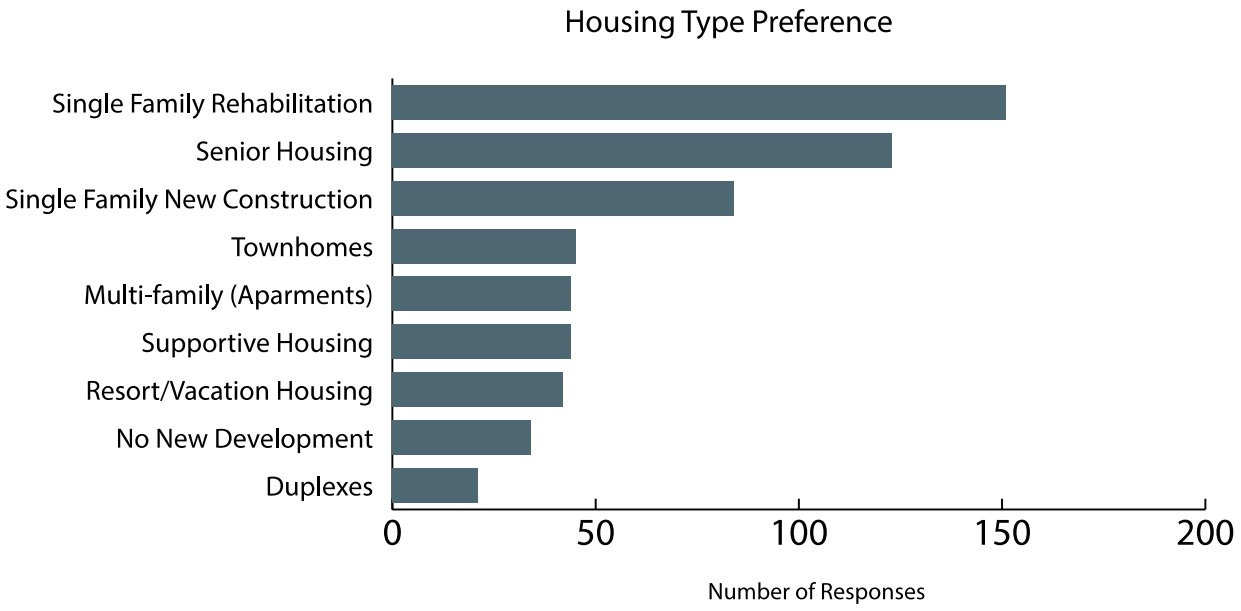
Answer Options	Response Percent	Response Count
Yes	95.58%	281
No	4.42%	14
	Answered	**294**
	Skipped	**18**



Question 15

Which type of housing would you like to see more of in Silver Bay? (Select multiple answers)

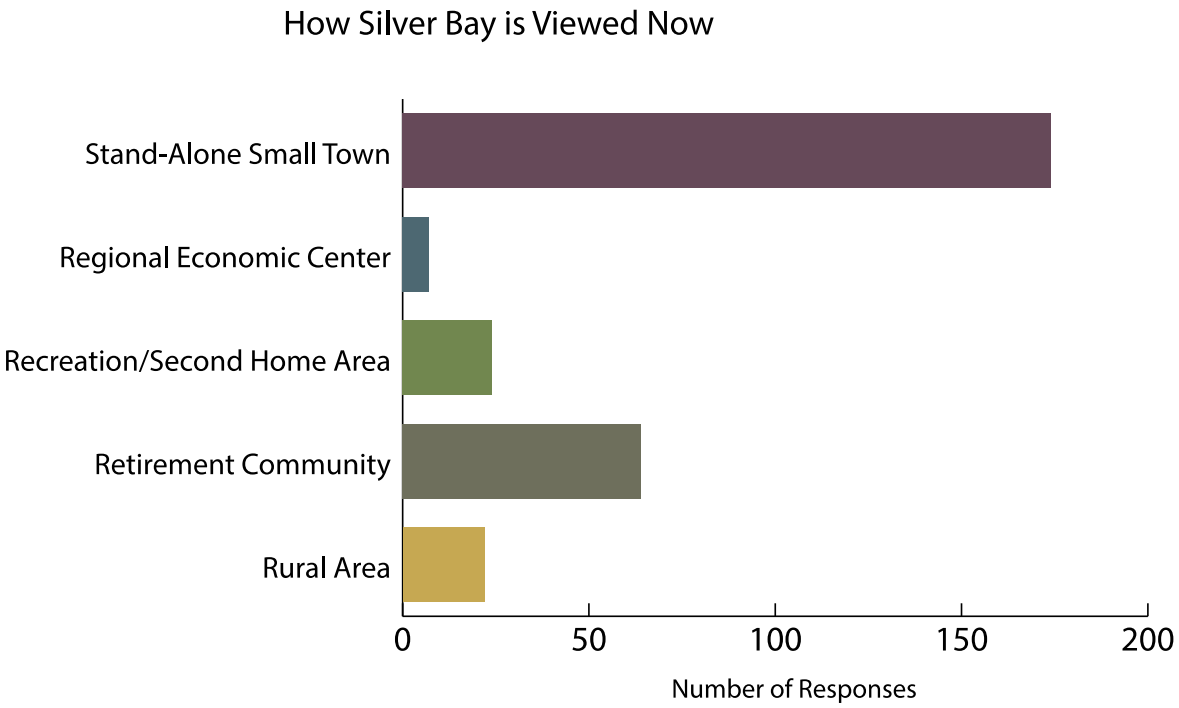
Answer Options	Response Percent	Response Count
Single Family Rehabilitation	25.68%	151
Single Family New Construction	14.29%	84
Senior Housing	20.92%	123
Supportive Housing	7.48%	44
Townhomes	7.65%	45
Duplexes	3.57%	21
Resort/Vacation Housing	7.14%	42
No New Development	5.78%	34
Multi-family (Apartments)	7.48%	44
	Answered	**286 (588)**
	Skipped	**26**



Question 16

How do you primarily view Silver Bay today?

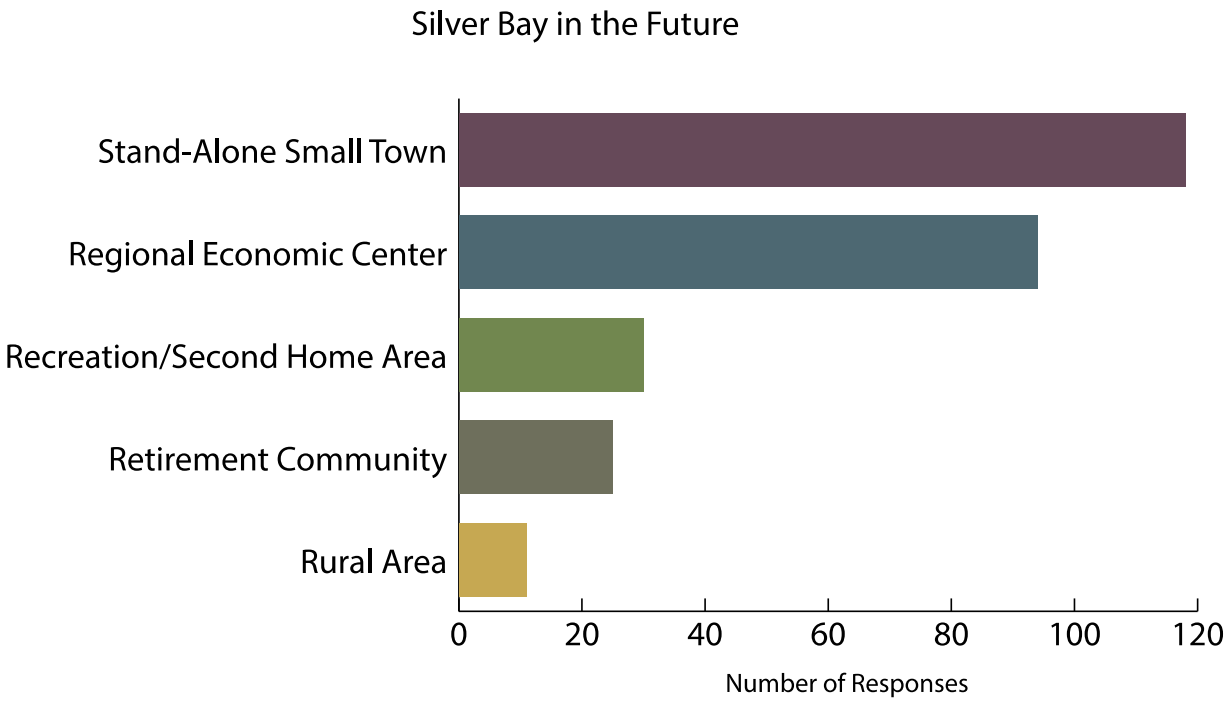
Answer Options	Response Percent	Response Count
Stand-Alone Small Town	59.79%	174
Regional Economic Center	2.41%	7
Recreation/Second Home Area	8.25%	24
Retirement Community	21.99%	64
Rural Area	7.56%	22
	Answered	**291**
	Skipped	**21**



Question 17

In the future, I think Silver Bay should become or remain one of the following:

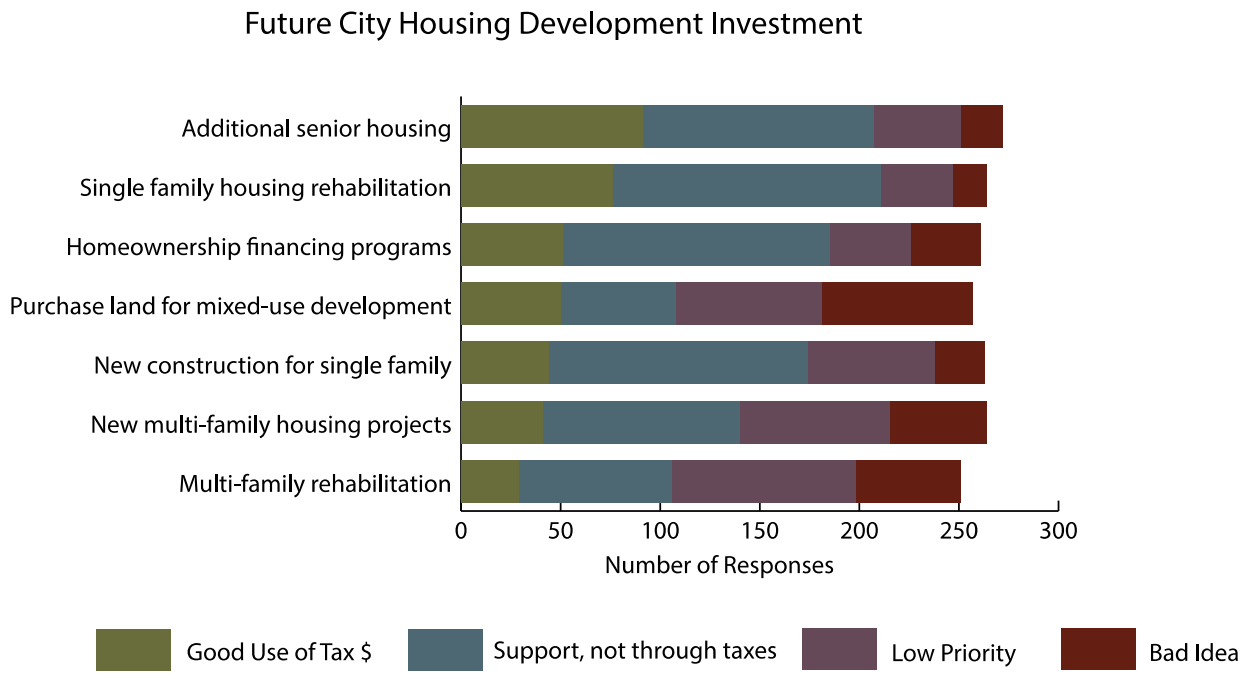
Answer Options	Response Percent	Response Count
Stand-Alone Small Town	42.45%	118
Regional Economic Center	33.81%	94
Recreation/Second Home Area	10.79%	30
Retirement Community	8.99%	25
Rural Area	3.96%	11
	Answered	**278**
	Skipped	**34**



Question 18

How should the City invest in housing developments in the future?

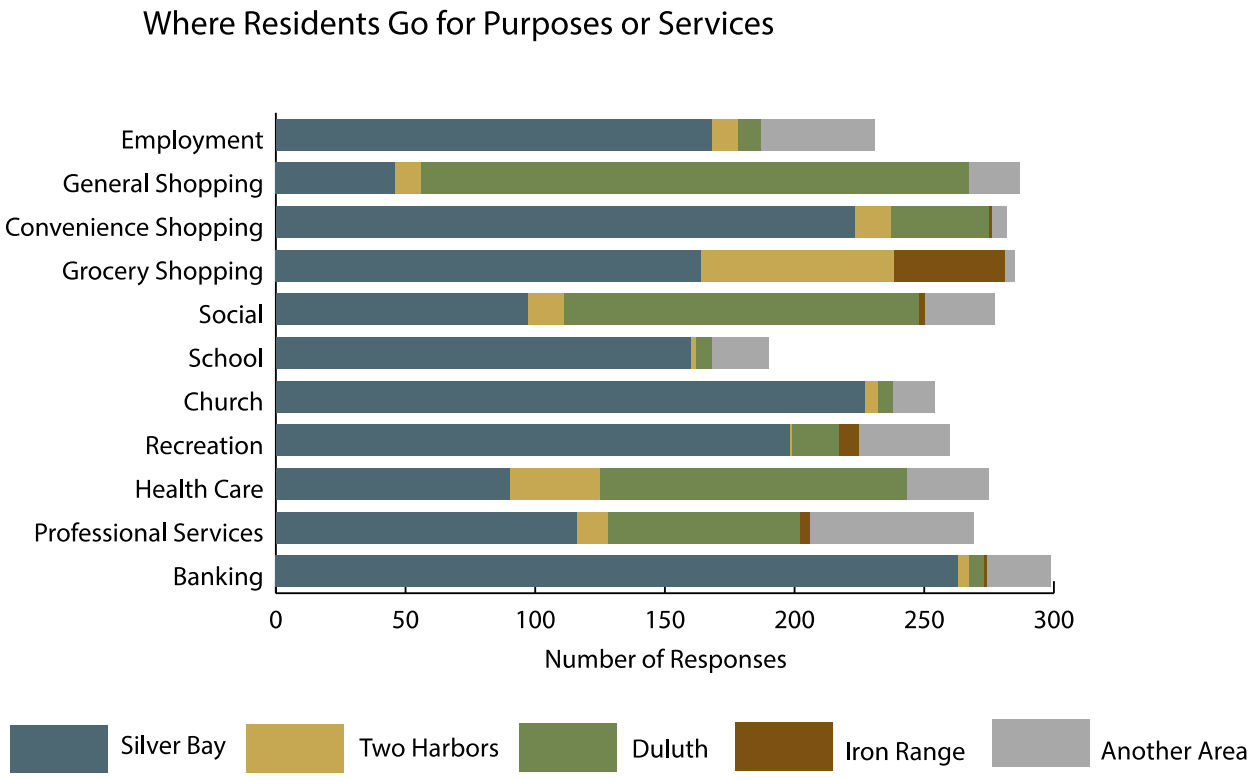
Answer Options	Good Use of Tax $	Support but not through taxes	Low priority for city action	Bad Idea	Response Count
Support single family housing rehabilitation programs	76	135	36	17	264
Support new construction single family housing programs	44	130	64	25	263
Support new multi-family housing projects (townhomes, apts, etc.)	41	99	75	49	264
Support multi-family rehabilitation programs	29	77	92	53	251
Support homeownership financing programs	51	134	41	35	261
Support additional senior housing	91	116	44	21	272
Purchase land for new housing and mixed-use development	50	58	73	76	257
				Answered	**285**
				Skipped	**27**



Question 19

Where does your household primarily go for the following purposes or services?

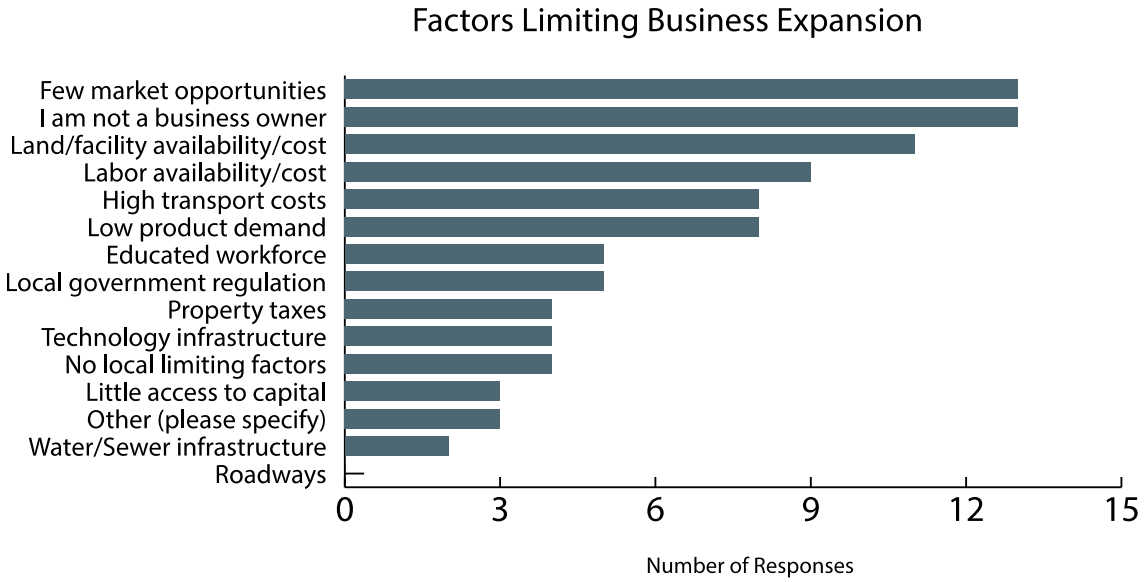
Answer Options	Silver Bay Area	Two Harbors Area	Duluth Area	Iron Range Area	Another Area	Response Count
Employment	168	10	9	0	44	231
General shopping (clothes, hardware, etc.)	46	10	211	0	20	287
Convenience shopping	223	14	38	1	6	282
Grocery shopping	164	74	43	0	4	285
Social (restaurants, bars, movies, entertainment services)	97	14	137	2	27	277
School	160	2	6	0	22	190
Church	227	5	6	0	16	254
Recreation	198	1	18	8	35	260
Health Care	90	35	118	0	32	275
Professional Services (legal, tax, etc.)	116	12	74	4	63	269
Banking	263	4	6	1	25	299
					Answered	**304**
					Skipped	**8**



Question 20

If you are a business owner, what local factors limit your ability to expand in Silver Bay? This includes home-based businesses. (Multiple selections/response)

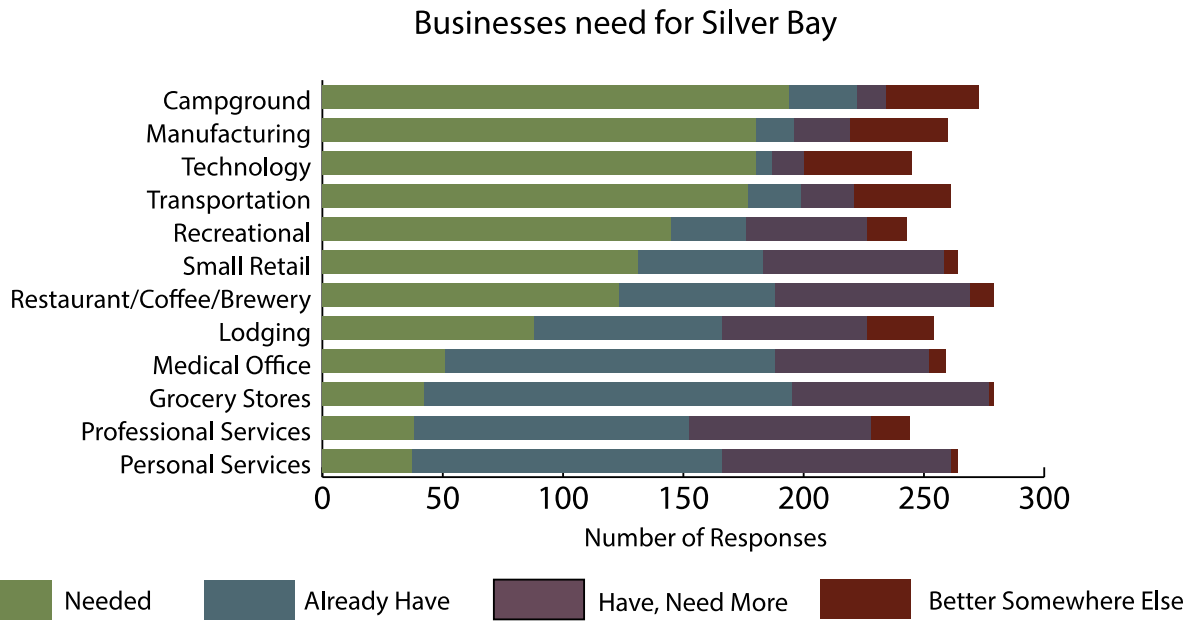
Answer Options	Response Percent	Response Count
Few market opportunities	28.89%	13
High transport costs	17.78%	8
Educated workforce	11.11%	5
Property taxes	8.89%	4
Roadways	0.0%	0
Little access to capital	6.67%	3
Labor availability/cost	20.00%	9
Water/Sewer infrastructure	4.44%	2
Technology infrastructure	8.89%	4
Land/facility availability/cost	24.44%	11
Local government regulation	11.11%	5
Low product demand	17.78%	8
No local limiting factors	8.89%	4
I am not a business owner	28.89%	13
Other (please specify)	6.67%	3
	Answered	**45**
	Skipped	**267**



Question 21

Identify the types of business that are needed for Silver Bay? (Multiple selections/response)

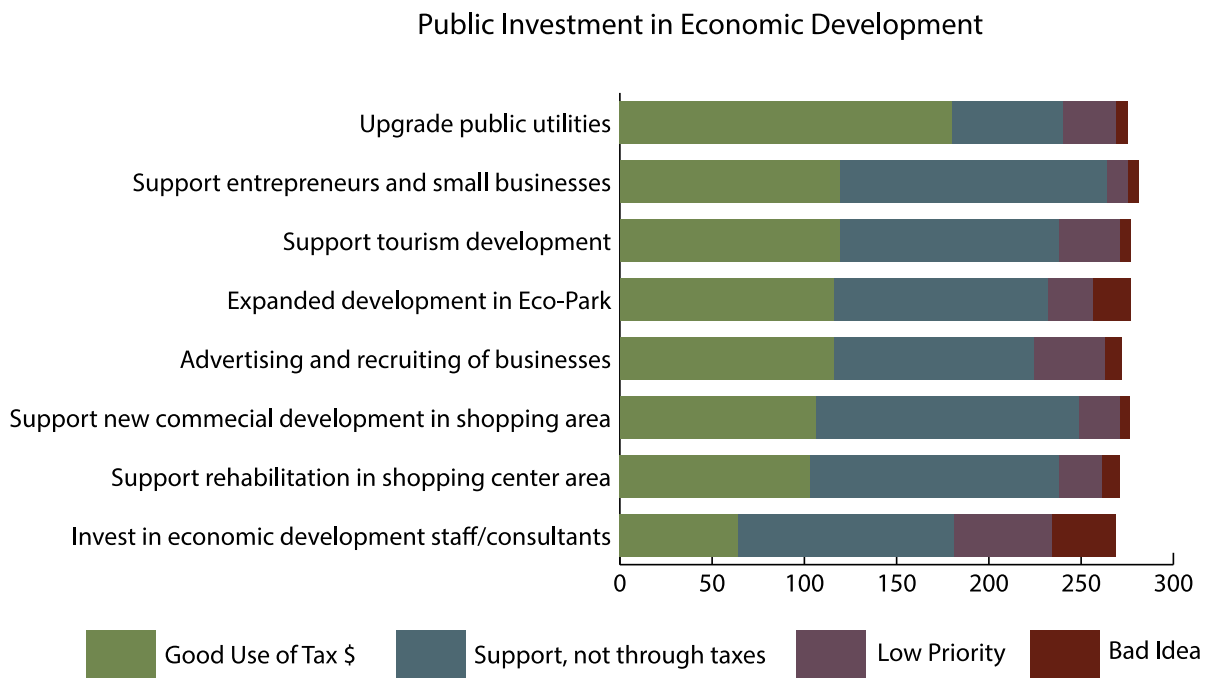
Answer Options	Needed	Not needed - already have one	Have this business, but need more	Better suited for somewhere else	Response Count
Small Retail Shopping	131	52	75	6	264
Grocery Stores	42	153	82	2	279
Restaurant/Coffee Shop/Microbrewery	123	65	81	10	279
Personal Services (salon, auto, etc.)	37	129	95	3	264
Campground	194	28	12	39	273
Lodging/Bed & Breakfast	88	78	60	28	254
Recreational Oriented Businesses	145	31	50	17	243
Medical Office	51	137	64	7	259
Professional Services (legal, accountant, etc.)	38	114	76	16	244
Transportation Services (taxi, shuttle)	177	22	22	40	261
Technology Businesses	180	7	13	45	245
Manufacturing Oriented Businesses	180	16	23	41	260
Other (please specify)					17
				Answered	**299**
				Skipped	**13**



Question 22

How should the City use public dollars to financially invest in economic development?

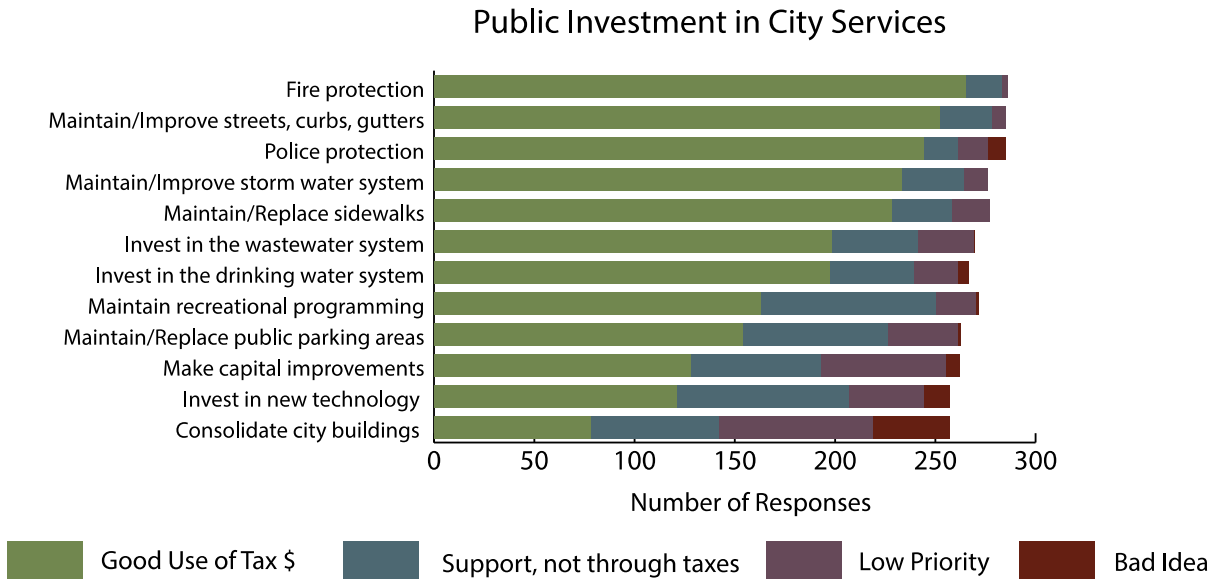
Answer Options	Good use of tax $	Support but not through taxes	Low priority for city action	Bad idea	Response Count
Support new commercial development in shopping center area	106	143	22	5	276
Support entrepreneurs and new small businesses	119	145	11	6	281
Support rehabilitation in shopping center area	103	135	23	10	271
Support expanded development, infrastructure, in Highway 61 Eco-Park	116	116	24	21	277
Support tourism development	119	119	33	6	277
Upgrade public utilities	180	60	29	6	275
Invest in advertising, recruitment of businesses	116	108	39	9	272
Invest in economic development staff/consultants	64	117	53	35	269
				Answered	**292**
				Skipped	**20**



Question 23

How should the City use public dollars to financially invest in the services it provides?

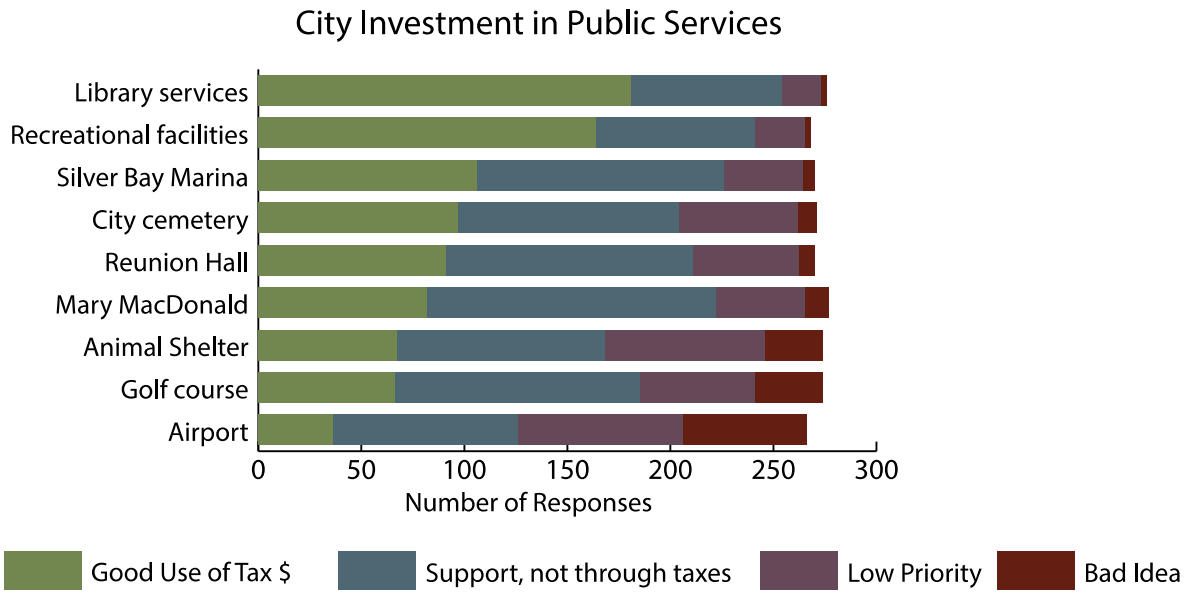
Answer Options	Good use of tax $	Support but not through taxes	Low priority for city	Bad idea	Response Count
Police protection	244	17	15	9	285
Fire protection	265	18	3	0	286
Maintain recreational programming	163	87	20	2	272
Maintain/Improve storm water system	233	31	12	0	276
Maintain/Improve streets, curbs, gutters	252	26	7	0	285
Maintain/Replace sidewalks	228	30	19	0	277
Maintain/Replace public parking areas	154	72	35	2	263
Invest in new technology to improve city services	121	86	37	13	257
Consolidate city buildings into a single Government Center (return other buildings/lots to private sector/tax base)	78	64	77	38	257
Make capital improvements to city buildings, equipment	128	65	62	7	262
Invest in the wastewater (sewer) system	198	43	28	1	270
Invest in the drinking water system	197	42	22	6	267
				Answered	**292**
				Skipped	**20**



Question 24

How should the City use public dollars to maintain, improve, or expand the following services?

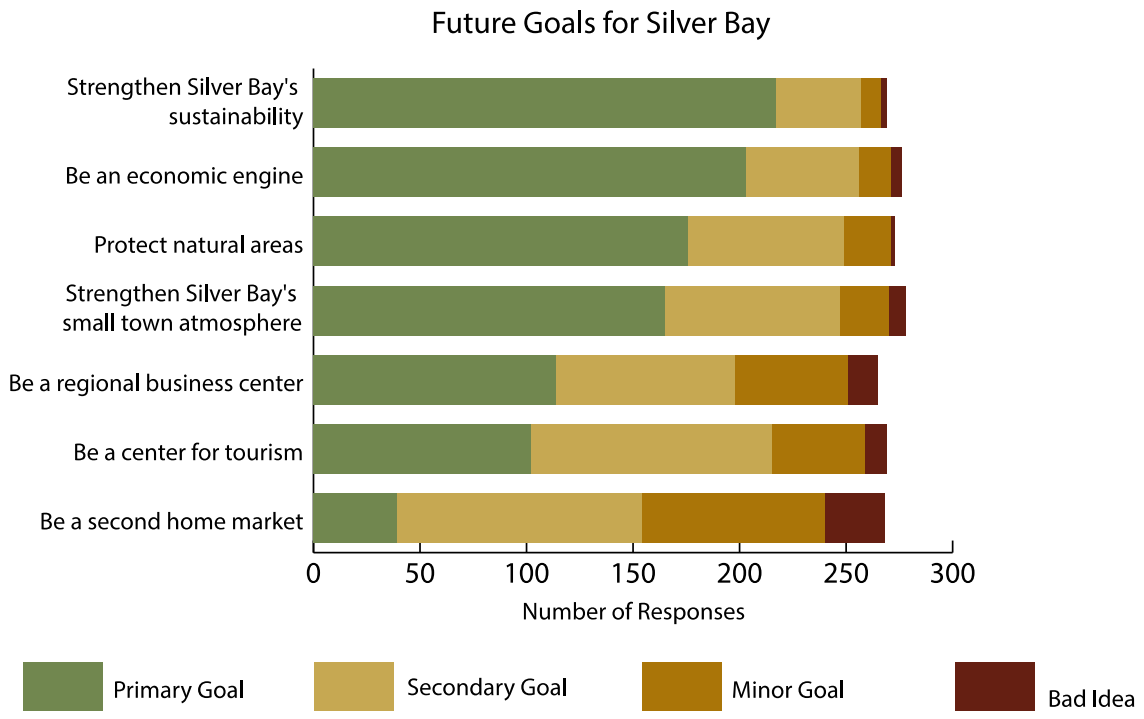
Answer Options	Good use of tax $	Support but not through taxes	Low priority for city	Bad idea	Response Count
The golf course	66	119	56	33	274
The animal shelter	67	101	78	28	274
The city cemetery	97	107	58	9	271
The Reunion Hall space	91	120	51	8	270
Mary MacDonald Business Center	82	140	43	12	277
Silver Bay Marina	106	120	38	6	270
Library Services	181	73	19	3	276
Recreational facilities and parks	164	77	24	3	268
The municipal airport	36	90	80	60	266
Other (please specify)					19
				Answered	**286**
				Skipped	**26**



Question 25

Looking 20 years into the future, which of the following are goals that should be addressed by the City and placed into the comprehensive plan?

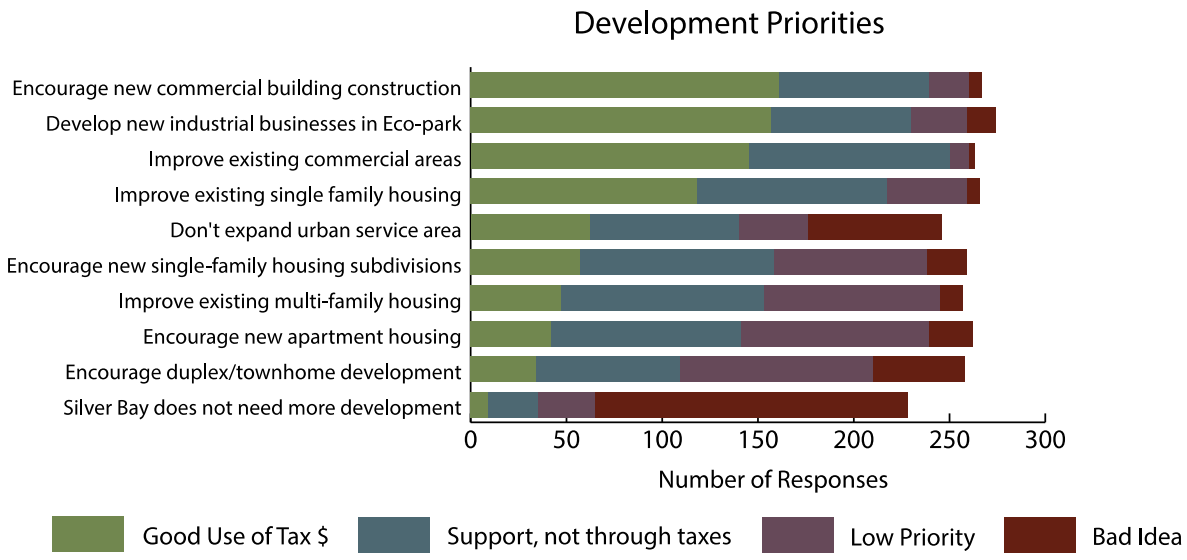
Answer Options	Primary Goal	Secondary Goal	Minor Goal	Bad Idea	Response Count
Be a center for tourism	102	113	44	10	269
Be a regional business center	114	84	53	14	265
Protect natural areas and water quality	176	73	22	2	273
Become a "second home" market for visitors	39	115	86	28	268
Strengthen Silver Bay's small town atmosphere	165	82	23	8	278
Strengthen Silver Bay's sustainability	217	40	9	3	269
Be an economic engine with living-wage jobs	203	53	15	5	276
Write an alternative long-term primary goal:					27
				Answered	**286**
				Skipped	**26**



Question 26

Over the next 20 years, what are development priorities the City of Silver Bay should encourage?

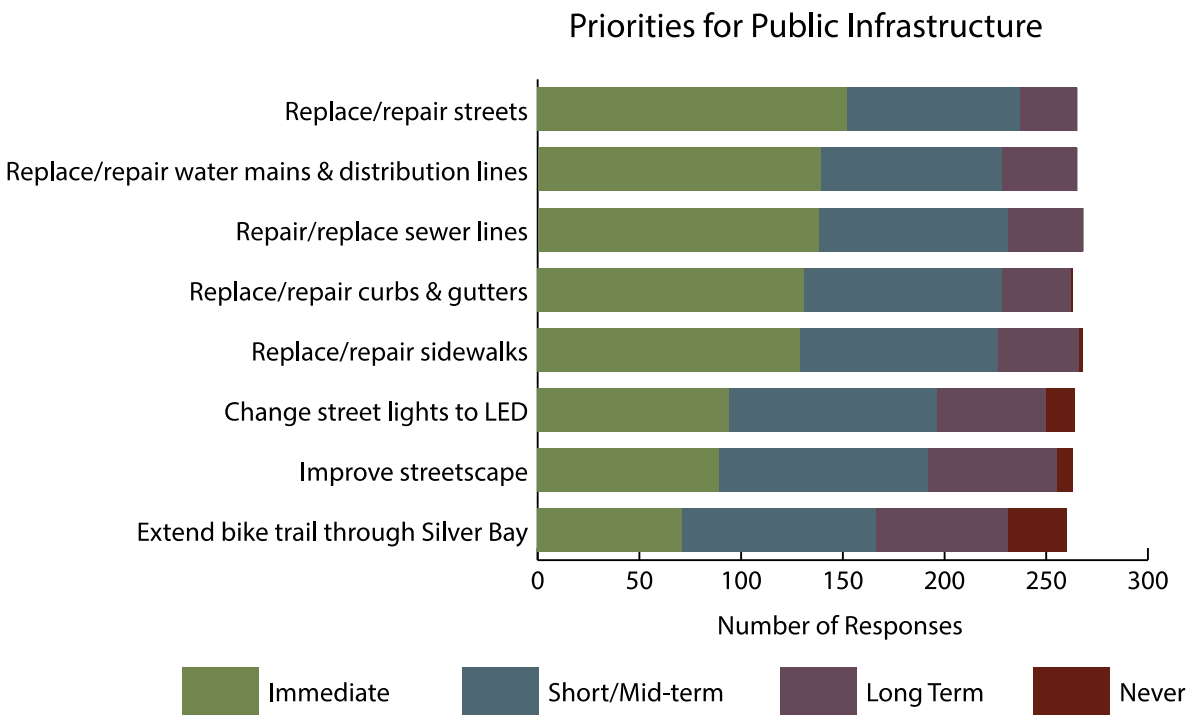
Answer Options	High Priority	Mid Priority	Low Priority	Bad Idea	Response Count
Improve existing commercial areas	145	105	10	3	263
Encourage new commercial building construction	161	78	21	7	267
Develop new industrial businesses in Eco-park	157	73	29	15	274
Encourage new single-family housing subdivisions	57	101	80	21	259
Encourage new apartment housing	42	99	98	23	262
Improve existing single family housing	118	99	42	7	266
Improve existing multi-family housing	47	106	92	12	257
Encourage duplex/townhome development	34	75	101	48	258
Don't expand urban service area; keep new development in existing developed area	62	78	36	70	246
Silver Bay does not need more development	9	26	30	163	238
Other (please specify)					15
				Answered	**280**
				Skipped	**32**



Question 27

Public Infrastructure: Looking out 20 years, list what you believe should be the City of Silver Bay's immediate, short-term, and long-term priorities in public facilities or services.

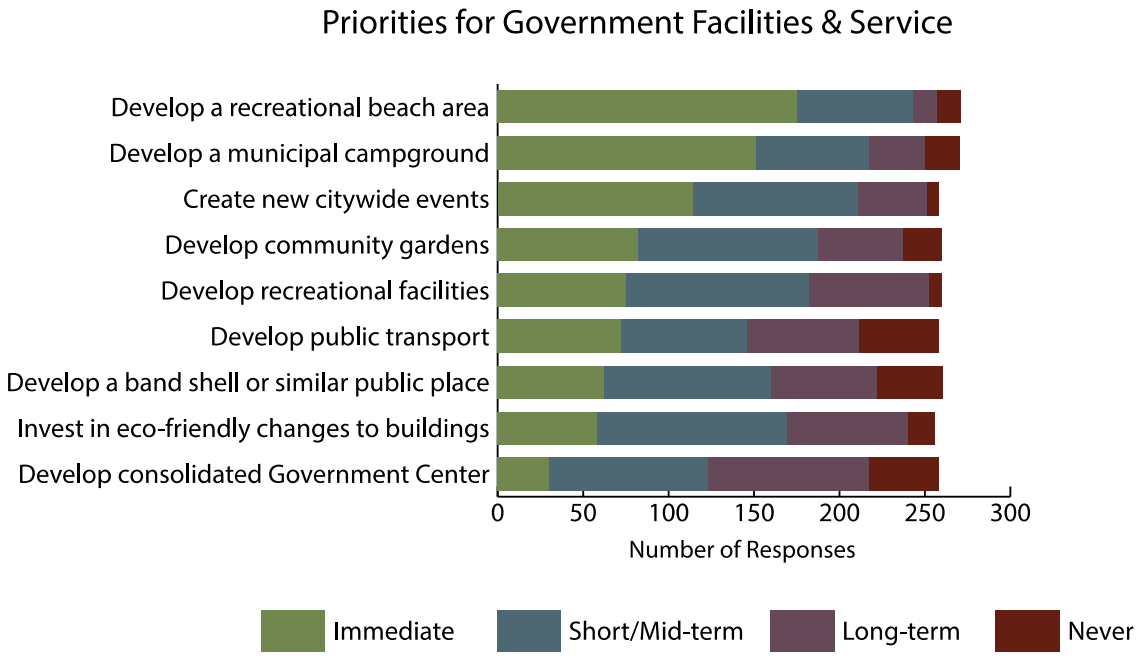
Answer Options	Immediate (up to 5 years)	Short/Mid-term (5-10 years)	Long-term (10-20 years)	Never	Response Count
Replace/Repair curbs and gutters	131	97	34	1	263
Replace/Repair streets	152	85	28	0	265
Replace/Repair water mains and distribution lines	139	89	37	0	265
Replace/Repair sewer lines	138	93	37	0	268
Replace/Repair sidewalks	129	97	40	2	268
Extend bike trail through Silver Bay	71	95	65	29	260
Improve the streetscape (the curb appeal) of the City	89	103	63	8	263
Change street light illumination to LED	94	102	54	14	264
				Answered	**282**
				Skipped	**30**



Question 28

New Government Facilities or Services: Looking out 20 years, list what you believe should be the City of Silver Bay's immediate, short-term, and long-term priorities in public facilities or services.

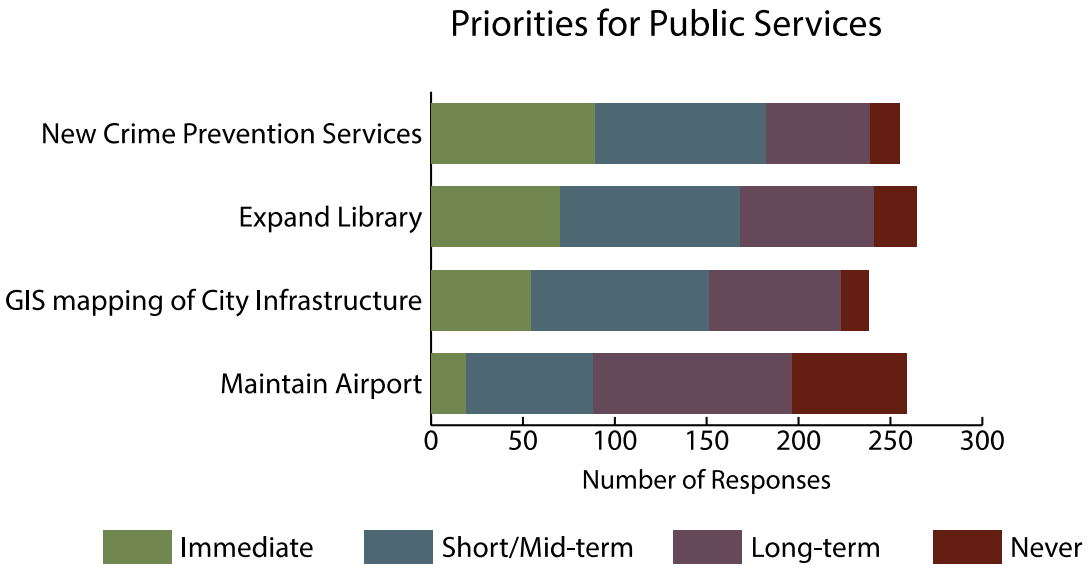
Answer Options	Immediate (up to 5 years)	Short/Mid-term (5-10 years)	Long-term (10-20 years)	Never	Response Count
Develop consolidated Government Center	30	93	94	41	258
Develop new recreational facilities	75	107	70	8	260
Develop municipal campground	151	66	33	20	270
Develop a recreational beach area	175	68	14	14	271
Create new citywide events	114	97	40	7	258
Develop community gardens	82	105	50	23	260
Develop a band shell or similar public place	62	98	62	38	260
Develop public transportation	72	74	65	47	258
Invest in eco-friendly changes to buildings	58	111	71	16	256
				Answered	**276**
				Skipped	**36**



Question 29

Public Services: Looking out 20 years, list what you believe should be the City of Silver Bay's immediate, short-term, and long-term priorities in public facilities or services.

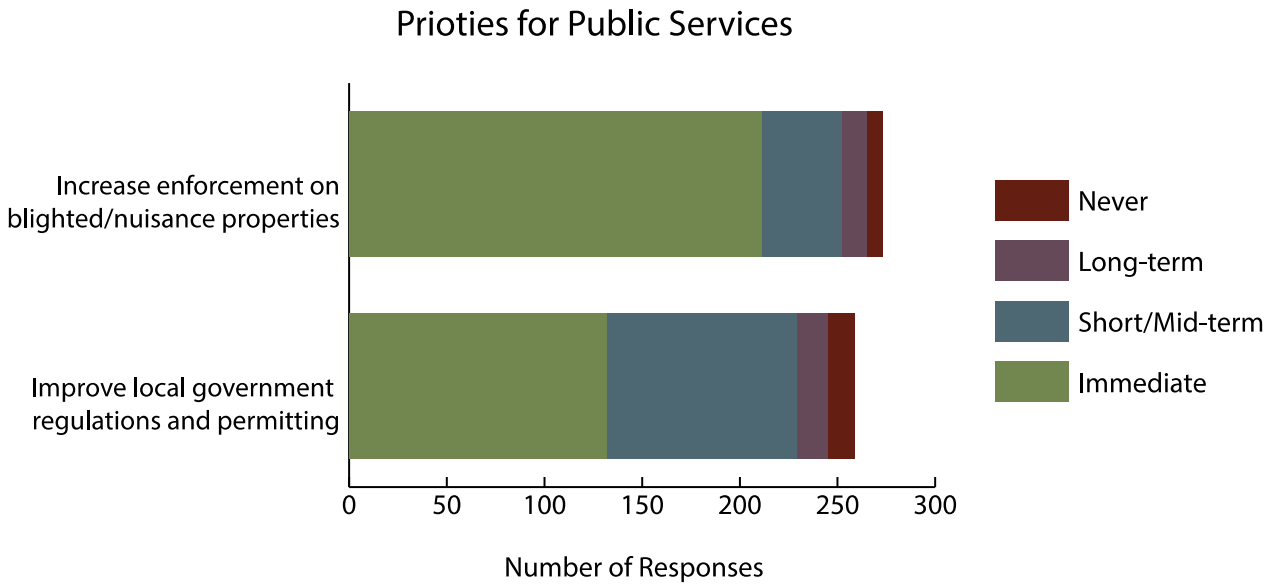
Answer Options	Immediate (up to 5 years)	Short/Mid-term (5-10 years)	Long-term (10-20 years)	Never	Response Count
Expand library	70	98	73	23	264
Maintain airport	19	69	108	63	259
GIS mapping of City infrastructure	54	97	72	15	238
New crime prevention services	89	93	57	16	255
				Answered	**274**
				Skipped	**38**



Question 30

Regulation: Looking out 20 years, list what you believe should be the City of Silver Bay's immediate, short-term, and long-term priorities in public facilities or services.

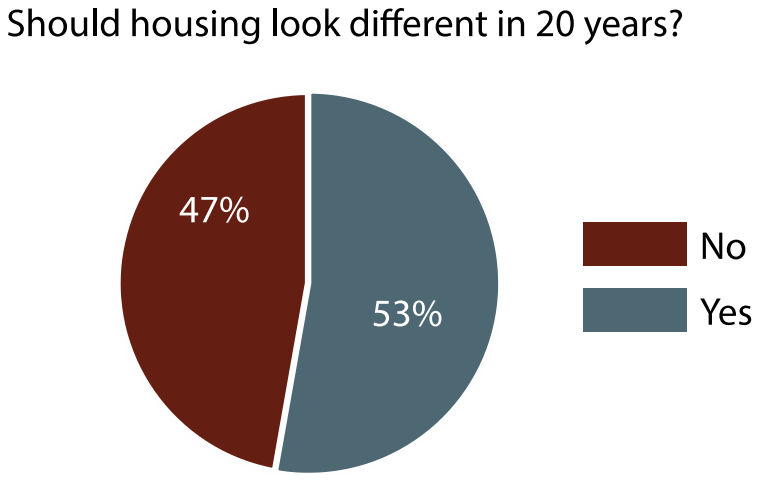
Answer Options	Immediate (up to 5 years)	Short/Mid-term (5-10 years)	Long-term (10-20 years)	Never	Response Count
Increase enforcement on blighted/nuisance properties	211	41	13	8	273
Improve local government regulations and permitting	132	97	16	14	259
				Answered	**279**
				Skipped	**33**



Question 31

Do you think the type of households and people living in Silver Bay in 20 years should be significantly different from the community today?

Answer Options	Response Percent	Response Count
Yes, the community should look different	52.88%	147
No, the community should look mostly the same	47.12%	131
	Answered	**278**
	Skipped	**34**



Question 32

If you answered yes to the previous question, briefly describe the community you think will be in Silver Bay in 20 years.

Answered	**138**
Skipped	**174**

Answers reviewed but removed to maintain anonymity of response

Question 33

What suggestions or ideas do you have for improving Silver Bay over the next 20 years?

Answered	**189**
Skipped	**123**

Answers reviewed but removed to maintain anonymity of response

Question 34

What important issues to the future of Silver Bay were not included in this survey?

Answered	**103**
Skipped	**209**

Answers reviewed but removed to maintain anonymity of response

Question 35

Are you interested in serving on the steering committee to guide the direction of the City's future?

Answer Options	Response Percent	Response Count
Yes	12.20%	30
No	87.80%	216
	Answered Question	**246 66**

Answers reviewed but removed to maintain anonymity of response

Facility Condition Index Report

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1995	20	4	7,200	26,251	2016	34,357
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation 1995	30	3,163	12	37,952	2025	75,094
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1995	30	5	7,200	37,685	2025	74,566
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1995	30	1	7,200	6,234	2025	12,335
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1995	30	0	7,200	2,250	2025	4,452
A - Substructure	Structural Slab on Grade - Heavy Industrial - 1995	75	15	7,200	108,216		
B10 - Superstructure	Single-Story - Steel Framed Roof on Bearing Wall - 1995	75	6	7,200	42,984		
A - Substructure	Foundation Wall and Footings - No Basement - 1995	75	144	472	68,147		
B2010 - Exterior Walls	Metal Paneled Walls - Economy- 1995	60	8	11,328	92,663		
B30 - Roofing	Metal Roofing - Economy - 1995	50	9	7,200	64,310		

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 Hangar 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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
C3020 - Floor Finishes	Concrete - Sealed - 1995	5	1	6,696	7,217	2016	9,445
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1995	20	4	6,696	24,414	2016	31,952
C3020 - Floor Finishes	Concrete - Sealed - 1995	5	1	6,696	7,217	2021	11,883
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation 1995	30	3,163	6	18,976	2025	37,547
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1995	30	5	6,696	35,047	2025	69,346
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1995	30	1	6,696	5,797	2025	11,471
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1995	30	0	6,696	2,092	2025	4,140
C3020 - Floor Finishes	Concrete - Sealed - 1995	5	1	6,696	7,217	2026	14,950
C3020 - Floor Finishes	Concrete - Sealed - 1995	5	1	6,696	7,217	2031	18,810
A - Substructure	Structural Slab on Grade - Light Industrial - 1995	75	9	6,696	57,385		
B10 - Superstructure	Single-Story - Steel Framed Roof on Bearing Wall - 1995	75	6	6,696	39,975		
A - Substructure	Foundation Wall and Footings - No Basement - 1995	75	144	356	51,399		
B2010 - Exterior Walls	Metal Paneled Walls - Economy- 1995	60	8	8,544	69,890		
B30 - Roofing	Metal Roofing - Economy - 1995	50	9	6,696	59,809		

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
C3020 - Floor Finishes	Concrete - Sealed - Mechanical Rm 2008	5	1	132	142	2016	186
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish- 2008	10	1	4,320	5,184	2018	7,437
C3020 - Floor Finishes	VCT - Average - 12" x 12" - 2008	10	4	552	2,016	2018	2,893
D5033 - Telephone Systems	Telephone System - Light Density - 2008	10	2	816	1,518	2018	1,847
C3020 - Floor Finishes	Concrete - Sealed - Mechanical Rm 2008	5	1	132	142	2021	234
D2020 - Domestic Water Distribution	Water Heater - Gas - Comm (SF) - 2008	15	2	816	1,307	2023	2,359
E - Equipment and Furnishings	Kitchen Cabinets - Average - 2008	20	293	12	3,518	2025	6,962
C3020 - Floor Finishes	Concrete - Sealed - Mechanical Rm 2008	5	1	132	142	2026	295
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish- 2008	10	1	4,320	5,184	2028	11,773
C3020 - Floor Finishes	VCT - Average - 12" x 12" - 2008	10	4	552	2,016	2028	4,579
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan - 2008	20	0	816	339	2028	769
D3060 - Controls and Instrumentation	DDC System - Basic - 2008	20	1	816	948	2028	2,152
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 2008	20	4	816	3,663	2028	8,318
D5033 - Telephone Systems	Telephone System - Light Density - 2008	10	2	816	1,518	2028	2,923
C1030 - Fittings	Restroom Accessories - Economy - 2008	20	2	816	1,357	2028	3,081
C10 - Interior Construction	Restroom - Complete - 2000	30	21,414	1	21,414	2030	53,311
C3020 - Floor Finishes	Ceramic Tile - 2008	25	17	132	2,248	2030	5,595
C3010 - Wall Finishes	Ceramic Tile - 2008	25	12	184	2,160	2030	5,377
C3020 - Floor Finishes	Concrete - Sealed - Mechanical Rm 2008	5	1	132	142	2031	371
D3040 - Distribution Systems	Exhaust System - General Building - 2008	25	1	816	870	2033	2,485

C3030 - Ceiling Finishes	GWB Taped and Finished - 2008	30	5	816	4,366	2035	13,674
B3015 - Roof Eaves and Soffits	Fascia and Soffits - wood Fascia, Metal soffit - 2008	30	8	338	2,542	2035	6,369
B2020 - Exterior Windows	Wood Windows - Clad outside - 2008	30	27	150	4,052	2035	12,692
B2030 - Exterior Doors	Door Assembly -Metal 1/2 glass 3 x 7 - 2008	30	2,067	1	2,067	2035	6,475
A - Substructure	Structural Slab on Grade - Light Industrial - 2008	75	9	816	6,993		
D2010 - Plumbing Fixtures	Custodial/Utility Sinks - 2008	30	0	816	281		
D2010 - Plumbing Fixtures	Kitchenette - Cabinet, Counter and Sink - 2008	30	4	816	3,596		
D2020 - Domestic Water Distribution	Water Dist Complete - 2008	30	3	816	2,373		
D40 - Fire Protection	Fire Extinguishers - 2008	30	0	816	27		
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 2008	30	5	816	4,271		
D5010 - Electrical Service and Distribution	Feeder - Light Service - 2008	30	1	816	706		
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 2008	30	0	816	255		
A - Substructure	Foundation Wall and Footings - No Basement - 2008	75	144	116	16,748		
B10 - Superstructure	Single-Story - Wood - 2008	75	8	1,032	7,741		
B30 - Roofing	Metal Roofing - Economy - 2008	50	9	1,032	9,218		
B2010 - Exterior Walls	Stone Veneer Walls - Economy - 2008	75	60	68	4,059		
B2010 - Exterior Walls	Vinyl Siding "log like" - 2008	40	9	1,188	10,941		
C1010 - Partitions	GWB Walls - Standard (Painted) - 2008	50	5	1,440	6,926		
C1020 - Interior Doors	Swinging Doors - 3 x 7 solid core wood - 2008	50	2,097	2	4,194		
D3020 - Heat Generating Systems	Boiler HW - Gas-Fired w/Redundancy - 2008	30	9	816	7,574		
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - 2008	50	6	816	4,722		
D2030 - Sanitary Waste	Sanitary Waste - Septic System - 2008	50	15,707	1	15,707		
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - 2008	30	2	816	1,803		

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

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
B2020 - Exterior Windows	Wood Windows - sliders - 1960	30	27	36	973	2016	1,273
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish- 1960	10	1	1,504	1,805	2016	2,362
C3010 - Wall Finishes	T & G Pine Wood Paneling - Economy - 1960	25	32	736	23,478	2016	19,911
C3020 - Floor Finishes	VCT - Average - 12" x 12" - 1960	10	4	656	2,396	2016	3,136
C3030 - Ceiling Finishes	ACT System - Standard - 1960	20	6	672	4,099	2016	5,365
B2010 - Exterior Walls	Wood Siding - Economy - 1960	50	13	1,248	15,987	2016	2,009
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1960	30	2,067	1	2,067	2016	2,705
C3020 - Floor Finishes	Concrete - Sealed - 1960	5	1	528	569	2016	745
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - 1960	50	4,626	1	4,626	2016	6,054
C1020 - Interior Doors	Swinging Doors - 3 x 7 Hollow Wd - NR - 1960	50	2,097	3	6,292	2016	8,234
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation 1960	30	3,163	1	3,163	2016	4,139
B30 - Roofing	Metal Roofing - Economy - 1960	50	9	1,300	11,612	2016	15,197
C3030 - Ceiling Finishes	Wood Ceiling - Painted - 1960	30	11	528	6,051	2016	7,919
C1010 - Partitions	Wood Stud Walls w/ unfinished plywood - 1960	50	5	1,024	4,925	2016	3,197
D2020 - Domestic Water Distribution	Water Dist Complete - 1960	30	3	1,152	3,351	2016	3,929
D2020 - Domestic Water Distribution	Water Heater - Gas - Comm (SF) - 1960	15	2	1,152	1,845	2016	2,415
D3040 - Distribution Systems	Exhaust System - General Building - 1960	25	1	1,152	1,228	2016	1,607
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan - 1960	20	0	1,152	478	2016	626
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1960	30	5	1,152	6,030	2016	7,891

D5010 - Electrical Service and Distribution	Feeder - Light Service - 1960	30	1	1,152	997	2016	1,305
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1960	30	0	1,152	360	2016	471
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1960	20	4	1,152	5,171	2016	6,767
D5033 - Telephone Systems	Telephone System - Light Density - 1960	10	2	1,152	2,143	2016	2,378
D2030 - Sanitary Waste	Sanitary Waste - Septic System - 1960	50	15,707	1	15,707	2016	20,556
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - 1960	50	6	1,152	6,666	2016	8,725
C1030 - Fittings	Restroom Accessories - Economy - 1960	20	1	4,160	3,272	2016	4,282
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - 1960	30	2	1,152	2,545	2016	3,331
D3012 - Gas Supply System	Propane Tank - 1000 Gallons - 1960	30	4,617	1	4,617	2016	6,043
C3020 - Floor Finishes	Concrete - Sealed - 1960	5	1	528	569	2021	937
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish- 1960	10	1	1,504	1,805	2026	3,739
C3020 - Floor Finishes	VCT - Average - 12" x 12" - 1960	10	4	656	2,396	2026	4,964
C3020 - Floor Finishes	Concrete - Sealed - 1960	5	1	528	569	2026	1,179
D5033 - Telephone Systems	Telephone System - Light Density - 1960	10	2	1,152	2,143	2026	3,764
D3020 - Heat Generating Systems	Furance, gas fired 75MBH - 2000	30	3,861	1	3,861	2030	9,612
C3020 - Floor Finishes	Concrete - Sealed - 1960	5	1	528	569	2031	1,483
D2020 - Domestic Water Distribution	Water Heater - Gas - Comm (SF) - 1960	15	2	1,152	1,845	2031	4,809
A - Substructure	Structural Slab on Grade - Light Industrial - 1960,	75	9	1,152	9,873	2035	1,484
A - Substructure	Foundation Wall and Footings - No Basement - 1960	75	144	144	20,791	2035	3,126
B10 - Superstructure	Single-Story - Wood - 1960	75	8	1,300	9,751	2035	1,466

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.

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

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
B30 - Roofing	Single-Ply Membrane - Ballasted - 1969	25	12	3,096	36,156	2015	45,196
B2030 - Exterior Doors	Overhead Sectional Door - Electric Operation - 1969	30	7,564	1	7,564	2015	9,456
D3012 - Gas Supply System	Natural Gas Service to Bldg - 1" Feed - 1969	40	1,568	1	1,568	2015	1,960
D3050 - Terminal and Package Units	Unit Heaters - Hot Water from Boiler - General Bldg - 1969	15	1,271	1	1,271	2015	1,423
D3040 - Distribution Systems	Exhaust System - General Bldg - 1969	25	1	6,192	6,599	2015	8,249
E - Equipment and Furnishings	Thur Wall Unit Air Conditioner - Police Area - 1994	20	1,855	1	1,855	2015	1,855
D3040 - Distribution Systems	Perimeter Heat System - Hydronic - 1969	20	10	17,726	176,143	2015	#######
D3040 - Distribution Systems	RTU - Const Volume w/distribution - Cooling only - Offices - 1989	25	25,620	2	51,240	2015	64,050
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1969	30	3	6,192	18,010	2015	20,261
D5033 - Telephone Systems	Telephone & Data System - Average Density - 2000	10	3	6,192	17,276	2015	18,355
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1995	10	1	11,973	14,368	2015	17,960
C1030 - Fittings	Restroom Accessories - Economy - 1978	20	1	6,192	4,870	2015	6,087
C3020 - Floor Finishes	Ceramic Tile - 1969	25	21	1,080	23,066	2015	28,833
C3020 - Floor Finishes	Concrete - Sealed - 1969	10	1	1,302	1,403	2015	1,754
C3030 - Ceiling Finishes	ACT System - Standard - 1995	20	6	4,077	24,870	2015	31,087
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - Economy - 1969	30	2	6,192	13,679	2015	17,099
E - Equipment and Furnishings	Fixed Casework - Average - 1969	25	270	100	27,010	2015	33,763
B2030 - Exterior Doors	Door Assembly - 3 x 7 Alum - 1969	30	3,151	4	12,602	2015	15,753
C1030 - Fittings	Lockers - Average - 1969	40	557	11	6,131	2015	7,664

C3020 - Floor Finishes	Carpeting - Tile - 1995	10	6	639	3,791	2015	4,739
D5010 - Electrical Service and Distribution	Distribution System - Medium Capacity - 1969	30	8	6,192	51,784	2015	64,730
D5020 - Lighting and Branch Wiring	Lighting - Exterior - 1969	20	538	5	2,690	2015	3,363
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices - Average Density - 1969	30	3	6,192	16,692	2015	20,865
C1020 - Interior Doors	Swinging Doors - 3 x 7 Wd - 1969	50	2,097	26	54,528	2018	78,229
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - 1969	50	2,545	8	20,359	2018	29,209
C3010 - Wall Finishes	Wood Paneling - Economy	25	16	957	15,264	2019	14,857
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1998	20	4	6,192	27,792	2020	43,709
D5092 - Emergency Light and Power Systems	Emergency Generator - 75kW	20	32,308	1	32,308	2020	50,810
D3060 - Controls and Instrumentation	Electric Controls - Average - 2003	20	1	6,192	9,036	2022	15,578
D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 40 gal - 2014	10	2,463	1	2,463	2023	3,984
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - Police Cheif - 1995	30	2,067	1	2,067	2024	3,907
D2010 - Plumbing Fixtures	Kitchenette - Cabinet, Counter and Sink - 1969	30	1	6,192	8,643	2024	16,334
C3020 - Floor Finishes	VCT - Vinyl Composite Tile - 2010	10	4	1,944	7,100	2024	13,419
D2010 - Plumbing Fixtures	Water Fountains - Wall-Mounted Single Height - 1969	20	1,920	2	3,840	2025	7,597
D5033 - Telephone Systems	Telephone & Data System - Average Density - 2000	10	3	6,192	17,276	2025	29,056
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1995	10	1	11,973	14,368	2025	28,429
C3020 - Floor Finishes	Concrete - Sealed - 1969	10	1	1,302	1,403	2025	2,777
C3020 - Floor Finishes	Carpeting - Tile - 1995	10	6	639	3,791	2025	7,501
B2010 - Exterior Walls	Metal Paneled Walls - CMU or Wood Backup - 2" Rigid Insulation - 1969	60	20	486	9,876	2028	2,153
B2020 - Exterior Windows	Aluminum Windows - North Windows - 2000	30	68	514	34,798	2029	82,740
B2020 - Exterior Windows	Aluminum Windows - Windows - 2000	30	68	616	41,703	2029	99,159
B3021 - Glazed Roof Openings	Skylights - Main Entry Lobby - 2000	30	131	126	16,548	2029	39,346
D3050 - Terminal and Package Units	Unit Heaters - Hot Water from Boiler - General Bldg - 1969	15	1,271	1	1,271	2030	2,834

D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 40 gal - 2014	10	2,463	1	2,463	2033	6,306
D3020 - Heat Generating Systems	Boiler HW Low Pressure - Gas - XXXX MBH - (2) - 2003	30	5	6,192	34,016	2033	77,754
C3020 - Floor Finishes	VCT - Vinyl Composite Tile - 2010	10	4	1,944	7,100	2034	21,241
E - Equipment and Furnishings	Thur Wall Unit Air Conditioner - Police Area - 1994	20	1,855	1	1,855	2035	4,648
D3040 - Distribution Systems	Perimeter Heat System - Hydronic - 1969	20	10	17,726	176,143	2035	#######
D5033 - Telephone Systems	Telephone & Data System - Average Density - 2000	10	3	6,192	17,276	2035	45,994
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1995	10	1	11,973	14,368	2035	45,002
C1030 - Fittings	Restroom Accessories - Economy - 1978	20	1	6,192	4,870	2035	15,253
C3020 - Floor Finishes	Concrete - Sealed - 1969	10	1	1,302	1,403	2035	4,395
C3030 - Ceiling Finishes	ACT System - Standard - 1995	20	6	4,077	24,870	2035	77,896
C3020 - Floor Finishes	Carpeting - Tile - 1995	10	6	639	3,791	2035	11,874
D5020 - Lighting and Branch Wiring	Lighting - Exterior - 1969	20	538	5	2,690	2035	8,426
A - Substructure	Foundation Wall and Footings - 1969	75	151	122	18,429		
A - Substructure	Structural Slab on Grade - 4 inch - No Insulation - 1969	75	9	3,096	26,533		
C1030 - Fittings	Toilet Partitions - Average - 2000	40	1	6,192	6,834		
C1010 - Partitions	CMU Block Walls - 4" & 8" - 1969	50	11	4,356	46,827		
C20 - Stairs	Stairs - Economy - 1969	75	12,230	1	12,230		
A - Substructure	Foundation Wall and Footings - Full Basement - 1969	75	427	122	52,150		
B10 - Superstructure	Single-Story - CMU Bearing - Precast Floor & Roof - 1969	75	31	6,192	194,413		
B2010 - Exterior Walls	Brick Composite Walls - CMU Backup - 1-in Rigid Insulation - 1969	75	34	2,390	80,208		
C1010 - Partitions	Brick Composite Walls - CMU Backup - 1969	75	34	2,156	72,355		
C1020 - Interior Doors	Overhead/Rolling Door - Electric - 1995	50	4,922	2	9,844		

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.

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

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
D2010 - Plumbing Fixtures	Water Fountains - Wall-Mounted Single Height - 1966	20	1,920	1	1,920	2015	2,400
D3012 - Gas Supply System	Natural Gas Service to Bldg - 1" Feed - 1966	40	1,568	1	1,568	2015	1,960
D3040 - Distribution Systems	Exhaust System - General Bldg - 1966	25	1	4,588	4,889	2015	6,112
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1966	30	3	4,588	13,345	2015	15,013
D5033 - Telephone Systems	Telephone System - Average Density - 2000	10	1	4,588	6,827	2015	7,254
C3020 - Floor Finishes	Concrete - Sealed - 1966	10	1	3,138	3,382	2015	4,227
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - Economy - 1966	30	2	4,588	10,136	2015	12,670
D5010 - Electrical Service and Distribution	Distribution System - Medium Capacity - 1966	30	8	4,588	38,370	2015	47,962
D5020 - Lighting and Branch Wiring	Lighting - Exterior - HID Wall Packs - 1966	20	538	2	1,076	2015	1,345
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices - Average Density - 1966	30	3	4,588	12,368	2015	15,460
B30 - Roofing	Single-Ply Membrane - Ballasted - 1985	25	12	3,816	44,565	2015	55,706
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1966	30	2,067	2	4,134	2015	5,168
B2030 - Exterior Doors	Overhead Sectional Door - Electric Operation - 1966	30	3,626	4	14,505	2015	18,131
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	10	1	4,208	5,050	2015	6,312
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - NR - 1966	50	2,205	2	4,410	2015	5,513
C1030 - Fittings	Restroom Accessories - Economy - 1966	20	1	4,588	3,608	2015	4,510
C1030 - Fittings	Toilet Partitions - Average - 1966	40	1	3,816	4,211	2015	5,264
C3020 - Floor Finishes	Ceramic Tile - 1966	25	16	180	2,905	2015	3,631
C1010 - Partitions	CMU Block Walls - 6-in - 1966	50	11	1,090	11,718	2015	7,323

C3010 - Wall Finishes	Wood Paneling - Economy - 1966	25	10	704	6,737	2015	5,457
B2020 - Exterior Windows	Wood Windows - 1986	30	27	140	3,782	2015	4,728
B30 - Roofing	BUR (Built-Up Roofing) - Pitch & Gravel - 1966	20	10	3,816	38,923	2015	48,654
C3010 - Wall Finishes	Glazed Finished CMU - 1966	25	17	670	11,630	2015	14,537
C3030 - Ceiling Finishes	Acoustic Ceilng - Standard - 1966	20	7	3,815	25,141	2015	31,426
C1020 - Interior Doors	Swinging Doors - 3 x 7 HW-NR - 1966	50	2,205	1	2,205	2015	2,757
D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) - 2000	15	4,940	1	4,940	2015	5,533
C3030 - Ceiling Finishes	Cement Asbestos Board 1966	20	7	190	1,252	2015	1,565
D2020 - Domestic Water Distribution	Water Heater - Gas - On Demand - 2009	10	2,463	1	2,463	2018	3,166
C3020 - Floor Finishes	VCT - Vinyl Composite Tile - 2010	10	4	192	701	2019	1,053
C3020 - Floor Finishes	Carpeting - Broadloom - Economy -2010	10	5	900	4,619	2019	6,939
D3060 - Controls and Instrumentation	Electric Controls - Average - 2010	20	1	1,500	2,189	2022	3,774
D3050 - Terminal and Package Units	Unit Heaters - Gas Fired - 2010	15	1	4,588	5,829	2024	9,871
D5033 - Telephone Systems	Telephone System - Average Density - 2000	10	1	4,588	6,827	2025	11,482
C3020 - Floor Finishes	Concrete - Sealed - 1966	10	1	3,138	3,382	2025	6,692
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	10	1	4,208	5,050	2025	9,992
B2010 - Exterior Walls	Wood Paneled Walls - CMU or Wood Backup - 2" Rigid Insulation - 1966	60	20	320	6,502	2025	1,235
D2020 - Domestic Water Distribution	Water Heater - Gas - On Demand - 2009	10	2,463	1	2,463	2028	5,012
C3020 - Floor Finishes	VCT - Vinyl Composite Tile - 2010	10	4	192	701	2029	1,667
C3030 - Ceiling Finishes	ACT System - Standard - 2010	20	6	192	1,171	2029	2,785
D5022 - Lighting Equipment	Lighting Fixtures - Average Density -2010	20	4	4,588	20,593	2029	48,965
C3020 - Floor Finishes	Carpeting - Broadloom - Economy -2010	10	5	900	4,619	2029	10,983
D2090 - Other Plumbing Systems	Air Compressor - 2010	20	5,382	1	5,382	2029	10,749
E - Equipment and Furnishings	Fire Hall Equipment - Economy - 2010	20	6	2,500	14,129	2029	33,595

D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) - 2000	15	4,940	1	4,940	2030	11,019
D2010 - Plumbing Fixtures	Water Fountains - Wall-Mounted Single Height - 1966	20	1,920	1	1,920	2035	6,013
D5033 - Telephone Systems	Telephone System - Average Density - 2000	10	1	4,588	6,827	2035	18,176
C3020 - Floor Finishes	Concrete - Sealed - 1966	10	1	3,138	3,382	2035	10,593
D5020 - Lighting and Branch Wiring	Lighting - Exterior - HID Wall Packs - 1966	20	538	2	1,076	2035	3,371
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)	10	1	4,208	5,050	2035	15,816
C1030 - Fittings	Restroom Accessories - Economy - 1966	20	1	4,588	3,608	2035	11,302
B30 - Roofing	BUR (Built-Up Roofing) - Pitch & Gravel - 1966	20	10	3,816	38,923	2035	#######
C3030 - Ceiling Finishes	Acoustic Ceilng - Standard - 1966	20	7	3,815	25,141	2035	78,745
C3030 - Ceiling Finishes	Cement Asbestos Board 1966	20	7	190	1,252	2035	3,922
A - Substructure	Foundation Wall and Footings - No Insulation- 1966	75	144	250	36,095		
A - Substructure	Structural Slab on Grade - 6 inch - No Insulation - 1966	75	9	3,816	32,703		
C20 - Stairs	Stairs - Economy - 1966	75	2,084	1	2,084		
B2010 - Exterior Walls	Brick Composite Walls - CMU Backup - 1" insulation- 1966	75	34	3,720	124,843		
C1030 - Fittings	Turn Out Gear Lockers - 2010	40	743	25	18,580		
B10 - Superstructure	Single-Story - Steel Framed Roof on Bearing Walls - 1966	75	6	3,816	22,782		
C1010 - Partitions	GWB Walls - Standard (Non-Painted) - 2010	50	5	352	1,693		

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 his 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:

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 40 gal	10	2,463	1	2,463	2016	2,888
D3050 - Terminal and Package Units	Unit Heaters - Hot Water from Boiler - Stair - 2008	15	1,271	1	1,271	2016	1,490
D3040 - Distribution Systems	Exhaust System - Basement - 1977	25	1	4,171	4,445	2016	5,817
D3040 - Distribution Systems	Perimeter Heat System - Hydronic - 1977	20	10	9,623	95,623	2016	112,132
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1977	30	3	6,192	18,010	2016	21,214
D2010 - Plumbing Fixtures	Lower Level Bar Cabinet, Counter and Sink - 1977	30	1	9,623	13,432	2016	17,580
C3020 - Floor Finishes	Vinyl Composite Tile - 12" x 12 " - Basement - 1977	10	4	2,879	10,516	2016	13,762
C3020 - Floor Finishes	Concrete - Sealed - 1975	10	1	1,362	1,468	2016	1,921
E - Equipment and Furnishings	Fixed Casework - Average - Basement 1975	25	270	32	8,643	2016	11,312
B30 - Roofing	Single-Ply EPDM Membrane - Fully Adhered - 1977	25	15	5,673	82,420	2016	107,867
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - Basement - 1977	30	2	9,623	21,259	2016	27,823
D5010 - Electrical Service and Distribution	Distribution System - Med Capacity - Basement - 1977	30	8	4,171	34,882	2016	45,652
D5022 - Lighting Equipment	Lighting Fixtures - Avg Density - Basement 1977	20	4	4,171	18,721	2016	24,501
D5021 - Branch Wiring Devices	Branch Wiring - Equip & Devices - Avg Density - Basement - 1977	30	3	4,171	11,244	2016	14,716
E - Equipment and Furnishings	Kitchen Equipment - Basement 1977	25	49,958	1	49,958	2016	52,306
D3012 - Gas Supply System	Natural Gas Service to Bldg - 1" Feed - 1977	40	1,568	1	1,568	2017	2,148
D2020 - Domestic Water Distribution	Water Heater - Elec - Point of Use - 2.5 Gal - 2008	10	711	1	711	2018	914
D2020 - Domestic Water Distribution	Water Heater - Elec - 6 Gal - 2008	10	2,004	1	2,004	2018	2,576
C1020 - Interior Doors	Swinging Doors - 3 x 7 hollow Wd - NR - 1977	50	2,097	8	16,778	2019	25,202

D5033 - Telephone Systems	Telephone System - Average Density - 2008	10	3	9,623	26,848	2021	37,577
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)1977 & 2008	10	1	9,264	11,117	2023	20,066
D3030 - Cooling Generating Systems	DX Condensing Unit - Less Than 25 Tons - 2008	15	4	2,500	8,906	2023	16,075
D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) - 2008	15	4,940	1	4,940	2023	7,990
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1977	30	2,067	2	4,134	2025	8,180
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - NR - 1977	50	2,545	2	5,090	2025	10,071
C3030 - Ceiling Finishes	ACT System - Standard 1975 & 2008	20	6	5,551	33,861	2025	67,000
B30 - Roofing	Metal Roofing - Economy - 1995	50	9	404	3,609	2025	7,140
D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 40 gal	10	2,463	1	2,463	2026	4,572
C3020 - Floor Finishes	Vinyl Composite Tile - 12" x 12 " - Basement - 1977	10	4	2,879	10,516	2026	21,785
C3020 - Floor Finishes	Concrete - Sealed - 1975	10	1	1,362	1,468	2026	3,041
C1010 - Partitions	CMU Block Walls - 12" & 8" - 1977 & 2008	50	11	3,254	34,981	2027	37,937
D2030 - Sanitary Waste	Sanitary Waste - Pumped Disch - 1977	50	2	9,623	22,424	2027	43,581
D2010 - Plumbing Fixtures	Water Fountains - Wall-Mounted Single Height - 1977	20	1,920	2	3,840	2028	8,720
D3044 - Hot Water Distribution	Boiler Circulating Pumps - 1.5 HP - 2008	20	1,071	2	2,143	2028	3,893
C1030 - Fittings	Restroom Accessories - 2008	20	1	9,623	7,568	2028	17,188
D3060 - Controls and Instrumentation	Electric Controls - Average - 2008	20	1	9,623	14,042	2028	31,890
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 2008	20	4	5,452	24,471	2028	55,573
D3040 - Distribution Systems	Perimeter Heat System - Hydronic - 2008	20	10	3,000	29,811	2028	60,660
D2020 - Domestic Water Distribution	Water Heater - Elec - Point of Use - 2.5 Gal - 2008	10	711	1	711	2028	1,446
D2020 - Domestic Water Distribution	Water Heater - Elec - 6 Gal - 2008	10	2,004	1	2,004	2028	4,078
C1030 - Fittings	Restroom Accessories - 1977	20	1	9,623	7,568	2028	17,188
C3010 - Wall Finishes	Wood Paneling - Economy - 1977 & 2008	25	16	1,178	18,789	2030	30,310
C3010 - Wall Finishes	Ceramic Tile - 2008	25	12	631	7,406	2030	18,438

C3030 - Ceiling Finishes	Wood Ceiling - Painted or Stained 1975 & 2008	30	11	644	7,380	2030	18,373
E2012 - Fixed Casework	Fixed Casework - Luxury bar - 2008	25	386	94	36,300	2030	90,367
D3050 - Terminal and Package Units	Unit Heaters - Hot Water from Boiler - Stair - 2008	15	1,271	1	1,271	2031	2,967
D5033 - Telephone Systems	Telephone System - Average Density - 2008	10	3	9,623	26,848	2031	59,483
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)1977 & 2008	10	1	9,264	11,117	2033	31,764
C3020 - Floor Finishes	Ceramic Tile - 1995 & 2008	25	21	3,948	84,319	2033	240,923
C3030 - Ceiling Finishes	Metal Paneled System - 2008	25	13	168	2,129	2033	6,082
D3040 - Distribution Systems	Exhaust System - General Bldg - 2008	25	1	5,452	5,810	2033	16,601
D3040 - Distribution Systems	AHU 1 - Const Volumn w/distribution - Heating & Cooling - 2008	25	25,460	1	25,460	2033	72,747
D3040 - Distribution Systems	Energy Recovery Ventilator (1) - Air to Air - ERV - 2008	25	8,396	1	8,396	2033	23,990
E - Equipment and Furnishings	Kitchen Equipment - 2008	25	94,110	1	94,110	2033	215,119
B30 - Roofing	Single-Ply EPDM Membrane - Fully Adhered - 2008	25	15	902	13,105	2033	37,443
A - Substructure	Foundation Wall and Footings - Full Basement - 1977	75	427	462	197,487	2035	29,691
A - Substructure	Foundation Wall and Footings - No Basement - 1995 & 2008	75	144	178	25,700	2035	3,864
B2030 - Exterior Doors	Door Assembly - 3 x 7 Storefront - 2008	30	4,152	3	12,456	2035	39,013
B3015 - Roof Eaves and Soffits	Fascia and Soffits, Metal, 2008	30	8	1,123	8,445	2035	21,161
C1020 - Interior Doors	Swinging Doors - 3 x 7 Metal - Full Glass 2008	50	2,736	2	5,472	2035	17,140
C3030 - Ceiling Finishes	GWB Taped and Finished 2008	30	5	1,262	6,752	2035	21,147
D3020 - Heat Generating Systems	Fireplace - Propane fueled insert - 2008	35	5,888	1	5,888	2035	14,754
D3020 - Heat Generating Systems	Boiler HW - Gas - 175,000 MBH - (2) - 2008	30	23	9,623	220,269		
A - Substructure	Structural Slab on Grade - 1977 & 2008	75	9	5,101	43,716		
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - 2008	30	2	9,623	21,259		
B2010 - Exterior Walls	Metal Paneled Walls - CMU or Wood Backup - 2008	60	20	294	5,974		

D5010 - Electrical Service and Distribution	Distribution System - Medium Capacity - 2008	30	8	5,452	45,595		
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices - Average Density - 2008	30	3	5,452	14,697		
B2020 - Exterior Windows	Aluminum Windows - 2008	30	81	101	8,189		
B2020 - Exterior Windows	Aluminum Storefront - 2008	40	90	68	6,084		
C1010 - Partitions	GWB Partitions On 1 1/2" Furring - 2008	50	4	1,062	3,802		
C1010 - Partitions	GWB Walls - Standard (Non-Painted)	50	5	3,393	16,320		
C1020 - Interior Doors	Swinging Doors - 3 x 7 solid core wood - 2008	50	2,413	5	12,063		
C1020 - Interior Doors	Overhead/Rolling alum shutter roll up - Mid-Size (Electric Operation)	50	4,922	2	9,844		
C1030 - Fittings	Toilet Partitions - Deluxe 2008	40	3	3,000	10,020		
C20 - Stairs	Stairs - Average - Steel & concrete 1975 Tile 2008	75	12,686	39	494,767		
B10 - Superstructure	Single-Story - CMU Bearing Walls - 1977	75	6	2,340	13,970		
B2010 - Exterior Walls	Fiber Cement siding with insulation - 2008	75	74	5,261	391,261		

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 programing 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

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Renewal Action FY	Renewal Action Cost
B30 - Roofing	Single-Ply Membrane - Ballasted - 1989	25	12	3,096	2015	45,196
D3012 - Gas Supply System	Natural Gas Service to Bldg - 1" Feed - 1967	40	1,568	1	2015	1,960
D3050 - Terminal and Package Units	Unit Cabinet Heaters - Electric - 1967	15	1,660	1	2015	1,860
D3040 - Distribution Systems	Exhaust System - General Bldg - 1967	25	1	4,160	2015	5,542
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1967	30	3	6,192	2015	20,261
D5033 - Telephone Systems	Telephone & Data System - Average Density	10	1	4,160	2015	4,111
C3020 - Floor Finishes	Concrete - Sealed 1967	10	1	464	2015	625
C3030 - Ceiling Finishes	ACT System - Standard - 1967	20	6	2,178	2015	16,607
D5010 - Electrical Service and Distribution	Distribution System - Medium Capacity - 1967	30	8	4,160	2015	43,488
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices - Average Density - 1967	30	3	4,160	2015	14,018
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1993	20	4	4,160	2015	23,340
C3020 - Floor Finishes	Ceramic Tile - 1967	25	21	40	2015	1,068
C3020 - Floor Finishes	Carpeting - Broadloom - 1996	10	5	2,219	2015	14,236
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - Economy - 1967	30	2	4,160	2015	11,488
C3020 - Floor Finishes	Ceramic Tile - 1986	25	21	354	2015	9,451
B2020 - Exterior Windows	Steel Windows - Windows - 1967	30	68	162	2015	13,709
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - 1967	50	2,545	2	2016	6,661
C1010 - Partitions	CMU Block Walls - 4" & 8" - 1967	50	11	900	2016	6,331
D2030 - Sanitary Waste	Sanitary Waste - Pumped Disch - 1967	50	2	4,160	2016	11,368
D2020 - Domestic Water Distribution	Water Heater - 2006	15	1	4,160	2020	5,013

D2010 - Plumbing Fixtures	Water Fountains - Wall-Mounted - 2003	20	1,920	1	2022	3,310
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 2010	10	1	1,886	2022	3,902
C1030 - Fittings	Restroom Accessories - 2003	20	1	4,160	2022	5,641
D3060 - Controls and Instrumentation	Electric Controls - Average - 2003	20	1	3,600	2022	9,057
D5020 - Lighting and Branch Wiring	Lighting - Exterior - 2003	20	538	4	2022	3,710
C3020 - Floor Finishes	Carpeting - Broadloom - 2013	10	5	319	2022	2,823
D3040 - Distribution Systems	Exhaust System - Roof Ventilation Fan - 2003	20	0	300	2022	215
D5033 - Telephone Systems	Telephone & Data System - Average Density	10	1	4,160	2025	6,507
C3020 - Floor Finishes	Concrete - Sealed 1967	10	1	464	2025	989
C3020 - Floor Finishes	Carpeting - Broadloom - 1996	10	5	2,219	2025	22,535
B2010 - Exterior Walls	Cement Asbestos Paneled Walls - CMU or Wood Backup - 2" Rigid Insulation - 1967	60	20	575	2026	2,324
C3020 - Floor Finishes	Ceramic Tile - 2003	25	21	60	2027	2,780
C3010 - Wall Finishes	Ceramic Tile - 2003	25	12	96	2027	2,444
E - Equipment and Furnishings	Fixed Casework - Average	25	405	16	2029	15,413
D3050 - Terminal and Package Units	Unit Cabinet Heaters - Electric - 1967	15	1,660	1	2030	3,704
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 2010	10	1	1,886	2032	6,176
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - Economy - 2003	30	2	4,160	2032	25,080
B2030 - Exterior Doors	Door Assembly - 3 x 7 Metal - 2003	30	3,151	1	2032	8,598
C3030 - Ceiling Finishes	GWB Taped and Finished - 2003	30	5	100	2032	1,460
C3030 - Ceiling Finishes	Wood Ceiling - Painted or Stained - 2003	30	11	54	2032	1,689
C3020 - Floor Finishes	Carpeting - Broadloom - 2013	10	5	319	2032	4,468
D3050 - Terminal and Package Units	Furnace with AC - Gas Fired w/Humidity Control - 2010	25	4	4,160	2034	50,783
D5033 - Telephone Systems	Telephone & Data System - Average Density	10	1	4,160	2035	10,300
C3020 - Floor Finishes	Concrete - Sealed 1967	10	1	464	2035	1,566

C3030 - Ceiling Finishes	ACT System - Standard - 1967	20	6	2,178	2035	41,613
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1993	20	4	4,160	2035	58,483
C3020 - Floor Finishes	Carpeting - Broadloom - 1996	10	5	2,219	2035	35,672
D2020 - Domestic Water Distribution	Water Heater - 2006	15	1	4,160	2035	9,985
A - Substructure	Foundation Wall and Footings - No Insulation - 1967	75	144	234		
B10 - Superstructure	Multi-Story - Steel Flr & Roof on CMU Bearing Walls - 1967	75	30	560		
A - Substructure	Structural Slab on Grade - 4 inch - No Insulation - 1967	75	9	4,160		
C1020 - Interior Doors	Swinging Doors - 3 x 7 Wd - 2003	50	2,097	4		
C20 - Stairs	Stairs - 1967	75	12,230	1		
A - Substructure	Foundation Wall and Footings - Full Basement - No Insulation - 1967	75	427	108		
B2010 - Exterior Walls	Brick Composite Walls - CMU Backup - 1.5-in Fiber Glass Insulation - 1967	75	34	2,762		
B2020 - Exterior Windows	Aluminum Windows - Windows - 2013	30	68	209		
C1010 - Partitions	Brick Composite Walls - CMU Backup - 1967	75	34	480		
B10 - Superstructure	Single-Story - Steel Framed Roof on Bearing Walls - 1967	75	6	3,600		
C1010 - Partitions	GWB Walls - Standard (Non-Painted) - 2003	50	5	424		
C1020 - Interior Doors	Door Assembly - 6 x 7 Storefront - 2010	30	6,597	1		
B2030 - Exterior Doors	Door Assembly - 3 x 7 Metal - 2013	30	3,151	1		

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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

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

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
D2010 - Plumbing Fixtures	Kitchenette - Cabinet, Counter and Sink 1960 - 1962	30	1	59,072	32,181	2015	40,226
D5036 - Clock and Program Systems	Clock System - Average Building - 1960 & 1962	10	1	30,000	23,811	2015	29,764
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) 1960 & 1962	10	1	48,554	58,265	2015	72,831
D2040 - Rain Water Drainage	Roof Drainage - Gravity - 1960 & 1962	50	2	59,072	106,089	2015	132,611
C1030 - Fittings	Restroom Accessories - Average - 1960	25	1	59,072	54,425	2015	68,031
C3020 - Floor Finishes	VCT - Average - 1960 & 1962	10	4	34,481	125,942	2015	157,427
C3020 - Floor Finishes	Ceramic Tile 1960, 1962 & 2008	25	17	3,117	53,073	2015	66,341
D5039 - Local Area Networks	D5039 - LAN System - Light Density - 2000	15	3	25,300	63,503	2015	67,313
D2020 - Domestic Water Distribution	~Water Heater 80 Gal - Gas - Comm (SF) - ???	15	2	5,500	8,429	2015	10,537
D5037 - Fire Alarm Systems	Fire Alarm System - Average Density - 1960 & 1962	10	4	59,072	232,844	2015	291,054
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan	20	0	59,072	24,515	2015	30,644
D2020 - Domestic Water Distribution	Water Dist Complete - 1960 & 1962	30	3	59,072	171,816	2015	192,434
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - High Density - 1960 & 1962	50	6	59,072	341,840	2015	427,300
C1010 - Partitions	CMU Block Walls - 12", 8", & 4" - 1960 & 1962	50	11	8,308	89,311	2015	55,373
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1960 & 1962	20	4	45,000	201,980	2015	252,474
D5033 - Telephone Systems	Telephone System - Average Density - 1960 & 1962	10	3	10,000	27,900	2015	29,574
C3030 - Ceiling Finishes	ACT System - Standard - 1960 & 1962	20	6	49,995	304,970	2015	381,212

D5092 - Emergency Light and Power Systems	Emergency Battery Pack Lights - 1960 & 1962	10	1	25,000	19,866	2015	24,833
D5010 - Electrical Service and Distribution	Feeder - Average Service - 1960 & 1962	30	2	59,072	102,289	2015	127,861
D2010 - Plumbing Fixtures	Custodial/Utility Sinks - 1960 & 1962	30	0	39,072	13,449	2015	16,811
E - Equipment and Furnishings	Kitchen Equipment - Average - 1960 & 1962	20	33,839	8	270,708	2015	338,385
D5010 - Electrical Service and Distribution	Switchgear - Average Duty - 1960 & 1962	30	0	59,072	25,842	2015	32,303
D5010 - Electrical Service and Distribution	Distribution System - Medium Capacity - 1960 & 1962	30	8	59,072	494,021	2015	617,526
E - Equipment and Furnishings	Food Service Counter - High End - 1960 & 1962	25	3,874	55	213,057	2015	266,322
D2010 - Plumbing Fixtures	Water Coolers - Wall-Mounted 1960 & 1962	20	0	59,072	11,340	2015	14,176
C1030 - Fittings	Toilet Partitions - Average - Metal - 1960, 1962 & 2008	40	1	11,362	12,540	2015	15,675
B30 - Roofing	Single-Ply EPDM Membrane - Fully Adhered - 1960 & 1962	25	15	55,588	807,607	2015	1,009,509
B30 - Roofing	Asphalt Shingled Roofing over original courtyard area date ?	20	7	2,340	15,869	2015	19,836
B3015 - Roof Eaves and Soffits	Fascia and Soffits, Metal, glazed tile 1960 & 1962	30	8	1,760	13,235	2015	13,235
C1020 - Interior Doors	Swinging Doors - 3 x 6'-8 Wd 1960 & 1962	50	688	47	32,326	2015	40,408
C3010 - Wall Finishes	Plaster on Lath - Add - 1960 & 1962	50	6	48,554	294,237	2015	182,427
C3010 - Wall Finishes	Ceramic Tile - glazed Tiled walls 1960 & 1962 & 2008	25	12	31,796	373,206	2015	466,507
C3010 - Wall Finishes	Raised Wood Paneling - Economy- 1960	25	32	1,100	35,090	2015	28,423
C1010 - Partitions	Folding Partitions - Economy- cloth - 1960 & 1962	15	82	3,996	327,552	2015	203,082
C3020 - Floor Finishes	Carpeting - Broadloom - Economy	10	5	558	2,864	2015	3,580
C3020 - Floor Finishes	Concrete - Painted - 1960	5	1	1,971	2,124	2015	2,655
C3020 - Floor Finishes	Wood Flooring - Premium - 1960	25	25	4,000	98,250	2015	122,813
C3020 - Floor Finishes	Terrazzo - Precast - 1960 & 1962	50	45	10,737	480,776	2015	600,970
C1010 - Partitions	Solid Brick/CMU Composite Wall - 1960 & 1962	75	35	48,249	1,704,477	2015	204,537

C1010 - Partitions	Hollow Clay tile Walls - Facing 2 Sides- 1960 & 1962	50	17	24,277	420,720	2015	260,847
E2012 - Fixed Casework	Fixed Casework - wood Oak 1960 & 1962	25	270	821	221,752	2015	277,190
D3020 - Heat Generating Systems	Boiler Steam - Oil-Fired w/DHW Coil and Tank - 1960 & 1962	30	######	2	422,297	2015	527,872
D3040 - Distribution Systems	Exhaust System - Kitchen - Commercial - 1960 & 1962	15	38	732	28,131	2015	35,164
G3063 - Fuel Storage Tanks	Fuel Storage Tanks - Under Ground - Single-Wall - Steel - 5000 Gallon	25	15,983	1	15,983	2015	16,782
D3050 - Terminal and Package Units	Thru-Wall Units - Unit Ventilators Electric Heat - 1960 & 1961	10	14,925	26	388,038	2015	485,047
D3040 - Distribution Systems	Perimeter Heat System - Steam CI Radiators - 1960 & 1962	30	12	59,072	701,703	2015	877,128
D3040 - Distribution Systems	Exhaust System - General Building - Exhaust Fans - 1960 & 1962	25	1	59,072	32,270	2015	40,337
D3060 - Controls and Instrumentation	Pneumatic Controls - Basic - 1960 & 1962	20	3	59,072	177,643	2015	198,960
D5092 - Emergency Light and Power Systems	Exit Signs - LED	10	1	59,072	38,673	2019	58,090
D3020 - Heat Generating Systems	Boiler Steam - Gas-Fired - 2010	30	10	29,072	281,737	2019	423,195
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 2000	20	4	15,000	67,327	2019	101,131
C3020 - Floor Finishes	Concrete - Painted - 1960	5	1	1,971	2,124	2020	3,341
C20 - Stairs	Stairs - Average - 1960	75	12,686	12	152,236	2024	85,161
D5036 - Clock and Program Systems	Clock System - Average Building - 1960 & 1962	10	1	30,000	23,811	2025	47,115
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) 1960 & 1962	10	1	48,554	58,265	2025	115,288
C3020 - Floor Finishes	VCT - Average - 1960 & 1962	10	4	34,481	125,942	2025	249,199
D5037 - Fire Alarm Systems	Fire Alarm System - Average Density - 1960 & 1962	10	4	59,072	232,844	2025	460,724
D5033 - Telephone Systems	Telephone System - Average Density - 1960 & 1962	10	3	10,000	27,900	2025	46,814
D5092 - Emergency Light and Power Systems	Emergency Battery Pack Lights - 1960 & 1962	10	1	25,000	19,866	2025	39,309
C3020 - Floor Finishes	Carpeting - Broadloom - Economy	10	5	558	2,864	2025	5,667
C3020 - Floor Finishes	Concrete - Painted - 1960	5	1	1,971	2,124	2025	4,203

D3050 - Terminal and Package Units	Thru-Wall Units - Unit Ventilators Electric Heat - 1960 & 1961	10	14,925	26	388,038	2025	767,805
D5092 - Emergency Light and Power Systems	Exit Signs - LED	10	1	59,072	38,673	2029	91,954
D3060 - Controls and Instrumentation	DDC System - New Boiler Only - 2010	20	3	4,000	10,423	2029	24,782
D5039 - Local Area Networks	D5039 - LAN System - Light Density - 2000	15	3	25,300	63,503	2030	134,060
D2020 - Domestic Water Distribution	~Water Heater 80 Gal - Gas - Comm (SF) - ???	15	2	5,500	8,429	2030	20,985
C1010 - Partitions	Folding Partitions - Economy- cloth - 1960 & 1962	15	82	3,996	327,552	2030	404,457
C3020 - Floor Finishes	Concrete - Painted - 1960	5	1	1,971	2,124	2030	5,288
D3040 - Distribution Systems	Exhaust System - Kitchen - Commercial - 1960 & 1962	15	38	732	28,131	2030	70,033
B2010 - Exterior Walls	Solid Brick/CMU Composite Wall - 1960 & 1962	75	35	23,130	817,115	2031	204,461
A - Substructure	Structural Slab on Grade - Non-Industrial - 1960 & 1962	75	6	60,364	389,348	2034	55,908
A - Substructure	Foundation Wall and Footings - No Basement - 1960 & 1962	75	144	6,061	875,087	2034	125,658
A - Substructure	Basement Wall and Footings - No Insulation - 1960 & 1962	75	355	140	49,715	2034	7,139
B10 - Superstructure	Single-Story - Steel Framed Roof on Bearing Walls - 1960 & 1962	75	6	57,928	345,830	2034	49,659
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - NR 2008	50	2,545	4	10,180	2034	30,453
C1020 - Interior Doors	Swinging Doors - 3 x 7 Metal - Full Glass 2008	50	2,736	1	2,736	2034	8,185
D5036 - Clock and Program Systems	Clock System - Average Building - 1960 & 1962	10	1	30,000	23,811	2035	74,581
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) 1960 & 1962	10	1	48,554	58,265	2035	182,495
C3020 - Floor Finishes	VCT - Average - 1960 & 1962	10	4	34,481	125,942	2035	394,470
D5037 - Fire Alarm Systems	Fire Alarm System - Average Density - 1960 & 1962	10	4	59,072	232,844	2035	729,303
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan	20	0	59,072	24,515	2035	76,784
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1960 & 1962	20	4	45,000	201,980	2035	632,632

D5033 - Telephone Systems	Telephone System - Average Density - 1960 & 1962	10	3	10,000	27,900	2035	74,104
C3030 - Ceiling Finishes	ACT System - Standard - 1960 & 1962	20	6	49,995	304,970	2035	955,213
D5092 - Emergency Light and Power Systems	Emergency Battery Pack Lights - 1960 & 1962	10	1	25,000	19,866	2035	62,224
E - Equipment and Furnishings	Kitchen Equipment - Average - 1960 & 1962	20	33,839	8	270,708	2035	847,901
D2010 - Plumbing Fixtures	Water Coolers - Wall-Mounted 1960 & 1962	20	0	59,072	11,340	2035	35,520
B30 - Roofing	Asphalt Shingled Roofing over original courtyard area date ?	20	7	2,340	15,869	2035	49,704
C3020 - Floor Finishes	Carpeting - Broadloom - Economy	10	5	558	2,864	2035	8,970
C3020 - Floor Finishes	Concrete - Painted - 1960	5	1	1,971	2,124	2035	6,653
D3050 - Terminal and Package Units	Thru-Wall Units - Unit Ventilators Electric Heat - 1960 & 1961	10	14,925	26	388,038	2035	1,215,395
D3060 - Controls and Instrumentation	Pneumatic Controls - Basic - 1960 & 1962	20	3	59,072	177,643	2035	498,540
D40 - Fire Protection	Fire Extinguishers - Dry Chem - 1960 & 1961	30	0	59,072	1,965		
D2010 - Plumbing Fixtures	Restroom Fixtures 7 - Std Density - 2008	30	3	5,500	15,579		
D40 - Fire Protection	Wet Sprinkler System - Ordinary Hazard w/Pump - 2010	35	8	59,072	461,546		
B2020 - Exterior Windows	Alum Windows - 2008	30	68	1,427	97,678		
C3030 - Ceiling Finishes	GWB Taped and Finished - 2008	30	5	756	4,045		
B2020 - Exterior Windows	Insulated Transluscent Panel Openings - 2008	30	40	2,280	90,267		
B2020 - Exterior Windows	Aluminum Storefront - 2008	40	90	318	28,665		
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 2009	30	2,067	1	2,067		
B2030 - Exterior Doors	Door Assembly - 3 x 7 Storefront - 2009	30	4,152	16	66,430		
B2030 - Exterior Doors	Overhead Loading dock Flush door - 2009	30	7,564	1	7,564		
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - 2008	50	2,545	4	10,180		
C1020 - Interior Doors	Swinging Doors - 3 x 7 - wood with Glass 2008	50	2,736	58	158,693		
D2010 - Plumbing Fixtures	Restroom Fixtures 7 - Std Density - 1960 & 1962	30	3	15,500	43,905		

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.

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1978	30	3	12,135	35,296	2015	39,708
B30 - Roofing	Single-Ply Membrane - Ballasted - 1978	25	12	10,861	126,840	2016	166,001
D5092 - Emergency Light and Power Systems	~Emergency Generator - 70kW	20	32,308	1	32,308	2016	42,283
D3060 - Controls and Instrumentation	Electric Thermostates - 1978	20	3	12,135	36,493	2016	42,793
D3040 - Distribution Systems	Exhaust System - General Bldg - 1978	25	1	12,135	12,932	2016	16,925
D5033 - Telephone Systems	Telephone System - 1978	10	3	2,500	6,975	2016	7,759
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1978	10	1	504	605	2016	792
C1030 - Fittings	Restroom Accessories - Economy - 1978	20	1	4,000	3,146	2016	4,117
C3010 - Wall Finishes	Paint Masonry/Epoxy Finish - Economy - 1978	15	3	12,480	41,808	2016	54,716
C3020 - Floor Finishes	VAT - Vinyl Asbestos Tile 9" - 1978	10	4	564	2,060	2016	2,696
C3020 - Floor Finishes	Ceramic Tile - 1978	25	21	136	2,905	2016	3,801
C3020 - Floor Finishes	Concrete - Sealed - 1978	10	1	9,412	10,144	2016	13,276
C3030 - Ceiling Finishes	ACT System - Standard - 1978	20	6	672	4,099	2016	5,365
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - 1978	30	2	4,000	8,837	2016	11,565
C3010 - Wall Finishes	Ceramic Tile - 1978	25	12	171	2,007	2016	2,627
D5020 - Lighting and Branch Wiring	Lighting - Exterior - 1978	20	538	8	4,304	2016	5,633
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices - 1978	30	3	12,135	32,713	2016	42,814
D5022 - Lighting Equipment	Lighting Fixtures - 1978	20	4	12,135	54,467	2016	71,284
C3030 - Ceiling Finishes	GWB Taped and Finished - 1978	30	5	28	150	2016	196
E - Equipment and Furnishings	Kitchen Cabinets - Average - 1978	20	293	10	2,932	2016	3,837
D3040 - Distribution Systems	Return Air Ductwork and Fan - 1978	20	8	600	4,837	2016	6,330

D3060 - Controls and Instrumentation	Parking Garage CO Monitor System - 2000	10	1	10,000	7,797	2016	10,204
D3050 - Terminal and Package Units	Unit Heaters - (2) Gas Fired - 1978	15	1	6,600	8,386	2016	9,833
D3040 - Distribution Systems	Exhaust Make Up Air System - Garage - 1978	25	3	8,500	24,622	2016	32,224
D5010 - Electrical Service and Distribution	Feeder - Average Service - 1978	30	2	12,135	21,013	2016	27,501
D5010 - Electrical Service and Distribution	Switchgear - Average Duty - 1978	30	0	12,135	5,309	2016	6,948
D5010 - Electrical Service and Distribution	Distribution System - Medium Capacity - 1978	30	8	8,500	71,086	2016	93,033
D3040 - Distribution Systems	Exhaust System - Tailpipe - 1978	25	3	3,500	10,139	2016	13,269
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 2006	10	1	800	960	2016	1,256
D3012 - Gas Supply System	Natural Gas Service to Bldg - 1" Feed - 1978	40	1,568	1	1,568	2018	2,249
C1030 - Fittings	Lockers - Average - 1978	40	557	10	5,574	2018	7,997
C1030 - Fittings	Toilet Partitions - 1978	40	1	12,135	13,392	2018	19,214
D3050 - Terminal and Package Units	Unit Heaters - (1) Gas Fired - 2005	15	1	3,300	4,193	2020	5,908
D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 98 gal - 2013	10	5,582	1	5,582	2023	9,028
E - Equipment and Furnishings	Public Works Equipment - 1978	20	96,530	1	96,530	2023	174,239
D5033 - Telephone Systems	Telephone System - 1978	10	3	2,500	6,975	2026	12,283
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1978	10	1	504	605	2026	1,253
C3020 - Floor Finishes	VAT - Vinyl Asbestos Tile 9" - 1978	10	4	564	2,060	2026	4,268
C3020 - Floor Finishes	Concrete - Sealed - 1978	10	1	9,412	10,144	2026	21,014
D3060 - Controls and Instrumentation	Parking Garage CO Monitor System - 2000	10	1	10,000	7,797	2026	16,152
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 2006	10	1	800	960	2026	1,989
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - 1978	50	2,545	11	27,994	2028	63,574
C1010 - Partitions	CMU Block Walls - 4" & 8" - 1978	50	11	1,764	18,963	2028	21,532
C1010 - Partitions	GWB Walls - Standard (Non-Painted) - 1978	50	5	117	563	2028	634
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - 1978	50	2	12,135	26,833	2028	60,937
D2040 - Rain Water Drainage	Roof Drainage - Gravity - 1978	50	2	12,135	21,793	2028	49,493

D5022 - Lighting Equipment	Lighting Fixtures - 2010	20	4	2,500	11,221	2030	27,935
C3010 - Wall Finishes	Paint Masonry/Epoxy Finish - Economy - 1978	15	3	12,480	41,808	2031	108,972
D3050 - Terminal and Package Units	Unit Heaters - (2) Gas Fired - 1978	15	1	6,600	8,386	2031	19,584
B2030 - Exterior Doors	Overhead Sectional Doors - Electric Operation - 2002	30	7,564	6	45,387	2032	123,860
D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 98 gal - 2013	10	5,582	1	5,582	2033	14,291
D3050 - Terminal and Package Units	Furnace - Gas Fired Residential Type - 2008	25	5	1,500	7,554	2033	21,584
B2020 - Exterior Windows	Aluminum Windows - 2005	30	68	142	9,613	2035	30,111
D3050 - Terminal and Package Units	Unit Heaters - (1) Gas Fired - 2005	15	1	3,300	4,193	2035	11,767
A - Substructure	Foundation Wall and Footings - 1978	75	151	331	50,008		
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 2006	30	2,067	2	4,134		
A - Substructure	Foundation Wall & Footings - Interior Foundation Walls - 1978	75	127	131	16,577		
B2010 - Exterior Walls	Precast Concrete Panels - 22' & 18' High 3" Insulation - 1978	75	55	9,480	524,244		
A - Substructure	Structural Slab on Grade - 6 inch - No Insulation - 1978	75	9	10,861	93,079		
B10 - Superstructure	Single-Story - Steel Beam - Precast Roof - 1978	75	31	10,861	341,008		
B10 - Superstructure	Single-Story - CMU Bearing- Precast Mezz Floor- 1978	75	31	1,176	36,923		
C20 - Stairs	Stairs - Economy - 1978	75	8,657	1	8,657		

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
B2020 - Exterior Windows	Metal Windows - 1950	30	68	208	14,238	2015	17,797
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1950	30	2,067	2	4,134	2016	5,411
B2030 - Exterior Doors	Door Assembly - 3 x 7 Wood, 1/2 glass - 1950	30	1,665	2	3,330	2016	4,358
B3015 - Roof Eaves and Soffits	Fascia - Metal soffit - 1985	30	8	152	1,143	2016	1,197
C1010 - Partitions	CMU Block Walls - Facing 2 Sides - 1950	50	17	441	7,643	2016	4,961
C1010 - Partitions	GWB Walls - Standard (Non-Painted) - 1950	50	5	415	1,996	2016	1,296
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - NR - 1950	50	2,545	4	10,180	2016	13,323
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish - 1950)	10	1	2,439	2,927	2016	3,830
C3010 - Wall Finishes	Raised Wood Paneling - Economy - 1950	25	32	1,496	47,722	2016	40,472
C3020 - Floor Finishes	Carpeting - Broadloom - Economy- 1995?	10	5	1,110	5,697	2016	7,456
C3020 - Floor Finishes	Concrete - Sealed - 1950	5	1	1,110	1,196	2016	1,566
C3030 - Ceiling Finishes	Wood Ceiling - Economy - painted - 1950	30	11	120	1,375	2016	1,800
C3030 - Ceiling Finishes	GWB Taped and Finished - 1985	30	5	1,110	5,939	2016	7,772
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1950	30	3	2,220	6,457	2016	7,572
D2020 - Domestic Water Distribution	Water Heater - Elec - Comm (SF) - 1950	15	3	2,220	7,035	2016	8,249
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - High Density - 1950	50	6	2,220	12,847	2016	16,813
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan - 1950	20	0	2,220	921	2016	1,206
D3060 - Controls and Instrumentation	Electric Controls - Average - 1950	20	1	2,220	3,240	2016	4,240
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1950	30	5	2,220	11,619	2016	15,207
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1950	30	1	2,220	1,922	2016	2,516

D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1950	30	0	2,220	694	2016	908
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1985	20	4	2,220	8,094	2016	10,593
C1030 - Fittings	Restroom Accessories - Economy - 1950	20	1	2,220	1,746	2016	2,285
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - 1950	30	2	2,220	4,904	2016	6,419
C3020 - Floor Finishes	Concrete - Sealed - 1950	5	1	1,110	1,196	2021	1,970
A - Substructure	Foundation Wall and Footings 8-Ft - Full Basement - 1950	75	271	152	41,245	2025	3,917
A - Substructure	Structural Slab on Grade - Light Industrial - 1950	75	9	1,110	9,513	2025	903
B10 - Superstructure	Multi-Story - Wood - 1950	75	12	1,110	13,631	2025	1,295
B2010 - Exterior Walls	CMU Block Walls - Painted - 1950	75	16	714	11,178	2025	2,123
C20 - Stairs	Stairs - Economy - 1950	75	10,544	1	10,544	2025	6,176
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish - 1950)	10	1	2,439	2,927	2026	6,063
C3020 - Floor Finishes	Carpeting - Broadloom - Economy- 1995?	10	5	1,110	5,697	2026	11,803
C3020 - Floor Finishes	Concrete - Sealed - 1950	5	1	1,110	1,196	2026	2,478
B2010 - Exterior Walls	Metal Siding - 1987	40	9	1,795	16,532	2027	3,442
C3020 - Floor Finishes	Concrete - Sealed - 1950	5	1	1,110	1,196	2031	3,118
D2020 - Domestic Water Distribution	Water Heater - Elec - Comm (SF) - 1950	15	3	2,220	7,035	2031	16,429
D3040 - Distribution Systems	Supply & Exhaust Forced Air Underfloor Ducted System -2012	20	6	950	6,032	2032	16,461
B30 - Roofing	Asphalt Shingled Roofing - 2014	20	5	1,110	5,377	2034	16,085
E - Equipment and Furnishings	Kitchen Cabinets - Average - 2014	20	293	10	2,932	2034	8,771
B2010 - Exterior Walls	Wood Siding - Economy - 1987	50	13	64	820		
D3020 - Heat Generating Systems	Furance, gas firect - 2012	30	3,861	1	3,861		

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:

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
B30 - Roofing	Single-Ply Membrane - Ballasted - 1990	25	12	8,091	94,490	2016	123,664
D2020 - Domestic Water Distribution	Water Dist Complete - 1978	30	3	6,192	18,010	2016	21,214
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)- 1958 & 1992	10	1	10,268	12,322	2016	16,126
C1010 - Partitions	CMU Block Walls - 12" - 1958	50	11	4,680	50,310	2016	32,922
C3030 - Ceiling Finishes	ACT System - Standard - 1958	20	6	8,287	50,551	2016	66,158
B2030 - Exterior Doors	Door Assembly - 3 x 7 Metal - 1958	30	3,151	3	9,452	2016	12,370
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1992	20	4	7,500	33,663	2016	44,057
C1010 - Partitions	Wood stud WallsOSB - Standard (Non-Painted) - 1958?	50	5	176	847	2016	550
E - Equipment and Furnishings	Fixed Casework - Average - 1958	25	270	58	15,666	2016	20,503
B2020 - Exterior Windows	Steel Windows - Basement - 1958	30	68	24	1,643	2016	2,150
C1010 - Partitions	Plaster Walls - Thin Coat - 1958?	50	1	640	544	2016	353
C3020 - Floor Finishes	VCT - Average- 1958 & 1992	10	4	14,696	53,677	2016	70,250
C3030 - Ceiling Finishes	ACT System - Deluxe - 1992	20	5	7,585	37,622	2016	49,237
B1015 - Exterior Stairs and Fire Escapes	Exterior Stairs - Concrete - 1958	50	2,680	4	10,719	2016	14,029
C1030 - Fittings	Toilet Partitions - Economy - 1958	40	0	4,160	1,791	2016	2,344
C1030 - Fittings	Restroom Accessories - 1958 - Lower Level	20	1	4,160	3,272	2016	4,282
D2010 - Plumbing Fixtures	Restroom Fixtures - 1978 - Lower Level	30	2	3,500	7,732	2016	10,119
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1978	20	4	7,500	33,663	2016	44,057
D2020 - Domestic Water Distribution	Water Heater - Gas - 40 Gal - 2006	10	3,632	1	3,632	2016	4,259

D2030 - Sanitary Waste	Sewage Ejector Pump - Simplex - 1978	15	5,248	1	5,248	2016	6,154
D3050 - Terminal and Package Units	(2) Rooftop Unitary AC - Cooling w/Gas Heat < 10 Ton - 1998	15	11	6,500	68,684	2016	89,890
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1978	30	5	15,872	83,074	2016	108,723
D5010 - Electrical Service and Distribution	Feeder - Average Service - 1978	30	2	15,872	27,484	2016	35,970
D5010 - Electrical Service and Distribution	Switchgear - Average Duty - 1978	30	0	15,872	6,944	2016	9,087
D5033 - Telephone Systems	Telephone & Data System - Average Density - 1978	10	3	6,500	18,135	2016	20,127
D2020 - Domestic Water Distribution	Water Heater - Elec - 52 Gal - 1978 - Lower Level	10	3,372	1	3,372	2016	3,954
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan - 1978	20	0	5,500	2,283	2016	2,987
D3060 - Controls and Instrumentation	Electric Thermostates - 1978	20	3	4,400	13,232	2016	15,516
E - Equipment and Furnishings	Kitchen Equipment - 1978	20	15,028	1	15,028	2016	15,735
C3010 - Wall Finishes	Ceramic Tile - 1992	25	12	620	7,277	2017	9,972
C3020 - Floor Finishes	Ceramic Tile - 1992	25	21	633	13,519	2017	18,525
D3012 - Gas Supply System	Natural Gas Service to Bldg - 1" Feed - 1978	40	1,568	1	1,568	2018	2,249
B3015 - Roof Eaves and Soffits	Fascia and Soffits, Metal - 1990	30	8	444	3,339	2020	4,201
D3040 - Distribution Systems	Exhaust System - General Building - 1992	25	1	4,500	4,796	2021	7,897
D5020 - Lighting and Branch Wiring	Lighting - Exterior - (5) - 1998	20	538	5	2,690	2021	4,430
D3060 - Controls and Instrumentation	Electric Thermostates - 2000	20	3	4,400	13,232	2021	19,522
C1020 - Interior Doors	Door Assembly - 6 x 7 Storefront - 1992?	30	6,597	1	6,597	2022	11,373
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan - 2000	20	0	7,500	3,113	2022	5,366
C1030 - Fittings	Restroom Accessories - 2000	20	1	4,160	3,272	2023	5,906
D3050 - Terminal and Package Units	Furnace with AC - Gas Fired - 1998	25	2	7,000	11,844	2023	21,378
B2020 - Exterior Windows	Aluminum Windows - Windows - 1998	30	68	48	3,250	2025	6,430
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish)- 1958 & 1992	10	1	10,268	12,322	2026	25,526
C3020 - Floor Finishes	VCT - Average- 1958 & 1992	10	4	14,696	53,677	2026	111,202
D2020 - Domestic Water Distribution	Water Heater - Gas - 40 Gal - 2006	10	3,632	1	3,632	2026	6,742

D5033 - Telephone Systems	Telephone & Data System - Average Density - 1978	10	3	6,500	18,135	2026	31,859
D2020 - Domestic Water Distribution	Water Heater - Elec - 52 Gal - 1978 - Lower Level	10	3,372	1	3,372	2026	6,259
B2030 - Exterior Doors	Door Assembly - Metal door 1/2 glass - 1998	30	4,152	6	24,911	2028	56,574
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - 1978	50	2	15,872	35,096	2028	79,703
D2040 - Rain Water Drainage	Roof Drainage - Gravity - 1978	50	2	15,872	28,505	2028	64,734
A - Substructure	Structural Slab on Grade - 4 inch - No Insulation 1958	75	9	7,936	68,012	2030	8,127
D2010 - Plumbing Fixtures	Restroom Fixtures - 2000 - Upper Level	30	2	9,000	19,883	2030	49,497
B2010 - Exterior Walls	CMU Block Walls - Painted - 1958	75	16	256	4,008	2030	958
C20 - Stairs	Stairs - Average - Concrete - 1958	75	12,686	1	12,686	2030	9,348
D2030 - Sanitary Waste	Sewage Ejector Pump - Simplex - 1978	15	5,248	1	5,248	2031	12,257
D3050 - Terminal and Package Units	(2) Rooftop Unitary AC - Cooling w/Gas Heat < 10 Ton - 1998	15	11	6,500	68,684	2031	179,024
C1030 - Fittings	Toilet Partitions - Deluxe 1992	40	3	4,160	13,894	2032	37,917
B10 - Superstructure	Multi-Story - Steel beams & Roof on CMU Bearing Walls 1958	75	30	7,963	240,160	2033	32,938
B2010 - Exterior Walls	Brick Composite Walls - CMU Backup - 1958	75	34	720	24,163	2033	6,628
C1020 - Interior Doors	Swinging Doors - 3 x 7 Wd - 1958 & 1992	50	2,097	21	44,042	2035	137,946
A - Substructure	Foundation Wall and Footings - CMU Block Full Basement - No Insulation 1958	75	427	294	125,673		
A - Substructure	Foundation Wall and Footings - No Basement CMU Blocks 1958	75	144	422	60,928		
B2010 - Exterior Walls	Metal Paneled Walls - Economy- 1998	60	8	4,155	33,988		
B2010 - Exterior Walls	EIFS Wall Panels - CMU Backup - 1998	75	19	2,543	49,309		

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.

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
C1010 - Partitions	Windows Partitions - Economy - 1950	50	54	8	431	2016	280
C1020 - Interior Doors	Swinging Doors - 3 x 7 - Half Glass- 1950	50	2,736	3	8,208	2016	10,743
C1020 - Interior Doors	Swinging Doors - 3 x 7 Wd - NR - 1950	50	2,097	1	2,097	2016	2,745
B2020 - Exterior Windows	Metal Windows - 1988	30	68	72	4,894	2016	6,405
C1010 - Partitions	GWB Walls - Standard (Non-Painted) - 1950 & 1988	50	5	952	4,579	2016	2,972
C3010 - Wall Finishes	Raised Wood Paneling - Economy - 1950 7 1988	25	32	2,976	94,934	2016	80,511
C1030 - Fittings	Lockers - Average - 1950	40	557	16	8,918	2016	11,672
C3020 - Floor Finishes	VCT - Average - 1950 & 1988	10	4	2,130	7,780	2016	10,182
C3030 - Ceiling Finishes	ACT System - Economy - 1950 & 1988	20	4	2,130	8,648	2016	11,318
C3010 - Wall Finishes	Plastic tiles - economy - 1950	10	2	36	89	2016	116
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1950	30	3	2,130	6,195	2016	7,265
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - High Density - 1950	50	6	2,130	12,326	2016	16,132
D3060 - Controls and Instrumentation	Electric Controls - Average - 1950	20	1	2,130	3,108	2016	4,068
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1950	30	5	2,130	11,148	2016	14,590
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1950	30	1	2,130	1,844	2016	2,414
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1950	30	0	2,130	666	2016	871
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1950	20	4	2,130	7,766	2016	10,164
D2020 - Domestic Water Distribution	Water Heater - Elec - Comm (SF) - 1950	15	3	2,220	7,035	2016	8,249
C1030 - Fittings	Restroom Accessories - Economy - 1950	20	1	2,130	1,675	2016	2,192
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - 1950	30	2	2,130	4,706	2016	6,158

B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1988	30	2,067	2	4,134	2018	5,931
B2030 - Exterior Doors	Door Assembly - 3 x 7 Wood, 1/2 glass - 1988	30	1,665	1	1,665	2018	2,389
B3015 - Roof Eaves and Soffits	Fascia - Metal - 1988	30	8	202	1,519	2018	1,743
C1030 - Fittings	Toilet Partitions - Average-1950	40	1	2,130	2,351	2018	3,372
D3020 - Heat Generating Systems	Furances, gas firect - ????	30	3,861	1	3,861	2018	5,539
A - Substructure	Foundation Wall and Footings - No Basement-1950 & 1988 ?	75	144	344	49,667	2025	4,717
B10 - Superstructure	Single-Story - Wood - 1950 & 1988	75	8	2,130	15,976	2025	1,517
C3020 - Floor Finishes	VCT - Average - 1950 & 1988	10	4	2,130	7,780	2026	16,117
C3010 - Wall Finishes	Plastic tiles - economy - 1950	10	2	36	89	2026	184
B2010 - Exterior Walls	Metal Siding - 1988	40	9	2,140	19,709	2028	4,297
D2020 - Domestic Water Distribution	Water Heater - Elec - Comm (SF) - 1950	15	3	2,220	7,035	2031	16,429
D3040 - Distribution Systems	Exhaust System - General Building - 2008	25	1	2,130	2,270	2033	6,486
B30 - Roofing	Metal Roofing - Economy - 2014	50	9	2,130	19,025		

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1981	30	2,067	2	4,134	2016	5,411
B2030 - Exterior Doors	Door Assembly - 3 x 7 Wood, 1/2 glass - 1981	30	1,665	2	3,330	2016	4,358
C3010 - Wall Finishes	Wood Paneling - Economy - 1981	25	32	1,480	47,212	2016	40,039
C3030 - Ceiling Finishes	ACT System - Economy - 1981	20	4	1,269	5,152	2016	6,743
B2020 - Exterior Windows	Wood Windows metal clad exterior - 1981	30	27	95	2,566	2016	3,359
C3020 - Floor Finishes	Carpeting - Broadloom - Economy - 1981	10	5	924	4,742	2016	6,207
C3020 - Floor Finishes	Concrete - sealed - 1981	5	1	345	372	2016	487
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats - 1981Finish)	10	1	800	960	2016	1,256
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1981	30	3	1,258	3,659	2016	4,291
D3060 - Controls and Instrumentation	Electric Controls - Average - 1981	20	1	1,258	1,836	2016	2,403
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1981	30	5	1,258	6,584	2016	8,617
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1981	30	1	1,258	1,089	2016	1,425
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1981	30	0	1,258	393	2016	514
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1981	20	4	1,258	4,587	2016	6,003
D2020 - Domestic Water Distribution	Water Heater - Elec - Comm (SF) - 1981	15	3	1,258	3,986	2016	4,674
C1030 - Fittings	Restroom Accessories - Economy - 1981	20	1	1,258	989	2016	1,295
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - 1981	30	2	2,220	4,904	2016	6,419
D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) - 1981	15	118	8	946	2016	1,109
C1030 - Fittings	Toilet Partitions - Average-1981	40	1	1,258	1,388	2021	2,286
C3020 - Floor Finishes	Concrete - sealed - 1981	5	1	345	372	2021	612

C3020 - Floor Finishes	Carpeting - Broadloom - Economy - 1981	10	5	924	4,742	2026	9,825
C3020 - Floor Finishes	Concrete - sealed - 1981	5	1	345	372	2026	770
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats - 1981Finish)	10	1	800	960	2026	1,989
C1020 - Interior Doors	Swinging Doors - 3 x 7 Wd - NR - 1981	50	2,097	2	4,194	2031	10,933
B2010 - Exterior Walls	Wood Siding - 1981	50	13	2,032	26,030	2031	6,513
C1010 - Partitions	CMU Block Walls - Facing 1 Side - 1981	50	14	424	6,089	2031	7,872
C1010 - Partitions	GWB Walls - Standard (Non-Painted) - 1981	50	5	376	1,809	2031	2,338
C3020 - Floor Finishes	Concrete - sealed - 1981	5	1	345	372	2031	969
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - High Density - 1981	50	6	1,258	7,280	2031	18,975
D2020 - Domestic Water Distribution	Water Heater - Elec - Comm (SF) - 1981	15	3	1,258	3,986	2031	9,310
D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) - 1981	15	118	8	946	2031	2,209
B30 - Roofing	Asphalt Shingled Roofing - 2013	20	5	1,495	7,242	2033	20,692
A - Substructure	Foundation Wall and Footings - No Basement-1981 ?	75	144	151	21,801		
B3015 - Roof Eaves and Soffits	Fascia - Wood Painted - 2013	30	8	245	1,842		
A - Substructure	Structural Slab on Grade - Non-Industria - 1981l	75	6	334	2,154		
B10 - Superstructure	Single-Story - Wood - Crawl Space-Basement - 1965	75	11	1,495	15,712		

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1954 & 1972	10	1	3,740	4,488	2016	5,8
C3020 - Floor Finishes	Concrete - Painted - 1998	5	1	1,215	1,309	2016	1,7
C3020 - Floor Finishes	VCT - Average - 1998	10	4	1,132	4,135	2016	5,4
B2015 - Balcony Walls and Handrails	Metal Pipe Railings - 1954	50	104	36	3,749	2016	4,9
E - Equipment and Furnishings	Labortory Cabinets - Average - 1972	20	293	46	13,487	2016	17,6
D3050 - Terminal and Package Units	Unit Heaters - Hot Water from Boiler - General Bldg - 1972	15	1,271	2	2,541	2016	2,9
D3040 - Distribution Systems	Perimeter Heat System - Hydronic - 1972	20	10	17,726	176,143	2016	#####
D3040 - Distribution Systems	RTU - Const Volume w/distribution - Offices & Lab - 1972	25	25,620	1	25,620	2016	33,5
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1972	30	3	6,192	18,010	2016	21,2
D5033 - Telephone Systems	Telephone & Data System - Average Density - Verify SCADA	10	3	3,276	9,140	2016	10,1
D2010 - Plumbing Fixtures	Cabinet, Counter and Sink - 1972	30	1	3,276	4,573	2016	5,9
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - Economy - 1972	30	2	1,500	3,314	2016	4,3
D5092 - Emergency Light and Power Systems	~Emergency Generator - 75kW	20	32,308	1	32,308	2016	42,2
D2010 - Plumbing Fixtures	Emergency Eyewash (Each) - 1972	30	1,802	1	1,802	2016	2,3
C3020 - Floor Finishes	Concrete - Painted - 1998	5	1	1,215	1,309	2021	2,1
D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 40 gal - 2011	10	2,463	1	2,463	2021	3,6
D3040 - Distribution Systems	Exhaust System - General Bldg - 1994	25	1	6,192	6,599	2021	10,8
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1998	20	4	3,276	14,704	2021	24,2
C1010 - Partitions	CMU Block Walls - Plain - 1954 & 1972	50	11	1,360	14,620	2022	12,5

C1010 - Partitions	Windows/Storefront Partitions - Economy - 1972	50	54	109	5,868	2022	5,0
C1010 - Partitions	CMU Walls - Glazed 1 Side - 1972	50	21	512	10,778	2022	9,2
B3021 - Glazed Roof Openings	Skylights - Dome Types - 1998	25	159	25	3,972	2023	7,1
D3044 - Hot Water Distribution	Boiler Circulating Pumps - 1.5 HP - 2003	20	1,071	2	2,143	2023	3,0
C3030 - Ceiling Finishes	ACT System - Standard - 1954, 1972 & 2014	20	6	2,016	12,298	2025	24,3
B30 - Roofing	Single-Ply Membrane - Fully Adhered EPDM 2001	25	9	2,160	19,069	2026	39,5
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1954 & 1972	10	1	3,740	4,488	2026	9,2
C3020 - Floor Finishes	Concrete - Painted - 1998	5	1	1,215	1,309	2026	2,7
C3020 - Floor Finishes	VCT - Average - 1998	10	4	1,132	4,135	2026	8,5
D5033 - Telephone Systems	Telephone & Data System - Average Density - Verify SCADA	10	3	3,276	9,140	2026	16,0
B2020 - Exterior Windows	Alum Windows - 1998	30	68	248	16,976	2028	38,5
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1998	30	2,067	5	10,336	2028	23,4
A - Substructure	Structural Slab on Grade - Heavy Industrial - 1954 & 1972	75	15	2,072	31,142	2029	3,5
C20 - Stairs	Stairs - Average - 1954 & 1972	75	12,686	2	25,373	2029	17,8
A - Substructure	Foundation Wall and Footings 16-Ft - Full Basement - 1954	75	427	142	60,699	2029	6,9
B10 - Superstructure	Multi-Story - Concrete - 1954	75	30	2,408	72,624	2029	8,2
C3020 - Floor Finishes	Concrete - Painted - 1998	5	1	1,215	1,309	2031	3,4
B3015 - Roof Eaves and Soffits	Fascia - Metal - 2001	30	8	234	1,760	2031	3,6
D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 40 gal - 2011	10	2,463	1	2,463	2031	5,7
D3050 - Terminal and Package Units	Unit Heaters - Hot Water from Boiler - General Bldg - 1972	15	1,271	2	2,541	2031	5,9
D3060 - Controls and Instrumentation	Electric Controls - Average - 2011	20	1	6,192	9,036	2031	23,5
A - Substructure	Foundation Wall and Footings - No Basement 1972	75	144	118	17,037		
B2010 - Exterior Walls	4" Concrete block face Walls - CMU Backup 2001	75	32	2,448	78,924		
C1020 - Interior Doors	Swinging Doors - 3 x 7 - Half Glass metal 1998	50	2,736	2	5,472		

C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - NR - 1998	50	2,545	1	2,545		
B10 - Superstructure	Single-Story - Concrete - Precast - 1972	75	31	956	30,016		
A - Substructure	~Foundation Wall and Footings - 1969	75	151	122	18,429		
D3020 - Heat Generating Systems	Boiler HW - Gas - XXXX MBH - (1) - 2011	30	5	3,276	17,997		
D3012 - Gas Supply System	~Natural Gas Service to Bldg - 1" Feed - 2014	40	1,568	1	1,568		

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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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1998	10	1	1,176	1,411	2016	1,847
C3020 - Floor Finishes	Concrete - Painted - 1952	5	1	600	647	2016	846
C3030 - Ceiling Finishes	ACT System - Standard - 1952	20	6	600	3,660	2016	4,790
D5010 - Electrical Service and Distribution	~Switchgear - Average Duty - 19??	30	0	600	262	2016	344
D5010 - Electrical Service and Distribution	~Distribution System - Medium Capacity - ???	30	8	600	5,018	2016	6,567
D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) - 1998	15	4,940	1	4,940	2016	5,793
D3040 - Distribution Systems	Exhaust System - General Building - 1978	25	1	600	639	2016	837
B3022 - Roof Hatches	Roof Hatch - 19??	40	1,357	3	4,071	2018	5,840
B30 - Roofing	Single-Ply Membrane - Fully Adhered EPDM 1994	25	9	600	5,297	2019	7,957
C3020 - Floor Finishes	Concrete - Painted - 1952	5	1	600	647	2021	1,065
B3015 - Roof Eaves and Soffits	Fascia - Metal soffit - 1994	30	8	98	737	2024	1,114
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1998	10	1	1,176	1,411	2026	2,924
C3020 - Floor Finishes	Concrete - Painted - 1952	5	1	600	647	2026	1,340
A - Substructure	Foundation Wall and Footings - No Basement 1952 & 1978	75	144	98	14,149	2027	1,473
A - Substructure	Structural Slab on Grade - Heavy Industrial - 1952 & 1978	75	15	600	9,018	2027	939
B10 - Superstructure	Single-Story - Concrete - Cast-in-Place - 1952	75	28	1,092	30,418	2027	3,167
B2020 - Exterior Windows	Alum Windows - 1998	30	68	33	2,259	2028	5,130
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1998	30	2,067	1	2,067	2028	4,694
D5010 - Electrical Service and Distribution	~Feeder - Average Service - 19??	30	2	600	1,039	2028	2,359
C3020 - Floor Finishes	Concrete - Painted - 1952	5	1	600	647	2031	1,685
D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) - 1998	15	4,940	1	4,940	2031	11,537
B2010 - Exterior Walls	Metal Paneled Walls - Economy- 1998	60	8	1,126	9,211		

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1952 & 1978	10	1	11,192	13,430	2016	17,577
C3020 - Floor Finishes	Concrete - Painted - 1952 & 1978	5	1	3,195	3,443	2016	4,507
C3020 - Floor Finishes	Quarry Tile - 1978	25	21	84	1,794	2016	2,348
C3020 - Floor Finishes	VCT - Average - 1952 & 1978	10	4	1,659	6,060	2016	7,930
C3030 - Ceiling Finishes	ACT System - Standard - 1952 & 1978	20	6	7,382	45,030	2016	58,933
E - Equipment and Furnishings	Kitchen Cabinets - Average - 1978	20	293	6	1,759	2016	2,302
C3030 - Ceiling Finishes	GWB Taped and Finished - 1978	30	5	96	514	2016	672
C3010 - Wall Finishes	Wood Paneling - Economy -- 1952	25	32	80	2,552	2016	2,164
D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 100 gal - 1995	10	4,926	1	4,926	2016	5,777
D2010 - Plumbing Fixtures	Restroom Fixtures - Std Density - 1978	30	3	2,300	6,515	2016	8,526
D5037 - Fire Alarm Systems	~Fire Alarm System - Average Density - ???	10	4	10,940	43,122	2016	56,436
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan - 1978	20	0	5,100	2,117	2016	2,770
D5033 - Telephone Systems	~Telephone System - Average Density - 1998	10	3	5,100	14,229	2016	15,792
D2010 - Plumbing Fixtures	Custodial/Utility Sinks - 1978	30	0	10,940	3,766	2016	4,928
C1030 - Fittings	Toilet Partitions - Average- 1978	40	1	2,300	2,538	2018	3,642
C1030 - Fittings	Lockers - Average - 1978	40	557	4	2,230	2018	3,199
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1998	20	4	10,940	49,103	2018	70,447
B30 - Roofing	Single-Ply Membrane - Fully Adhered EPDM 1994	25	9	4,958	43,771	2019	65,749
C3020 - Floor Finishes	Concrete - Painted - 1952 & 1978	5	1	3,195	3,443	2021	5,670
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - NR - 1972	50	2,545	5	12,725	2022	21,937

B2015 - Balcony Walls and Handrails	Metal Pipe Railings - 1972	50	104	596	62,061	2022	106,994
D3050 - Terminal and Package Units	Unit Heaters - Hot Water from Boiler	15	2,541	4	10,165	2022	15,701
C1020 - Interior Doors	Swinging Doors - 3 x 7 - Half Glass - 1972	50	2,736	5	13,680	2022	23,585
D3040 - Distribution Systems	Exhaust System - General Building - 1998	25	1	10,940	11,659	2023	21,044
B30 - Roofing	Gutters and Downspouts - Aluminum - 1998	25	8	80	660	2023	1,192
B3021 - Glazed Roof Openings	Skylights - 1994	30	131	225	29,549	2024	55,844
B3015 - Roof Eaves and Soffits	Fascia - Metal soffit - 1994	30	8	378	2,843	2024	4,298
D3040 - Distribution Systems	Perimeter Heat System - Hydronic - 2007	18	10	10,940	108,710	2025	192,733
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) - 1952 & 1978	10	1	11,192	13,430	2026	27,824
C3020 - Floor Finishes	Concrete - Painted - 1952 & 1978	5	1	3,195	3,443	2026	7,134
C3020 - Floor Finishes	VCT - Average - 1952 & 1978	10	4	1,659	6,060	2026	12,553
D2020 - Domestic Water Distribution	Water Heater - Gas - (1) 100 gal - 1995	10	4,926	1	4,926	2026	9,145
D5037 - Fire Alarm Systems	~Fire Alarm System - Average Density - ???	10	4	10,940	43,122	2026	89,335
D5033 - Telephone Systems	~Telephone System - Average Density - 1998	10	3	5,100	14,229	2026	24,997
A - Substructure	Foundation Wall and Footings - No Basement 1952 & 1978	75	144	648	93,558	2027	9,741
A - Substructure	Structural Slab on Grade - Heavy Industrial - 1952 & 1978	75	15	6,070	91,232	2027	9,499
B10 - Superstructure	Multi-Story - Concrete 1952 & 1978	75	30	6,158	185,722	2027	19,336
B2010 - Exterior Walls	4" Concrete block face Walls - CMU Backup 1952 - 1978	75	32	5,563	179,351	2027	37,346
C20 - Stairs	Stairs - Average - 1952 & 1978	75	12,686	2	25,373	2027	16,290
D3060 - Controls and Instrumentation	DDC Control System - 2007	20	4	5,500	22,715	2027	44,146
D3044 - Hot Water Distribution	Boiler Circulating Pumps - 2007	20	4,416	2	8,831	2027	15,324
B2020 - Exterior Windows	Alum Windows - 1998	30	68	460	31,487	2028	71,507
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1998	30	2,067	6	12,403	2028	28,167

B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation- 1998	30	3,163	1	3,163	2028	7,182
C1010 - Partitions	CMU Block Walls - Plain - 1952 & 1978	50	11	2,282	24,532	2028	27,633
C1010 - Partitions	Poured Concrete reinforced walls 1952 & 1978	50	28	5,508	155,931	2028	175,644
C1010 - Partitions	Windows/Storefront Partitions - Economy - 1952 & 1978	50	54	42	2,261	2028	2,547
D2020 - Domestic Water Distribution	Water Dist Complete - 1998	30	3	10,940	31,820	2028	64,748
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - High Density - 1952 & 1978	50	6	5,500	31,828	2028	72,280
D5010 - Electrical Service and Distribution	~Distribution System - Heavy Capacity - 1998	30	11	10,940	123,559	2028	280,602
D5010 - Electrical Service and Distribution	~Feeder - Heavy Service - 1998	30	4	10,940	43,275	2028	98,278
D5010 - Electrical Service and Distribution	~Switchgear - Heavy Duty - 1998	30	1	10,940	6,837	2028	15,527
D5011 - High Tension Service and Dist.	~Main Electrical Service - 800A 27.7kV - 1998	30	378,602	1	378,602	2028	859,804
C3020 - Floor Finishes	Concrete - Painted - 1952 & 1978	5	1	3,195	3,443	2031	8,975
D5092 - Emergency Light and Power Systems	~Emergency Generator - Large 500kW	20	113,692	1	113,692	2035	356,100
B2010 - Exterior Walls	Metal Paneled Walls - Economy- 1978	60	8	153	1,252		
D3012 - Gas Supply System	Natural Gas Service to Bldg - 2" Feed (Each) - 2015	40	2,335	1	2,335		
D3020 - Heat Generating Systems	Boiler Gas HW - 2007	30	3	10,940	30,050		
D2040 - Rain Water Drainage	Roof Drainage - Gravity - 1998	50	2	7,532	13,527		

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
B2020 - Exterior Windows	Alum Windows - 1982	30	68	64	4,381	2016	5,733
C3020 - Floor Finishes	Concrete - sealed - 1982	5	1	1,840	1,983	2016	2,595
C3030 - Ceiling Finishes	Metal Paneled System - 1982	25	13	1,840	23,313	2016	30,511
B2030 - Exterior Doors	Overhead Sectional Doors - Electric Operation - 1982	30	10,631	1	10,631	2016	13,914
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1982	30	5	3,680	19,261	2016	25,208
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1982	30	1	3,680	3,186	2016	4,170
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1982	30	0	3,680	1,150	2016	1,505
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1982	20	4	2,500	9,115	2016	11,929
C3020 - Floor Finishes	Concrete - sealed - 1982	5	1	1,840	1,983	2021	3,265
C1030 - Fittings	Lockers - Average - 1982	40	557	3	1,672	2022	2,883
C3020 - Floor Finishes	Concrete - sealed - 1982	5	1	1,840	1,983	2026	4,108
B10 - Superstructure	Single-Story - Steel Framed Roof on Bearing Walls - 1982	75	6	3,680	21,970	2027	2,287
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1998	30	2,067	2	4,134	2028	9,389
D3050 - Terminal and Package Units	Unit Heaters - Gas Fired - 2015	15	1	1,500	1,906	2030	4,251
C3020 - Floor Finishes	Concrete - sealed - 1982	5	1	1,840	1,983	2031	5,169
B30 - Roofing	Metal Roofing - Economy - 1982	50	9	3,680	32,870	2032	89,702
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - NR - 1982	50	2,545	1	2,545	2032	6,945
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch to French Drain - (1) Flr Drain - 1982	50	1	1,500	2,069	2032	5,647
A - Substructure	Foundation Wall and Footings - No Basement 1982	75	144	252	36,384		
A - Substructure	Structural Slab on Grade - Heavy Industrial - 1982	75	15	3,680	55,310		
B2010 - Exterior Walls	Metal Paneled Walls - Economy- 1982	60	8	5,136	42,012		
C20 - Stairs	Stairs - Economy - 1982	75	10,544	1	10,544		

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

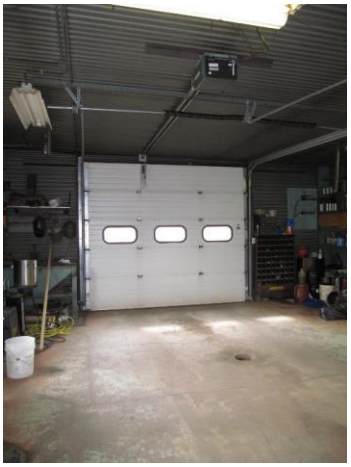
The City of Silver Bay contracted with CR-BPS to perform a building assessment of the Water Treatment Tool House structure located at Lakeview Drive. The building gross area is approximately 1,092 square feet, it is a single story structure built in 1952. Improvements occurred in 1994 and 1998. Major 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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.



System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
C3020 - Floor Finishes	Concrete - Painted - 1952	5	1	1,092	1,177	2016	1,540
C1030 - Fittings	Lockers - Average - 1952	40	557	6	3,344	2016	4,377
C3030 - Ceiling Finishes	Metal Paneled System - 1952	25	13	1,092	13,836	2016	18,107
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1952	30	5	1,092	5,716	2016	7,480
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1952	30	1	1,092	945	2016	1,237
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1952	30	0	1,092	341	2016	447
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1952	20	4	1,092	3,981	2016	5,211
D3050 - Terminal and Package Units	Unit Heaters - Gas Fired - 1952	15	1	1,092	1,387	2016	1,627
C3020 - Floor Finishes	Concrete - Painted - 1952	5	1	1,092	1,177	2021	1,938
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation- 1994	30	3,163	1	3,163	2024	5,977
B3015 - Roof Eaves and Soffits	Fascia - Metal soffit - 1994	30	8	136	1,023	2024	1,546
C3020 - Floor Finishes	Concrete - Painted - 1952	5	1	1,092	1,177	2026	2,438
A - Substructure	Foundation Wall and Footings - No Basement 1952	75	144	136	19,636	2027	2,044
A - Substructure	Structural Slab on Grade - Heavy Industrial - 1952	75	15	1,092	16,413	2027	1,709
B10 - Superstructure	Single-Story - Steel Framed Roof on Bearing Walls - 1952	75	6	1,092	6,519	2027	679
B2020 - Exterior Windows	Alum Windows - 1998	30	68	108	7,393	2028	16,789
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1998	30	2,067	1	2,067	2028	4,694
C3020 - Floor Finishes	Concrete - Painted - 1952	5	1	1,092	1,177	2031	3,068
D3050 - Terminal and Package Units	Unit Heaters - Gas Fired - 1952	15	1	1,092	1,387	2031	3,240
D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch to ???? - (1) Flr Drain - 1982	50	1	1,500	2,069	2032	5,647
B2010 - Exterior Walls	Metal Paneled Walls - Economy- 1978	60	8	1,632	13,350		
B30 - Roofing	Metal Roofing - Economy - 1994	50	9	1,092	9,754		
D2020 - Domestic Water Distribution	Water Dist Complete - Low Volume - 1952	30	2	0	0		

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

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
B2020 - Exterior Windows	Steel Windows - 1957	30	68	48	3,286	2016	4,300
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1957	30	2,067	1	2,067	2016	2,705
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation 1957	30	3,163	1	3,163	2016	4,139
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1957	30	5	2,000	10,468	2016	13,700
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1957	30	1	2,000	1,732	2016	2,266
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1957	30	0	2,000	625	2016	818
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1957	20	4	2,000	7,292	2016	9,543
B2010 - Exterior Walls	Metal Paneled Walls - Economy- 1957	60	8	3,360	27,485	2017	3,615
A - Substructure	Structural Slab on Grade - Light Industrial - 1957	75	9	2,000	17,140	2018	1,180
B10 - Superstructure	Single-Story - Steel Framed Roof on Bearing Wall - 1957	75	6	3,360	20,059	2025	1,905
A - Substructure	Foundation Wall and Footings - No Basement - 1957	75	144	210	30,320	2030	3,623

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.

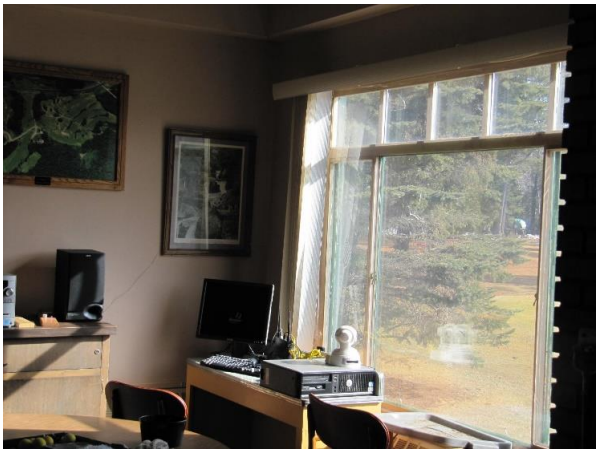
The Facility Condition Index (FCI) for this building is **.68** which indicates that 68% of the replacement value of the building ($693,536) is needed to bring the building up to like new condition. An **FCI of .68 is considered to be an unsatisfactory condition** hence a major rehabilitation and or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



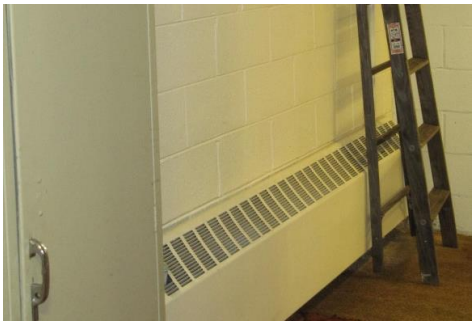
C. **B2030 – Exterior Doors:** System was installed in 1957 and are in poor condition. Renewal Cost: $21,190.

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
B1015 - Exterior Stairs and Fire Escapes	Exterior Stairs - Steel - 1957	50	7,104	1	7,104	2016	9,297
B2020 - Exterior Windows	Steel Windows - 1957	30	68	374	25,600	2016	33,504
B2020 - Exterior Windows	Wood Windows - casements - 1990	30	27	320	8,645	2016	11,314
C1030 - Fittings	Restroom Accessories - Average - 1957	25	1	6,080	5,602	2016	7,331
C1030 - Fittings	Toilet Partitions - Average - 1957	40	1	6,080	6,710	2016	8,782
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish- 1957)	10	1	8,080	9,696	2016	12,690
C3010 - Wall Finishes	Raised Wood Paneling - Economy - 1990	25	32	1,798	57,356	2016	48,642
C3020 - Floor Finishes	Carpeting - Broadloom - Medium Range - 1957 & 1990	10	6	4,117	25,989	2016	34,013
C3020 - Floor Finishes	Ceramic Tile - 1957 & 1990	25	17	470	8,003	2016	10,474
C3020 - Floor Finishes	VCT - Average - 12" x 12" - 1990	10	4	88	321	2016	421
C3020 - Floor Finishes	Wood Flooring - Average - 1957	25	14	120	1,707	2016	2,234
C3030 - Ceiling Finishes	ACT System - Standard - 1957 & 1990	20	6	2,001	12,206	2016	15,975
D2020 - Domestic Water Distribution	Water Dist Complete - Average - 1957	30	3	1,957	5,692	2016	6,675
D2020 - Domestic Water Distribution	Water Heater - (2) 50 Gal Electric - 2005	15	1	6,080	4,659	2016	6,098
D3040 - Distribution Systems	Exhaust System - Restroom w/Roof Fan - 1957	20	0	6,080	2,523	2016	3,302
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1957	30	5	6,080	31,823	2016	41,648
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1957	30	1	6,080	5,264	2016	6,889
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1957	30	0	6,080	1,900	2016	2,486
D5033 - Telephone Systems	Telephone System - Light Density - 1957	10	2	1,500	2,790	2016	3,096

E - Equipment and Furnishings	Fixed Casework - Average - 1990	25	270	20	5,402	2016	7,070
E - Equipment and Furnishings	Kitchen Cabinets - Average - 1957	20	293	33	9,676	2016	12,663
E - Equipment and Furnishings	Kitchen Equipment - Average - 1990	20	33,839	1	33,839	2016	44,286
B2010 - Exterior Walls	Metal Paneled Walls - Economy on CMU backing 1957	60	8	1,577	12,900	2016	1,621
B2010 - Exterior Walls	Wood Siding - Economy - 1957	50	13	900	11,529	2016	1,449
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1957	30	2,067	3	6,201	2016	8,116
B2030 - Exterior Doors	Door Assembly - 3 x 7 Wood, 1/2 glass - 1957	30	1,665	6	9,989	2016	13,074
B3015 - Roof Eaves and Soffits	Fascia and Soffits - wood Fascia, Metal soffit - 1957	30	8	815	6,129	2016	6,417
C1010 - Partitions	CMU Block Walls - Facing 2 Sides - 1957	50	17	620	10,745	2016	6,975
C1010 - Partitions	GWB 2HR Rated Walls-Metal studs - 1957	50	7	2,060	14,399	2016	9,347
C3020 - Floor Finishes	Concrete - Painted - 1957	5	1	331	357	2016	467
C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - Rated	50	4,626	2	9,252	2016	12,108
C1020 - Interior Doors	Swinging Doors - 3 x 7 Hollow Wd - NR - 1957	50	2,097	13	27,264	2016	35,682
C3010 - Wall Finishes	Paint Masonry/Epoxy Finish - Economy - 1957	15	3	380	1,273	2016	1,666
C1030 - Fittings	Lockers - Average - 1957	40	557	93	51,838	2016	67,843
D3040 - Distribution Systems	Perimeter Heat System - Hydronic - 1957	20	10	4,500	44,716	2016	52,436
D2010 - Plumbing Fixtures	Restroom Fixtures - 1957	30	3	6,080	20,858	2016	27,298
D3040 - Distribution Systems	AHU 1 - Const Volumn w/distribution - 1957	25	26,438	1	26,438	2016	34,601
D5022 - Lighting Equipment	Lighting Fixtures - Average Density - 1957	20	4	6,080	27,290	2016	35,715
D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices - Average Density - 1957	30	3	6,080	16,390	2016	21,451
D2020 - Domestic Water Distribution	Water Well - Average Depth - 1957	25	16,683	1	16,683	2016	17,467
D3040 - Distribution Systems	Exhaust System - Kitchen - Rangehood & MAU -1957	15	14,412	1	14,412	2016	18,861
D2030 - Sanitary Waste	Sanitary Waste - Septic System - 1957	50	15,707	1	15,707	2016	20,556
C3030 - Ceiling Finishes	GWB Taped and Finished - 1990	30	5	226	1,209	2020	1,902
B2010 - Exterior Walls	Glass Block Windows 1957	75	51	160	8,130	2020	1,227
C3020 - Floor Finishes	Concrete - Painted - 1957	5	1	331	357	2021	587

D5038 - Security and Detection Systems	Security System - Light Density - 2012	10	1	6,080	5,852	2022	10,089
B10 - Superstructure	Multi-Story - Wood - 1957	75	12	904	11,101	2025	1,054
A - Substructure	Foundation Wall and Footings - Full Basement - 1957	75	427	462	197,487	2025	18,757
B10 - Superstructure	Single-Story - Wood - floor framing 1957	75	8	3,456	25,922	2025	2,462
C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish- 1957)	10	1	8,080	9,696	2026	20,087
C3020 - Floor Finishes	Carpeting - Broadloom - Medium Range - 1957 & 1990	10	6	4,117	25,989	2026	53,840
C3020 - Floor Finishes	VCT - Average - 12" x 12" - 1990	10	4	88	321	2026	666
D5033 - Telephone Systems	Telephone System - Light Density - 1957	10	2	1,500	2,790	2026	4,901
C3020 - Floor Finishes	Concrete - Painted - 1957	5	1	331	357	2026	739
D3060 - Controls and Instrumentation	Electric Controls - Average - 2008	20	1	6,080	8,872	2028	20,149
D2020 - Domestic Water Distribution	Water Heater - (2) 50 Gal Electric - 2005	15	1	6,080	4,659	2031	12,144
C3020 - Floor Finishes	Concrete - Painted - 1957	5	1	331	357	2031	930
C3010 - Wall Finishes	Paint Masonry/Epoxy Finish - Economy - 1957	15	3	380	1,273	2031	3,318
D3040 - Distribution Systems	Exhaust System - Kitchen - Rangehood & MAU -1957	15	14,412	1	14,412	2031	37,564
A - Substructure	Structural Slab on Grade - Light Industrial - 1957	75	9	3,456	29,618	2032	3,880
C20 - Stairs	Stairs - Average - wood - 1957	75	12,686	2	25,373	2032	20,496
D5038 - Security and Detection Systems	Security System - Light Density - 2012	10	1	6,080	5,852	2032	15,970
D3020 - Heat Generating Systems	Boiler HW - Gas - - (1) - 2002	30	9	6,080	55,668	2032	121,534
B30 - Roofing	Asphalt Shingled Roofing - 2014	20	5	3,536	17,128	2034	51,240
D3012 - Gas Supply System	Natural Gas Service to Bldg - 1" Feed - 1995	40	1,568	1	1,568	2035	4,910
D3020 - Heat Generating Systems	~Fireplace - Propane fueled insert - 2008	35	5,888	1	5,888	2035	14,754
D5037 - Fire Alarm Systems	~Fire Alarm System - Light Density	10	3	0	0		
D3040 - Distribution Systems	Mini Split - 2008	30	3,562	2	7,123		
D2010 - Plumbing Fixtures	Custodial/Utility Sinks - 1957	30	0	6,080	2,093		

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
B2020 - Exterior Windows	Transluscent Panel Openings - 1957	30	40	30	1,188	2016	1,554
B2020 - Exterior Windows	Steel Windows - 1957	30	68	64	4,381	2016	5,733
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM -1957	30	2,067	1	2,067	2016	2,705
B30 - Roofing	Metal Roofing - Economy - 1957	50	9	1,260	11,254	2016	14,729
C1010 - Partitions	Wood Stud Walls w/ unfinished plywood - 1957	50	5	224	1,077	2016	699
C1020 - Interior Doors	Swinging Doors - 3 x 7 - Half Glass-1957	50	2,736	1	2,736	2016	3,581
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1957	30	5	1,260	6,595	2016	8,631
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1957	30	1	1,260	1,091	2016	1,428
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1957	30	0	1,260	394	2016	515
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1957	20	4	1,260	4,594	2016	6,012
B2010 - Exterior Walls	Metal Paneled Walls - Economy-1957	60	8	1,360	11,125	2017	1,463
A - Substructure	Structural Slab on Grade - Light Industrial - 1957	75	9	1,260	10,798	2030	1,290
B10 - Superstructure	Single-Story - Steel Framed Roof on Bearing Wall - 1957	75	6	1,260	7,522	2030	899
A - Substructure	Foundation Wall and Footings - No Basement - 1957	75	144	166	23,967	2030	2,864

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.

1.2 Priority Level 1-Currently Critical Deficiencies – Action YR 2015-2020

The following table is a 20 year outlook, listing all the systems that needed to be renewed in the year they are due, based on age and conditions. Hence in addition to any super critical items listed separately, the table includes all the other systems that are due to be renewed in 2015. At the top of the table is a summary of the renewal cost for all items due in the first five years.

System	System Name	Lifetime (Years)	Unit Cost	Quantity	Replacement Cost	Renewal Action FY	Renewal Action Cost
D5022 - Lighting Equipment	Lighting Fixtures - Light Density - 1993	20	4	2,432	8,867	2016	11,605
B2020 - Exterior Windows	Steel Windows - 1993	30	68	24	1,643	2023	2,965
B2030 - Exterior Doors	Door Assembly - 3 x 7 HM - 1993	30	2,067	1	2,067	2023	3,731
B2030 - Exterior Doors	Overhead Rolling Doors - Manual Operation 1993	30	3,163	1	3,163	2023	5,709
C3030 - Ceiling Finishes	Unfinished Plywood Ceiling - 1993	30	5	2,432	13,011	2023	23,486
D5010 - Electrical Service and Distribution	Distribution System - Light Capacity - 1993	30	5	2,432	12,729	2023	22,976
D5010 - Electrical Service and Distribution	Feeder - Light Service - 1993	30	1	2,432	2,106	2023	3,801
D5010 - Electrical Service and Distribution	Switchgear - Light Duty - 1993	30	0	2,432	760	2023	1,372
D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) - 2010	15	4,940	2	9,880	2025	17,517
C1030 - Fittings	Lockers - Average - 1993	40	557	3	1,672	2033	4,778
A - Substructure	Structural Slab on Grade - Light Industrial - 1993	75	9	2,432	20,842		
C20 - Stairs	Stairs - Average - wood - 1993	75	12,686	1	12,686		
C1020 - Interior Doors	Swinging Doors - 3 x 7 Hollow Wd - NR - 1993	50	2,097	1	2,097		
A - Substructure	Foundation Wall and Footings - No Basement - 1993	75	144	204	29,454		
B10 - Superstructure	Single-Story - Wood - 1993	75	8	3,648	27,362		
B2010 - Exterior Walls	Metal Paneled Walls - Economy- 1993	60	8	3,264	26,700		
B30 - Roofing	Metal Roofing - Economy - 1993	50	9	2,432	21,723		
C1010 - Partitions	Wood Stud Walls w/ unfinished plywood - 1993	50	5	640	3,078		