Facilities Condition Assessment Program

Port of Milwaukee Analysis Update

August 2012

Port of Milwaukee Update

Summary

Facilities Development and Management (FDM) is in progress of conducting condition assessment and capital budgeting recommendations for the Port of Milwaukee (PoM). FDM is providing the Facilities Condition Assessment Program (FCAP) service to PoM infrastructure.

Data collection began in January 2012 and largely concluded in June 2012. Data collection involved:

1. Onsite meetings with PoM
2. Transfer of PoM asset inventory
3. Onsite facility evaluations and condition assessments

The PoM FCAP service is a comprehensive and complex infrastructure analysis that includes all assets that meet the established guidelines of capital improvement component, as published February 10, 2011, in DPW FCAP Update (pg. 5-6 Component Categorization), and summarized below:

1. PoM owned property
2. Limited Useful Life (UL) expectancy
3. Predictable (RUL) expectancy
4. Greater than $5,000 minimum threshold
5. Requirements by local codes/statues.

Project Status

PoM FCAP is in mid-development at this time and progress is included as attachment to this update. The FCAP system was augmented/restructured to organize and categorize the significant quantity of site features at PoM. The follow categories are included in the analysis:

1. Buildings
2. Dock Walls
3. Dredging
4. Roads
5. Rail Roads
6. Water Distribution
7. Water Management
8. Vehicles and Equipment

In addition to FDM and PoM internal asset evaluation, a significant portion of assets are evaluated (condition assessed) by outside consultants. As a result, the project scheduling and FCAP report development requires reference to many documents/sources.

Port of Milwaukee Update

The following table indicates project status for each asset category and the critical path task:

	Electronic Organization	Component Inventory	Condition Assessment	Project Scheduling	Reporting
Buildings	Finished	Finished	Partial	Partial	Partial
Dock Walls	Finished	Finished	Consultant		
Dredging	Finished	Finished			
Roads	Finished	Finished	Finished	Partial	Partial
Rail Roads	Finished	Finished			
Water Distribution	Finished	Partial	N/A		
Water Management	Finished	Partial			
Vehicles and Equip-ment	Finished	Partial		Partial	

Portfolio (combined) preliminary reports are anticipated to be completed prior to 2014 budget requests.

Port Summary	20 Year Total Cost	CRDM	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Projected Capital Improvements Per Year																	
Facility																	
Advanced Boiler & Tank Building	$0																
Bradford Building #1	$909,000		$0	$0	$0	$65,000	$16,000	$0	$17,000	$0	$18,000	$0	$0	$0	$0	$0	$0
Bradford Building #2	$909,000		$0	$0	$0	$65,000	$16,000	$0	$17,000	$0	$18,000	$0	$0	$0	$0	$0	$0
Coil Warehouse Building	$2,827,000		$0	$0	$0	$218,000	$29,000	$0	$31,000	$0	$32,000	$0	$34,000	$0	$36,000	$0	$0
Dock Office Building	$0																
Ferry Terminal Building	$0																
General Cargo Terminal #2	$0																
General Cargo Terminal #3	$0																
General Cargo Termianl #3A	$0																
General Cargo Terminal #4	$0																
General Cargo Terminal #4A	$0																
Gillen	$0																
IMC Salt Office	$272,000		$0	$0	$0	$0	$0	$83,000	$0	$0	$0	$9,000	$0	$14,000	$0	$0	$82,000
Milwaukee Bulk Terminal	$1,050,000	$5,000	$5,000			$198,000		$258,000			$340,000		$19,000		$52,000	$8,000	
North American Salt Company	$769,000	$44,000	$44,000		$26,000	$51,000	$29,000	$49,000	$14,000	$58,000				$222,000	$43,000	$25,000	$86,000
Port Administration Building	$0																
Port Maintenance Building	$0																
Sea Scout Building #1	$86,000	$21,000	$21,000				$18,000	$13,000									
Sea Scout Building #2	$97,000				$29,000												$68,000
Seaman's Club Building	$384,000				$5,000		$31,000			$64,000				$142,000			
Spraypainting/Sandblasting Shed	$141,000	$26,000	$26,000						$110,000								
Totals	$7,444,000	$96,000	$96,000		$60,000	$597,000	$139,000	$403,000	$189,000	$122,000	$408,000	$9,000	$53,000	$378,000	$131,000	$33,000	$236,000

Site Features																	
Facility																	
Advanced Boiler & Tank Building	$0																
Bradford Buildings and Coil Warehouse	$1,377,000				$327,000					$460,000					$426,000		
Dock Office Building	$0																
Ferry Terminal Building	$0																
General Cargo Terminal #2	$0																
General Cargo Terminal #3 - 4A	$0																
Gillen	$0																
IMC Salt Office	$232,000																
Milwaukee Bulk Terminal	$657,000						$277,000									$380,000	
North American Salt Company	$135,000										$28,000						
Port Administration Building	$0																
Port Maintenance Building	$0																
Sea Scout Buildings	$226,000		$89,000							$36,000			$7,000		$14,000		
Seaman's Club Building	$35,000							$15,000									$20,000
Totals	$2,662,000																

Roads																	
Project Shedules Under Development																	
Component Inventory Received																	
Condition Assessments Analyzed																	
Storm Water Management																	
Dock Walls																	
Water Distribution																	
Vehicles and Equipment																	
Rail Roads																	
Total 20 Year Cost	$10,106,000	$96,000	$96,000	$0	$60,000	$597,000	$139,000	$403,000	$189,000	$122,000	$408,000	$9,000	$53,000	$378,000	$131,000	$33,000	$236,000

XXXX/2012

FACILITIES CONDITION ASSESSMENT PROGRAM

BRADFORD AND COIL BUILDINGS

Facilities Development | Management

Contents

Executive Summary

Property Analysis Summary

Bradford and Coil Buildings are located at the north central portion of the Port of Milwaukee. It is located at 1225 S. Lincoln Memorial Drive and is between South Harbor Drive to the west and Lincoln Memorial Drive to the east. The warehouses were constructed in 1994/1998 and comprises of a total of 80,000 square feet.

Bradford and Coil Buildings Information				
Building Name	Year Built/Age	Square Feet	CRV	FCI/Rating
Bradford 1	1994/18	15,000	$965,000	0.00/Good
Bradford 2	1994/18	15,000	$965,000	0.00/Good
Coil Warehouse	1998/14	50,000	$2,500,000	0.00/Good

Near term projects are those that are anticipated with the first six years of the funding analysis. These projects are defined by priority. High priority projects are those that require capital expenditures for remediation within two years. Moderate priority projects are those that require capital expenditures from three- to six-years. Low priority projects are those that require capital expenditures beyond six years. Subsequent facility inspections will adjust the anticipated priorities. The following table summarizes the anticipated high and medium priority projects at Coil and Bradford Buildings.

Priority	Year	Near Term Projects
High	**1**	Interior – Floor Replacement Control – Building Automation System Electrical – Primary Upgrades, Emergency Generator Replacement Site – Asphalt Pavement Maintenance
	2	
Medium	**3**	Coil Warehouse, Site – Asphalt Pavement, Phased
	4	Bradford 1, Interior – Asphalt Pavement Bradford 2, Interior – Asphalt Pavement Coil Warehouse, Interior – Asphalt Pavement
	5	Bradford 1, Exterior – Garage Doors, Phased Bradford 2, Exterior – Garage Doors, Phased Coil Warehouse – Garage Doors, Phased
	6	

Annual expenditures for the Coil and Bradford Buildings vary from year– to –year as indicated from the graph below.

ADD ANNUAL EXPENDITURE GRAPH HERE

The most significant category of Coil and Bradford Buildings expenditures pertains to **building envelope** repairs as shown below.

ADD PIE CHART HERE

Component Inventory

The property components at Coil and Bradford Buildings are categorized as follows:

Bradford 1 & 2 Buildings Capital Expenditures

Building Envelope Components

- Doors, Garage, Phased
- Roofs, Metal
- Siding, Metal

Building Interior Components

- Asphalt Pavement
- Light Fixtures, Replacement

Electrical Components

- Electrical, Upgrades

Coil Warehouse Capital Expenditures

Building Envelope Components

- Doors, Garage, Phased
- Gutters and Downspouts
- Roofs, Metal

- Siding, Metal

Building Interior Components

- Asphalt Pavement
- Light Fixtures, Replacement

Electrical Components

- Electrical, Upgrades

Site Features

- Asphalt Pavement, Phased
- Electrical, Transformer
- Fence Replacement

O+M Responsibility

- Paint Finishes
  - Exterior Components
  - Touch-Up
- Unit Heaters
- Other Items Normally Funded by O+M

Long Lived

- Foundation
- Structural Frame

Others Responsibility

Maintenance Items

The facility inspection/consultants reports observed deficiencies that require maintenance repairs/attention. Timely remediation will minimize the cost for remediation. Whereas, deferred maintenance may result in exacerbation of deterioration and more costly future repairs.

Building Envelope

1) Roof Repairs
   i. All Buildings

Site Features

2) Asphalt Pavement

i. Crack repair, patch , and seal coat

Bradford 1

Envelope Components

Doors, Garage

Bradford 1 includes three overhead garage doors. The inspection reveals that the east door contains damaged and rusted panels. The south door was closed and appeared in good condition, and its location adjacent to the Bradford 2 building indicates the likelihood of low use. The west door appears to be heavily used and in satisfactory condition, although the door frame was damaged presumably by vehicle and freight movement.

The useful life of garage doors in this capacity is up to 15 years. Port of Milwaukee should plan for phased replacement of one garage door and operator every two years from 2016 through 2020, and again beginning by 2031.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
20’ x 22’	3	Varies	18	4	20XX

West overhead door with high use

East overhead door with damage and rust

Roof, Metal

Bradford 1 includes a 160 square metal roof. The roofs are inspected and maintained by a third party. The last inspection occurred in 2012 where the roofs are indicated to be in fair condition. The inspection revealed the onset of rust at the roof edges and flashing. Additionally, the southwest corner was reported as damaged.

The useful life of metal roofs is up to 35 years. Its replacement is anticipated by 2030. Near term maintenance should be funded from the operating budget.

Inventory (SQ)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Metal Roof	160	5	18	18	20XX

Roof overview

Rusted roof section – O+M repair

Damaged roof section

Rusted flashing

Siding, Metal

Bradford 1 contains 15,000 square feet of corrugated siding. The siding is at an age of 18 years. The inspection revealed isolated occurrences of damaged/bent siding mostly concentrated around overhead and service doors. The damage is consistent with the age and use of the facility. The useful life of exterior siding is up to 40 years. Port of Milwaukee should anticipate its replacement by 2032.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Siding	15,000	6	18	20	20XX

Damaged siding at west elevation

Damaged siding at doors at west elevation

Rusted metal fasters at siding

Damaged siding at east elevation

Interior Components

Asphalt Pavement

Bradford 1 includes a 1,670 square yards of on grade asphalt pavement within the building. Port of Milwaukee representatives report that the asphalt pavement experiences periodic settlement.

The useful life of interior asphalt pavement is up to 40 years. Port of Milwaukee should conduct interim repairs from the O+M budget as needed. Large replacements are considered capital expenditures. Therefore, the condition of the pavement should be monitored annually to prepare for capital repairs.

Inventory (SY)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt Pavement	1,670	6	18	3	20XX

Asphalt pavement

Pavement overlay at building perimeter

Light Fixtures

Bradford 1 interior includes 18 pendant light fixtures that are original to the building. Port of Milwaukee should replace the light fixtures by 2032.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Light Fixtures	18	7	18	20	20XX

Interior photograph – note light fixtures

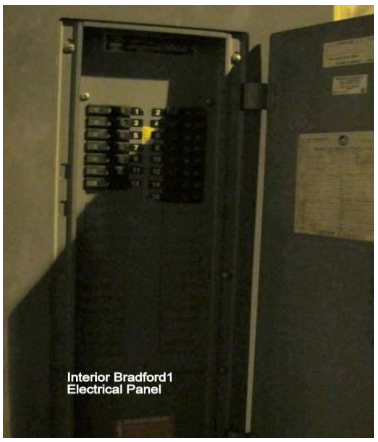
Electrical Components

Electrical

Bradford 1 electrical components include a revenue meter and a service panel. These components are at an age of 18 years and are reported in good condition. Port of Milwaukee should anticipate replacement of these components by 2032.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Revenue Meter	1	7	18	20	20XX
Service Panel	1	7	18	20	20XX

Revenue meters



Service panel

Bradford 2

Envelope Components

Doors, Garage

Bradford 2 includes three overhead garage doors. The north door was closed and appeared in good condition, and its location adjacent to the Bradford 1 building indicates the likelihood of low use. The west door appears to be heavily used and in satisfactory condition, although the lower door frame was damaged presumably by vehicle/freight movement.

The useful life of garage doors in this capacity is up to 15 years. Port of Milwaukee should plan for phased replacement of one garage door and operator every two years from 2016 through 2020, and again beginning by 2031.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
20’ x 22’	3	Varies	18	4	20XX

West overhead door with lower door frame damage

West overhead door with high usage

Roof, Metal

Bradford 2 includes a 160 square metal roof. The roofs are inspected and maintained by a third party. The last inspection occurred in 2012 where the roofs are indicated to be in fair condition. The inspection revealed the onset of rust at the roof edges and flashing. Additionally, the northeast corner was reported as damaged.

The useful life of metal roofs is up to 35 years. Its replacement is anticipated by 2030.

Inventory (SQ)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Metal Roof	160	5	18	18	20XX

Roof overview

Rusted roof section – O+M repair

Damaged roof section

Rusted flashing

Siding, Metal

Bradford 2 contains 15,000 square feet of corrugated siding. The siding is at an age of 18 years. The inspection revealed isolated occurrences of damaged/bent siding mostly concentrated around overhead and service doors. The damage is consistent with the age and use of the facility. The useful life of exterior siding is up to 35 years. Port of Milwaukee should anticipate its replacement by 2032.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Siding	15,000	6	18	20	20XX

Damaged siding at south elevation

Damaged siding at doors at west elevation

Rusted metal fasteners at siding

Damaged siding at east elevation

Interior Components

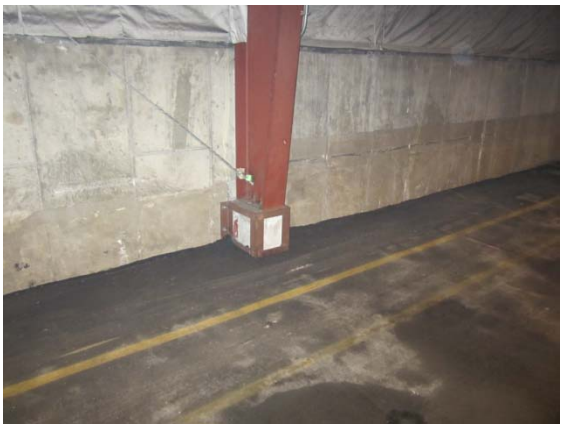
Asphalt Pavement

Bradford 2 includes a 1,670 square yards of on grade asphalt pavement within the building. Port of Milwaukee representatives report that the asphalt pavement has settled on a few occasions requiring overlays.

The useful life of interior asphalt pavement is up to 40 years. Port of Milwaukee should conduct interim repairs from the O+M budget as needed. Large replacements are considered capital expenditures. Therefore, the condition of the pavement should be monitored annually to prepare for capital repairs.

Inventory (SY)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt Pavement	1,670	6	18	3	20XX

Asphalt pavement



Pavement overlay at building perimeter

Light Fixtures

Bradford 2 interior includes 18 pendant light fixtures that are original to the building. Port of Milwaukee should replace the light fixtures by 2032.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Light Fixtures	18	7	18	20	20XX

Interior photograph – note light fixtures

Electrical Components

Electrical

Bradford 2 electrical components include service conduit from Bradford 1 and a 200 amp service panel. These components are at an age of 18 years and are reported in good condition. Port of Milwaukee should anticipate replacement of these components by 2032

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Revenue Meter	1	7	18	20	20XX
Service Panel	1	7	18	20	20XX

Bradford 2 service from Bradford 1

Bradford 2 200 amp service panel

Coil Warehouse

Envelope Components

Doors, Garage

The Coil warehouse includes ten overhead garage doors. The inspection reveals that the two SW and NW doors contain rusted lower panels. The two east doors appear to be heavily used and in satisfactory condition, although the door frames were damaged presumably by vehicle and freight movement. The remaining south and north doors were closed and appeared in good condition. The useful life of garage doors in this capacity is up to 15 years. For budgetary purposes, Port of Milwaukee should plan for phased replacement of one garage door and operator every two years from 2016 through 2020, and again beginning by 2031.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
18’ x 22’	10	Varies	18	4	20XX

SW overhead door rusted lower panels

East overhead door frame with damage

North overhead door with lower panel damage

Gutters and Downspouts

The Coil Warehouse includes 300 linear feet of gutters and 300 linear feet of downspouts. The useful life of gutters and downspouts is 35 years. Replacement of gutters and downspouts should be conducted with the metal roof replacement by 2029.

Inventory (LF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Gutters	300	5	14	17	20XX
Downspouts	300	5	14	17	20XX

Gutters and downspout

South building gutters & downspouts

Roof, Metal

The Coil Warehouse includes a 500 square metal roof. The roofs are inspected and maintained by a third party. Currently there is no inspection report available. The useful life of metal roofs is up to 35 years. Its replacement is anticipated by 2029.

Inventory (SQ)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Metal Roof	50	5	14	17	20XX

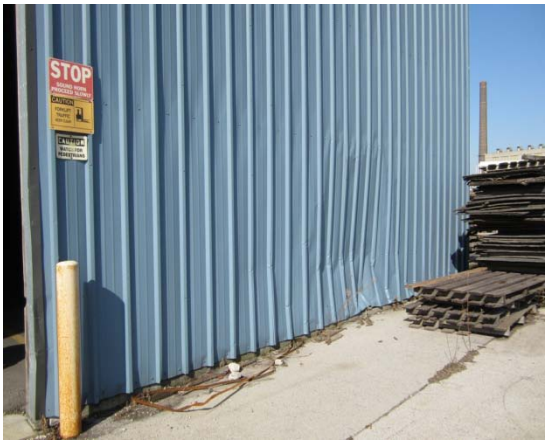
Roof overview

Siding, Metal

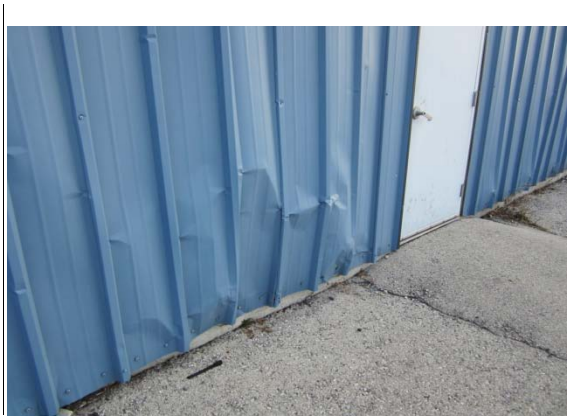
The Coil Warehouse contains 50,592 square feet of corrugated siding. The siding is at an age of 14 years. The inspection revealed isolated occurrences of damaged/bent siding mostly concentrated around the ground level and from the inside of the warehouse. The damage is consistent with the age and use of the facility. The useful life of exterior siding is up to 35 years. Port of Milwaukee should anticipate its replacement by 2032.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Siding	50,592	6	14	20	20XX

Damaged siding at north elevation



Damaged siding at the east elevation



Damaged siding from the inside out at the west elevation

Missing fasteners west elevation

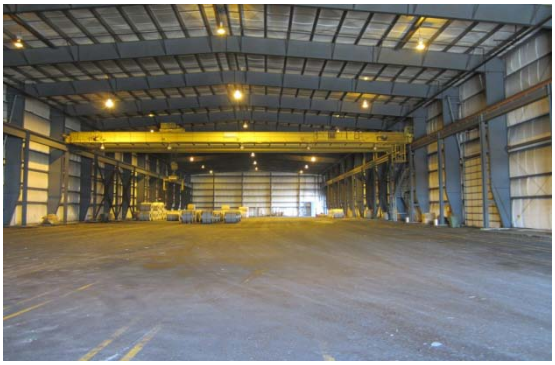
Interior Components

Asphalt Pavement

The Coil Warehouse contains 5,590 square yards of on grade asphalt pavement within the building. Port of Milwaukee representatives report that the asphalt pavement experiences periodic settlement.

The useful life of interior asphalt pavement is up to 40 years. Port of Milwaukee should conduct interim repairs from the O+M budget as needed. Large replacements are considered capital expenditures. Therefore, the condition of the pavement should be monitored annually to prepare for capital repairs.

Inventory (SY)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt Pavement	1,670	6	14	3	20XX



Asphalt pavement

Pavement overlay at building perimeter

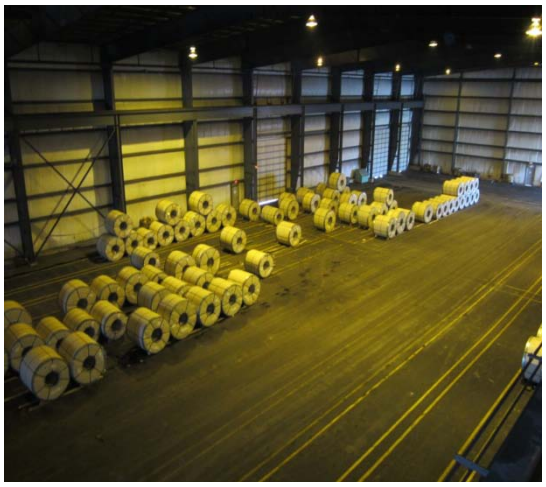
Sunken and rutted asphalt pavement

Asphalt pavement ruts and divots

Light Fixtures

The Coil Warehouse interior includes 24 pendant light fixtures that are original to the building. Port of Milwaukee should replace the light fixtures by 2032.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Light Fixtures	24	7	14	20	20XX



Interior photograph – not light fixtures

Services Components

Electrical

The Coil Warehouse electrical components include a feeder for the overhead crane, revenue meter and various service panels. These components are at an age of 14 years and are reported in good condition. Port of Milwaukee should anticipate replacement of these components by 2032.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Revenue Meter	1	7	14	20	20XX
Service Panels	3	7	14	20	20XX
Overhead crane service	1	7	14	20	20XX

Revenue meter

Service panels

Overhead crane service

Site Features

Asphalt Pavement

Bradford and Coil Buildings contains 25,800 SY of asphalt pavement surrounding the three buildings. The pavement is in satisfactory condition. The inspection revealed locations of failed pavement in the form of alligator cracking and transverse cracking throughout the property. In the main lot, pothole erosion, large water pooling, and alligator cracking were observed. Near the north and west entrance, a high concentration of failed pavement was observed.

The overall condition of the pavement is in satisfactory condition. Phased asphalt pavement replacement is of up to 8,600 square yards is anticipated every five years beginning by 2014. Asphalt pavement maintenance, including crack filling and partial replacements, at the remaining pavement should be conducted in conjunction with pavement replacement.

Inventory		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt Pavement (SY)	8,600	6	18	2	20XX

Parking lot overview

Large cracking and water pooling at the southwest entrance

Severe cracking asphalt pavement

Failed pavement

Water pooling & failed pavement

Electrical

The Coil Warehouse electrical main feeder transformer is at an unknown age and in good condition. Port of Milwaukee should anticipate replacement of the transformer by 2031.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Transformer	1	7	Unknown	20	20XX

Main feeder transformer

Fence, Chain Link

Bradford and Coil Buildings contains a 1,385 linear foot chain link fence encompassing the three buildings. The fence appears in satisfactory condition overall. However, a few isolated locations of damaged fence exist.

The useful life of a chain link fence is up to 35 years. Port of Milwaukee should anticipate its complete replacement by 2019 in conjunction with asphalt pavement replacement, and fund interim repairs from the operating budget.

Inventory (LF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Chain Link Fence	1,385	6	Unknown	7	20XX

Chain link fence south

Failed fence at east

North chain link fence

Bradford 1, Bradford 2, and Coil Buildings Preliminary	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	CRDM 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Bradford 1 (1994)																			
Envelope Components																			
Doors, Garage, Phased	1	EA	$14,500	$14,500	$75,000	15	4	2016					$16,000		$17,000		$18,000		
Roof, Metal	160	SQ	$1,375	$220,000	$355,000	35	18	2030											
Siding, Metal	15,000	SF	$14.50	$217,500	$371,000	40	20	2032											
Interior Components																			
Asphalt Pavement	1,670	SY	$36.00	$60,120	$65,000	40	3	2015				$65,000							
Light Fixtures, Replacement	18	EA	$550	$9,900	$17,000	35	20	2032											
Electrical Components																			
Electrical, Upgrades	1	LS	$15,500	$15,500	$26,000	40	20	2032											
Bradford 2 (1994)																			
Envelope Components																			
Doors, Garage, Phased	1	EA	$14,500	$14,500	$75,000	15	4	2016					$16,000		$17,000		$18,000		
Roof, Metal	160	SQ	$1,375	$220,000	$355,000	35	18	2030											
Siding, Metal	15,000	SF	$14.50	$217,500	$371,000	40	20	2032											
Interior Components																			
Asphalt Pavement	1,670	SY	$36.00	$60,120	$65,000	40	3	2015				$65,000							
Light Fixtures, Replacement	18	EA	$550	$9,900	$17,000	35	20	2032											
Electrical Components																			
Electrical, Upgrades	1	LS	$15,500	$15,500	$26,000	40	20	2032											
Coil Warehouse (Unknown)																			
Envelope Components																			
Doors, Garage, Phased	2	EA	$13,000	$26,000	$205,000	15	4	2016					$29,000		$31,000		$32,000		$34,000
Gutters and Downspouts	300	LF	$14.50	$4,350	$7,000	35	17	2029											
Roof, Metal	500	SQ	$1,375	$687,500	$1,081,000	35	17	2029											
Siding, Metal	44,800	SF	$14.50	$649,600	$1,107,000	40	20	2032											
Interior Components																			
Asphalt Pavement	5,590	SY	$36.00	$201,240	$218,000	40	3	2015				$218,000							
Light Fixtures, Replacement	24	EA	$550	$13,200	$22,000	35	20	2032											
Services Components																			
Electrical, Upgrades	1	LS	$110,000	$110,000	$187,000	45	20	2032											
Site Features																			
Asphalt Pavement, Phased	8,600	SY	$36.00	$309,600	$1,126,000	20	2	2014			$327,000					$373,000			
Electrical Transformer	1	EA	$25,000	$25,000	$41,000	40	19	2031											
Fence Replacement	1,385	LF	$52	$72,020	$210,000	35	7	2019								$87,000			
			Total 20 Year Cost		$6,022,000			**Total Annual Cost**	$0	$0	$327,000	$348,000	$61,000	$0	$65,000	$460,000	$68,000	$0	$34,000

Comments

a) UL is Useful Life and RUL is Remaining Useful Life

b) The annual building materials inflation rate estimate is estimated at 2.70%

c) CRV is the Current Replacement Value

d) CRDM is Capital Repair/Deferred Maintenance

e) Coil Warehouse CRV is estimated from Marshall & Swift - Class S Storage Warehouse (14-6)

Bradford 1										
CRV	$965,000	$991,055	$1,017,813	$1,045,294	$1,073,517	$1,102,502	$1,132,270	$1,162,841	$1,194,238	$1,226,482	$1,259,597
FCI	0.00	0.00	0.00	0.06	0.01	0.00	0.02	0.00	0.02	0.00	0.00
Bradford 2										
CRV	$965,000	$991,055	$1,017,813	$1,045,294	$1,073,517	$1,102,502	$1,132,270	$1,162,841	$1,194,238	$1,226,482	$1,259,597
FCI	0.00	0.00	0.00	0.06	0.01	0.00	0.02	0.00	0.02	0.00	0.00
Coil Warehouse										
CRV	$2,500,000	$2,567,500	$2,636,823	$2,708,017	$2,781,133	$2,856,224	$2,933,342	$3,012,542	$3,093,881	$3,177,415	$3,263,206
FCI	0.00	0.00	0.00	0.08	0.01	0.00	0.01	0.00	0.01	0.00	0.01

Bradford 1, Bradford 2, and Coil Buildings Preliminary	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Bradford 1 (1994)																		
Envelope Components																		
Doors, Garage, Phased	1	EA	$14,500	$14,500	$75,000	15	4	2016									$24,000	
Roof, Metal	160	SQ	$1,375	$220,000	$355,000	35	18	2030								$355,000		
Siding, Metal	15,000	SF	$14.50	$217,500	$371,000	40	20	2032										$371,000
Interior Components																		
Asphalt Pavement	1,670	SY	$36.00	$60,120	$65,000	40	3	2015										
Light Fixtures, Replacement	18	EA	$550	$9,900	$17,000	35	20	2032										$17,000
Electrical Components																		
Electrical, Upgrades	1	LS	$15,500	$15,500	$26,000	40	20	2032										$26,000
Bradford 2 (1994)																		
Envelope Components																		
Doors, Garage, Phased	1	EA	$14,500	$14,500	$75,000	15	4	2016									$24,000	
Roof, Metal	160	SQ	$1,375	$220,000	$355,000	35	18	2030								$355,000		
Siding, Metal	15,000	SF	$14.50	$217,500	$371,000	40	20	2032										$371,000
Interior Components																		
Asphalt Pavement	1,670	SY	$36.00	$60,120	$65,000	40	3	2015										
Light Fixtures, Replacement	18	EA	$550	$9,900	$17,000	35	20	2032										$17,000
Electrical Components																		
Electrical, Upgrades	1	LS	$15,500	$15,500	$26,000	40	20	2032										$26,000
Coil Warehouse (Unknown)																		
Envelope Components																		
Doors, Garage, Phased	2	EA	$13,000	$26,000	$205,000	15	4	2016		$36,000							$43,000	
Gutters and Downspouts	300	LF	$14.50	$4,350	$7,000	35	17	2029							$7,000			
Roof, Metal	500	SQ	$1,375	$687,500	$1,081,000	35	17	2029							$1,081,000			
Siding, Metal	44,800	SF	$14.50	$649,600	$1,107,000	40	20	2032										$1,107,000
Interior Components																		
Asphalt Pavement	5,590	SY	$36.00	$201,240	$218,000	40	3	2015										
Light Fixtures, Replacement	24	EA	$550	$13,200	$22,000	35	20	2032										$22,000
Services Components																		
Electrical, Upgrades	1	LS	$110,000	$110,000	$187,000	45	20	2032										$187,000
Site Features																		
Asphalt Pavement, Phased	8,600	SY	$36.00	$309,600	$1,126,000	20	2	2014		$426,000								
Electrical Transformer	1	EA	$25,000	$25,000	$41,000	40	19	2031									$41,000	
Fence Replacement	1,385	LF	$52	$72,020	$210,000	35	7	2019										$123,000
			Total 20 Year Cost		$6,022,000			**Total Annual Cost**	$0	$462,000	$0	$0	$0	$0	$1,088,000	$710,000	$132,000	$2,267,000

Comments

a) UL is Useful Life and RUL is Remaining Useful Life

b) The annual building materials inflation rate estimate is estimated at 2.70%

c) CRV is the Current Replacement Value

d) CRDM is Capital Repair/Deferred Maintenance

e) Coil Warehouse CRV is estimated from Marshall & Swift - Class S Storage Warehouse (14-6)

		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Bradford 1											
	CRV	$1,293,607	$1,328,534	$1,364,404	$1,401,243	$1,439,077	$1,477,932	$1,517,836	$1,558,818	$1,600,906	$1,644,130
	FCI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.01	0.25
Bradford 2											
	CRV	$1,293,607	$1,328,534	$1,364,404	$1,401,243	$1,439,077	$1,477,932	$1,517,836	$1,558,818	$1,600,906	$1,644,130
	FCI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.01	0.25
Coil Wareho											
	CRV	$3,351,312	$3,441,798	$3,534,726	$3,630,164	$3,728,178	$3,828,839	$3,932,218	$4,038,388	$4,147,424	$4,259,404
	FCI	0.00	0.01	0.00	0.00	0.00	0.00	0.28	0.00	0.01	0.31

X/XX/2012

FACILITIES CONDITION ASSESSMENT PROGRAM

IMC SALT OFFICE BUILDING

Facilities Development | Management

Contents

Executive Summary

Property Analysis Summary

IMC Salt Office Building is located on the south end portion of the Port of Milwaukee. It is located at 2001 S. Lincoln Memorial Drive with S. Carferry to the East and E. Bay St. to the south. The building was constructed in 1960 and comprises of 2,400 square feet of office space.

IMC Salt Office Building Information				
Building Name	Year Built/Age	Square Feet	CRV	FCI/Rating
IMC Salt Office Building	1960/52	2,400	$ 310,000	

Near term projects are those that are anticipated with the first six years of the funding analysis. These projects are defined by priority. High priority projects are those that require capital expenditures for remediation within two years. Medium priority projects are those that require capital expenditures from three- to six-years. Low priority projects are those that require capital expenditures beyond six years. Subsequent facility inspections will adjust the anticipated priorities. The following table summarizes the high and medium priority projects at North American Salt Building.

Priority	Year	Near Term Projects
High	**1**	
	2	
Medium	**3**	
	4	
	5	
	6	Interior – Offices and Rest Rooms Renovation

Annual expenditures for the North American Salt Building vary from year– to –year as indicated from the graph below.

ADD ANNUAL EXPENDITURE GRAPH HERE

The most significant category of North American Salt Building expenditures pertains to **building envelope** repairs as shown below.

ADD PIE CHART HERE

Component Inventory

The property components at North American Salt Building are categorized as follows:

IMC Salt Office Building Capital Expenditures

Building Envelope Components

- Gutters and Downspouts
- Light Fixtures
- Roof, EPDM Single Ply
- Siding, Brick
- Windows and Doors

Building Interior Components

- Interior Renovations

Electrical Components

- Electrical, Upgrades
- HVAC, Split System

Site Features

- Asphalt/Gravel Pavement, Phased
- Fence Replacement

O+M Responsibility

- Paint Finishes
    - Exterior Components
    - Touch-Up

- Other Items Normally Funded by O+M

Long Lived

- Awning
- Foundation
- Structural Frame

Others Responsibility

- Truck Scale

Maintenance Items

The facility inspection observed deficiencies that require maintenance repairs/attention. Timely remediation will minimize the cost for remediation. Whereas, deferred maintenance may result in exacerbation of deterioration and more costly future repairs.

Building Envelope

1) Roof Repairs
   i. All Buildings

Site Features

2) Asphalt Pavement
   i. Crack repair, patch , and seal coat

Envelope Components

Light Fixtures

IMC Salt Office Building contains six 400Watt metal halide fixtures and one light pole and fixture. Upgrade to LED Beta Lighting is recommended. The useful life of light fixtures is up to 35 years. Port of Milwaukee should anticipate their replacement by 20XX. Interim partial replacements and repairs are funded by O + M.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Light Fixtures	6	6	Unknown	9	20XX

Outdoor lighting

Light fixture with

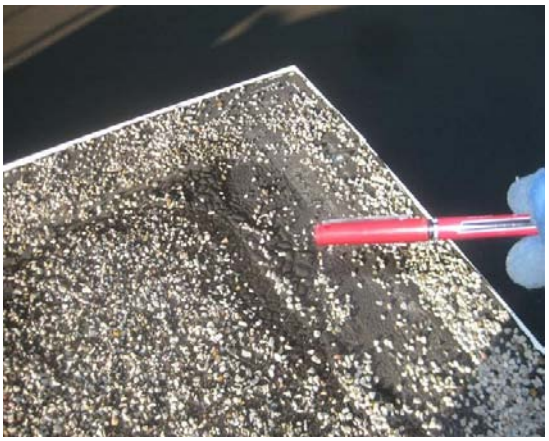
Roofs, Built-Up

IMC Salt Office Building roof comprises of two Built-up Roof (BUR) roofs, with a total of 2,560 square feet. The roof is inspected and maintained by a third party. The last inspection occurred in 2012 and the roof was reported in fair overall condition, but minor repairs are required. On both roofs, the corners exhibited wind scour and the exposed membrane is dry, embrittled, and cracked. Roof 2 exhibits rusted flashing and clogged gutters.

BUR roofs have a useful life of 20 years. The Port of Milwaukee should anticipate their replacement by 20XX.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Roof 1	2,050	5	Unknown	XX	20XX
Roof 2	510	5	Unknown	XX	20XX

Roof-1 elevation view



Roof-1tar dry and cracking

Roof-1 pan mastic is cracking

Roof-2 edge metals rusting

Roof-2 gutter is clogged full with gravel

Roof-2 tar dry and cracking

Siding, Masonry

IMC Salt Office Building exterior comprises 1,090 square feet of brick masonry and 515 square feet of painted concrete masonry unit (CMU). The brick and CMU masonry is in good overall condition. Visual onsite inspection of the brick masonry and CMU identified few locations of isolated cracks. Additionally, the inspection revealed cohesion/adhesion caulk failure along the soffit, window and door frames. For budgetary purposes, the Port of Milwaukee bases its cost estimate for masonry and sealant work on the following:

- Repair and replace cracked/crumbling sill and brick
- Caulk and repaint soffit, fascia and awning: square feet
- Repaint and seal windows/doors/frames and lintels
- Paint exposed metal surfaces

The actual scope of work will be verified by design inspection.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Brick Masonry	1,090	7	52	0	
Concrete Masonry Unit	515	8	52		
Caulk (LF)	230	2	52	0	

Old and new brick meeting together

Cracked brick and sill at SE corner

CMU and brick west elevation

Rusting panels and facade

Damaged concrete sill

Windows and Doors

IMC Salt office includes one metal door, one glass door, and 345 square feet of windows. Typical useful life expectancy for windows is up to 35 years. The City of Milwaukee should conduct window and door replacement with other exterior capital improvements. The table below summarizes the recommendations.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Door, Glass	1	6	Unknown	XX	20XX
Door, Metal	1	6	Unknown	XX	20XX
Windows (SF)	345	6	Unknown	XX	20XX

Old and new brick meeting together

East/north elevations include highest concentration of windows/doors

Interior Components

Office Renovations

IMC Salt Office Building comprises interior finishes including acoustic tile ceiling, carpet, painted walls and ceilings, shelving, and light fixtures. These components are associated with the office spaces, and storage rooms. The useful life of interior renovations is up to 15 years.

The inspection revealed that the interior spaces were in good overall condition. Several acoustic ceiling tiles had water damage. The Port of Milwaukee defers interior costs to lessees. However, in the event IMC Salt office is vacant and tenant improvements are required, budgetary estimates for improvements are included for renovations.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Acoustic Tile Ceiling	1,580	7	Unknown	X	20XX
Painted Walls/Ceiling	3,070	7	Unknown	X	20XX
Carpet Floor Tile (SY)	173	6	Unknown	X	20XX
Tile Floor Covering	80	6	Unknown	X	20XX
Cabinets/Counters (LF)	26	6	Unknown	X	20XX
Sink (EA)	1	6	Unknown	X	20XX
Light Fixtures	28	6	Unknown	X	20XX

Typical office finishes

Water damaged ceiling tile

Office finishes

Break room finishes

Rest Rooms

IMC Salt Office Building comprises interior finishes including acoustic tile ceiling, carpet, painted walls and ceilings, shelving, and light fixtures. These components are associated with the office spaces, and storage rooms. The useful life of interior renovations is up to 15 years.

The inspection revealed that the interior spaces were in good overall condition. Several acoustic ceiling tiles had water damage. The Port of Milwaukee defers interior costs to lessees. However, in the event IMC Salt office is vacant and tenant improvements are required, budgetary estimates for improvements are included for renovations.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Acoustic Tile Ceiling	92	7	Unknown	X	20XX
Painted Walls/Ceiling	730	7	Unknown	X	20XX
Vinyl Floor Tile	92	6	Unknown	X	20XX
Sinks (EA)	3	6	Unknown	X	20XX
Toilets (EA)	2	6	Unknown	X	20XX

Rear rest room

Front office rest room

Electrical Components

Electrical

IMC Salt Office Building electrical component includes a service distribution panel inside the building. The component is reported in poor overall condition at an age of 52 years. Port of Milwaukee should coordinate its replacement with interior renovations, or exterior lighting upgrades.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Service panel 200 Amp	1	4	52	X	20XX

Service panel

HVAC, Split System

IMC Salt Office Building comprises of one split system, and comprises an internal forced air furnace and an external condensing unit. The useful life of split systems is up to 20 years. The Port of Milwaukee should anticipate its replacement by 20XX. Interim partial replacements and repairs are funded by O + M.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Split System	1				
Furnace (MBH)	100	7	6	XX	20XX
Condenser (Tons)	4	7	6	XX	20XX

Furnace heating unit

Condenser unit

Life Safety System

IMC Salt Office Building life safety system includes two exits lights, one annuciator, one pull box, and one control panel. The useful life of the life safety system is up to 25 years. The Port of Milwaukee should anticipate its replacement by 20XX in conjunction with interior renovations.

Inventory (LS)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Life Safety System	1	7	Unknown	XX	20XX

Pull box

Exit light

Site Features

Asphalt Pavement

IMC Salt Office Building property contains 3,050 square yards of finished asphalt pavement. The inspection revealed small concentrations of alligator cracks. Interim asphalt pavement maintenance, including crack filling and partial replacements, should be funded from O + M in 2012. The overall condition of the pavement is good.

Inventory		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt Pavement (SY)	3,050	7	Unknown	XX	20XX

Entrance asphalt driveway overview

Cracked pavement

Traverse cracking

Longitudinal cracking

Fence, Chain Link

IMC Salt Office facility perimeter is enclosed by a chain link fence and three gates. The fence exhibited small isolated damage, and is in overall good condition. The useful life of chain link fences is up to 35 years. Port of Milwaukee plans fence replacement by 20XX in conjunction with pavement capital projects.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Chain Link Fence (LF)	835	7	Unknown	XX	20XX
Gates, 10’	2	7	Unknown	XX	20XX
Gates, 15’	2	7	Unknown	XX	20XX
Gates, 17’	2	7	Unknown	XX	20XX

Fence and gate

Damaged chain link section

IMC Salt Company (1960)	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	CRDM 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Envelope Components																		
Light Fixtures	6	EA	$1,700.00	$10,200	$14,000	35	11	2023										
Roof, 1, Built-up	21	SQ	$2,100	$44,100	$64,000	20	14	2026										
Roof, 2, Built-up	6	SQ	$2,100	$12,600	$18,000	20	14	2026										
Siding, Masonry	1	LS	$7,400	$7,400	$9,000	15	9	2021										$9,000
Windows and Doors, Replacement	1	LS	$41,500	$41,500	$69,000	35	19	2031										
				$0	$0													
Interior Components																		
Renovation, Offices	1	LS	$45,000	$45,000	$51,000	15	5	2017						$51,000				
Renovation, Rest Rooms	1	LS	$10,000	$10,000	$11,000	35	5	2017						$11,000				
Control Components																		
Electrical	1	LS	$14,000	$14,000	$16,000	40	5	2017						$16,000				
HVAC, Split System	1	EA	$10,000	$10,000	$15,000	20	15	2027										
Life Safety System	1	LS	$4,500	$4,500	$5,000	25	5	2017						$5,000				
Site Features																		
Asphalt Pavement, Replacement	3,050	SY	$36.00	$109,800	$173,000	20	17	2029										
Fence, Chain Link (incld. gates)	835	LF	$45	$37,575	$59,000	20	17	2029										
			Total 20 Year Cost		$445,000			**Annual Cost**	$0	$0	$0	$0	$0	$83,000	$0	$0	$0	$9,000
								CRV	$310,000	$318,370	$326,966	$335,794	$344,861	$354,172	$363,734	$373,555	$383,641	$394,000
								FCI	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.02

Comments

a) UL is Useful Life and RUL is Remaining Useful Life

b) The annual building materials inflation rate estimate is estimated at 2.70%

c) CRV is the Current Replacement Value

d) CRDM is Capital Repair/Deferred Maintenance

IMC Salt Company (1960)	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Envelope Components																		
Light Fixtures	6	EA	$1,700.00	$10,200	$14,000	35	11		$14,000									
Roof, 1, Built-up	21	SQ	$2,100	$44,100	$64,000	20	14					$64,000						
Roof, 2, Built-up	6	SQ	$2,100	$12,600	$18,000	20	14					$18,000						
Siding, Masonry	1	LS	$7,400	$7,400	$9,000	15	9											
Windows and Doors, Replacement	1	LS	$41,500	$41,500	$69,000	35	19										$69,000	
				$0	$0													
Interior Components																		
Renovation, Offices	1	LS	$45,000	$45,000	$51,000	15	5											
Renovation, Rest Rooms	1	LS	$10,000	$10,000	$11,000	35	5											
Control Components																		
Electrical	1	LS	$14,000	$14,000	$16,000	40	5											
HVAC, Split System	1	EA	$10,000	$10,000	$15,000	20	15						$15,000					
Life Safety System	1	LS	$4,500	$4,500	$5,000	25	5											
Site Features																		
Asphalt Pavement, Replacement	3,050	SY	$36.00	$109,800	$173,000	20	17								$173,000			
Fence, Chain Link (incld. gates)	835	LF	$45	$37,575	$59,000	20	17								$59,000			
			Total 20 Year Cost		$445,000			$0	$14,000	$0	$0	$82,000	$15,000	$0	$232,000	$0	$69,000	$0
Comments																		
a) UL is Useful Life and RUL is Remaining Useful Life								$404,638	$415,563	$426,783	$438,306	$450,140	$462,294	$474,776	$487,595	$500,760	$514,281	$528,166
b) The annual building materials inflation rate estimate is estimated at	2.70%							0.00	0.03	0.00	0.00	0.18	0.03	0.00	0.00	0.00	0.13	0.00
c) CRV is the Current Replacement Value																		
d) CRDM is Capital Repair/Deferred Maintenance																		

XXX/2012

FACILITIES CONDITION ASSESSMENT PROGRAM

MILWAUKEE BULK TERMINAL WAREHOUSE

Facilities Development | Management

Contents

Executive Summary

Property Analysis Summary

Milwaukee Bulk Terminal Warehouse is located on the south end portion of the Port of Milwaukee. It is located at 1900 S. Lincoln Memorial Drive with S. Harbor Dr. to the west and E. Bay St. to the south. The building was constructed in 1949 and comprises of 3,200 square feet of office space and 11,600 square feet of warehouse space

Milwaukee Bulk Terminal Warehouse Information				
Building Name	Year Built/Age	Square Feet	CRV	FCI/Rating
Bulk Terminal Building	1949/63	14,800	$ 1,201,828	

Near term projects are those that are anticipated with the first six years of the funding analysis. These projects are defined by priority. High priority projects are those that require capital expenditures for remediation within two years. Medium priority projects are those that require capital expenditures from three- to six-years. Low priority projects are those that require capital expenditures beyond six years. Subsequent facility inspections will adjust the anticipated priorities. The following table summarizes the high and medium priority projects at North American Salt Building.

Priority	Year	Near Term Projects
High	**1**	Subject to Change
	2	
Medium	**3**	
	4	
	5	
	6	

Annual expenditures for the North American Salt Building vary from year– to –year as indicated from the graph below.

ADD ANNUAL EXPENDITURE GRAPH HERE

The most significant category of Milwaukee Bulk Terminal Warehouse expenditures pertains to **building envelope** repairs as shown below.

ADD PIE CHART HERE

Component Inventory

The property components at Milwaukee Bulk Terminal Warehouse are categorized as follows:

Milwaukee Bulk Terminal Warehouse Capital Expenditures

Building Envelope Components

- Doors, Garage
- Doors, Service
- Light Fixtures
- Roofs, EPDM
- Siding, Masonry
- Windows

Building Interior Components

- Offices
- Rest Rooms

Electrical Components

- Electrical, Upgrades
- HVAC, Boiler/Radiators
- Life Safety System
- Spilt System

Garage Components

- Light Fixtures
- Paint Finishes
- Unit Heaters

Site Features

- Asphalt Pavement
- Concrete Flatwork
- Fuel Tanks

O+M Responsibility

- Paint Finishes
  - Exterior Components
  - Touch-Up
- Unit Heaters
- Other Items Normally Funded by O+M

Long Lived

- Foundation
- Structural Frame

Others Responsibility

Maintenance Items

The facility inspection observed deficiencies that require maintenance repairs/attention. Timely remediation will minimize the cost for remediation. Whereas, deferred maintenance may result in exacerbation of deterioration and more costly future repairs.

Building Envelope

1) Roof Repairs

Site Features

2) Asphalt Pavement

i. Crack repair, patch , and seal coat

Envelope Components

Doors, Garage

Milwaukee Bulk Terminal Warehouse includes five overhead garage doors. The inspection reveals that the service doors and overhead doors are in varied condition from good to fair. The useful life overhead garage doors is up to 15 years. Based on the condition the Port of Milwaukee should anticipate phased replacement/refurbishment of service doors every four years beginning by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Garage Doors , 12 x 12	4	6	Unknown	XX	20XX
Garage Doors, 16 x 16	1	6	Unknown	XX	20XX

East elevation overhead garage door

West elevation garage door recently replaced

Doors, Service

Milwaukee Bulk Terminal Warehouse includes seven metal service doors that are in satisfactory condition overall. The inspection revealed that most doors exhibit the onset of rust. The useful life for service doors is up to 35 years. The Port of Milwaukee should anticipate phased replacement of service doors every eight years beginning by 20XX. Interim paint applications and repairs should be funded from the operating budget.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Service Doors, Metal	7	6	Unknown	XX	20XX

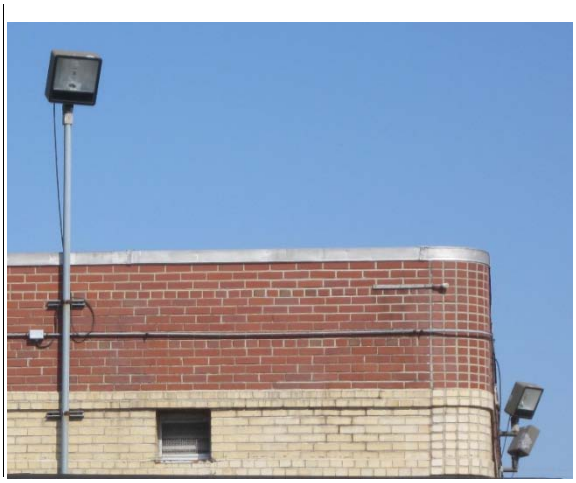
Onset of rust at west door

Onset of rust at east door

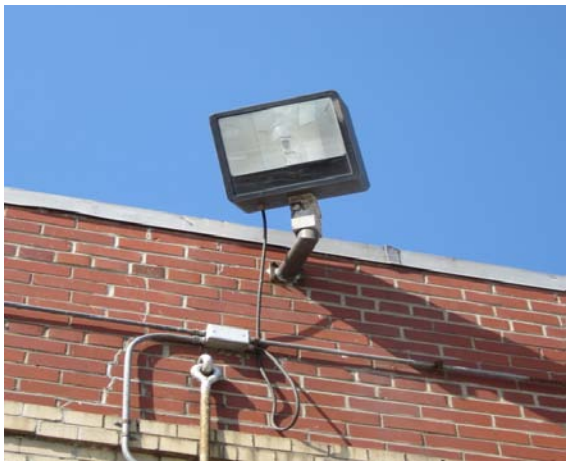
Light Fixtures, Exterior

Milwaukee Bulk Terminal contains seven exterior light fixtures. The useful life of light fixtures is up to 35 years. Port of Milwaukee should anticipate their replacement by 20XX. Interim partial replacements and repairs are funded by O + M.

Inventory (LS)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Exterior Lighting Distribution	7	5	Unknown	X	20XX



Outdoor lighting



Light fixture

Roofs, EPDM

Milwaukee Bulk Terminal Warehouse roof comprises of three EPDM roofs and one awning roof. The roof is inspected and maintained by a third party. The last inspection occurred in 2012 and the roofs were reported in fair overall condition except for the awning, which is recommended for roof replacement. However, in lieu of replacement, Port of Milwaukee may choose to remove the awning as consistent with previous facility improvements.

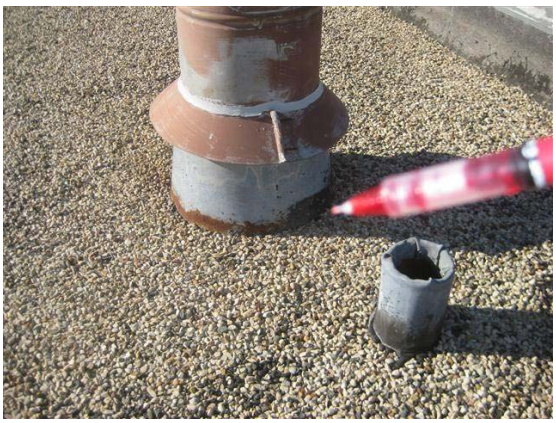
EPDM roofs have a useful life of 20 years. The Port of Milwaukee anticipates their replacement by 20XX.

Inventory (SQ)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Roof 1, EPDM w/ ballast	112	5	Unknown	X	20XX
Roof 2, EPDM w/ ballast	20	5	Unknown	X	20XX
Roof 3, EPDM Fully Adhered	38	5	Unknown	X	20XX
Roof 4, Built-up Roof	1	2	Unknown	X	20XX

Roof-1 elevation view

Roof-1 parapet deterioration

Roof-2 elevation view



Roof-2 metal penetration rust

Roof-3 elevation view

Roof-4 soffit from awning collapsing

Siding, Masonry

Milwaukee Bulk Terminal Warehouse exterior comprises 7,000 square feet of brick masonry and 1,540 square feet of concrete (CMU). TThe brick and concrete is in fair overall condition. Visual onsite inspection revealed that the northwest corner of the building masonry exhibits mortar and brick separation. Additionally, locations of awning removal exhibit unfinished masonry repair. Finally, parapet walls exhibited deterioration and prior repairs of repaointing and masonry replacement.

The concrete included isolated locations of cracks and spalls.

For budgetary purposes, the Port of Milwaukee should anticipate the following scope of work:

- Façade inspection
- Concrete surface repairs 50 SF
- Concrete crack repairs of up to 85 linear feet
- Brick replacement of up to 175 square feet
- Repointing of up to 490 square feet
- Sealant replacement of up to 1,040 linear feet
- Lintel paint

The actual scope of work will may vary during design and construction.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Brick Masonry	7,000	5	63	X	20XX
Concrete	1,540	6	63	X	20XX
Caulk (LF)	1,040	4	63	X	20XX
Metal Lintels (LF)	335	6	63	X	20XX

Brick and concrete at south elevation

Spalled concrete at NW corner

Unfinished masonry work at awning

West elevation rusting lintels

Mortar/brick separation at NE corner

Windows

Milwaukee Bulk Terminal includes 1,375 square feet of windows. Typical useful life expectancy for windows is up to 35 years. The inspection revealed that the windows exhibited the onset of rust at frames. The window at the southwest corner experiences leaks. The windows likely vary in age with a majority either original to building construction or replaced decades ago. The Port of Milwaukee should anticipate window replacement by 20XX. Isolated window replacements should be conducted from the operating budget.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Windows	1,375	6	63	XX	20XX

Window at southwest elevation with reported leaks

SW window rusted interior frame

Window system at east elevation

East elevation window possibly replaced

Interior Components

Light Fixtures, Interior

Milwaukee Bulk Terminal includes 50 fluorescent light fixtures and 4 wall mounted light fixtures throughout the office spaces. Useful life of light fixtures is up to 35 years. The Port of Milwaukee should anticipate their replacement by 20XX in conjunction with interior renovations.

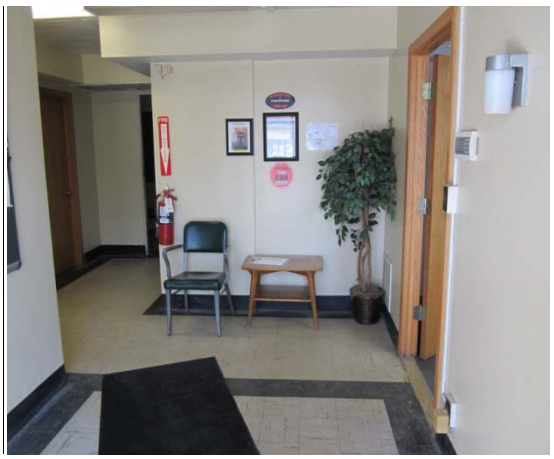
Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Fluorescent	50	6	10	X	20XX
Wall Mounted	4	6	10	X	20XX

Fluorescent light fixtures

Office Renovations

Milwaukee Bulk Terminal Office area comprises interior finishes including acoustic tile ceiling, carpet, painted walls and ceilings, shelving, and light fixtures. The inspection revealed that the interior spaces were in fair to poor condition. The inspection revealed damaged ceiling tiles and floor tiles, damaged wall surfaces and generally outdated and worn finishes. The useful life of interior renovations is up to 20 years. The Port of Milwaukee defers interior costs to lessees. However, in the event IMC Salt office is vacant and tenant improvements are required, budgetary estimates for improvements are included for renovations.

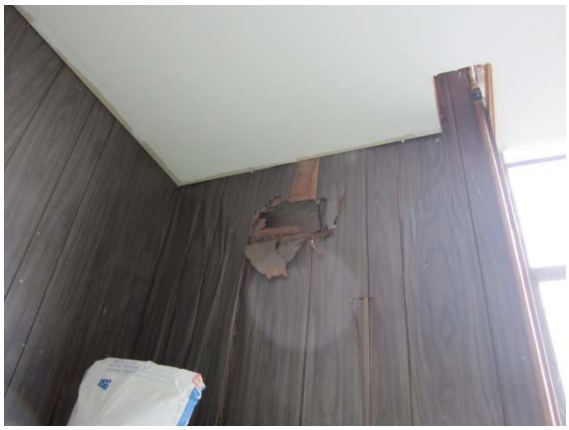
Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Acoustic Tile Ceiling (SF)	3,000	5	Unknown	X	20XX
Painted Walls/Ceiling (SF)	7,000	6	Unknown	X	20XX
Carpet Floor Tile (SY)	150	4	Unknown	X	20XX
Vinyl Floor tile (SF)	1,750	3	Unknown	X	20XX
Light Fixtures, Fluorescent	50	6	Unknown	X	20XX



Entrance

Ceiling tiles with water damage

Typical office view



Damaged wall finish

Finished office space

Damaged floor tiles

Damaged wall finish

Rest Rooms, Renovations

The rest rooms are in satisfactory condition. Rest rooms have a useful life of up to 35 years. The Port of Milwaukee plans rest rooms renovation in conjunction with other interior renovations by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Paint Walls/Ceilings (SF)	775	5	Unknown	X	20XX
Ceramic Tile Floor (SF)	115	5	Unknown	X	20XX
Light Fixtures, Strip	3	5	Unknown	X	20XX
Toilet	3	5	Unknown	X	20XX
Urinal	1	5	Unknown	X	20XX
Sink	2	5	Unknown	X	20XX
Partition	3	5	Unknown	X	20XX
Mirrors	2	5	Unknown	X	20XX

Men's room toilets, partitions

Ladies room tile floor/sink

Control Components

Electrical

Milwaukee Bulk Terminal Warehouse electrical components include secondary and branch circuit distribution. The components are at varied ages and conditions. Based on condition, the Port of Milwaukee should anticipate phased service upgrades/replacement of electrical components.

Phase 1 upgrades are scheduled for electrical components that are in condition 4 and below (shaded red). Phase 2 upgrades are scheduled for electrical components that are in condition 5-6 (shaded blue).The remaining components, rated 7 and above (shaded green) are long-lived. The following table summarizes the initial phases and conditions. Actual scope of work may vary at time of electrical upgrades.

Part / Equipment Name	Year Installed	Manufacturer/Material	Capacity / Area / Size	Condition
Utility Service-WE Energies 480Vac	1980	Transformer	400Amp 480/277 4-wire	9
Utility Revenue Meter	1980's	Itron	400Amp 480/277 4-wire	9
Utility Service-WE Energies 120/240Vac	1980	Transformer	400Amp 120/240Vac	9
Utility Revenue Meter	1980's	Landis & Gyr	400Amp 120/240Vac	9
Fused Disconnect	1990	Square D	30Amp, 480Vac, 4-wire	8
Fused Disconnect	1990	Square D	30Amp, 480Vac, 4-wire	8
Fused Disconnect	1990	Square D	100Amp, 480Vac, 4-wire	8
Combination Starter	1990	Square D	100 Amp, 480Vac,Size 3 Starter	8
Allen Bradley Starter	1990	Square D	60 Amp, 480Vac, 4-wire	8
Utility Grade Tenant Revenue Meter	1970	Westinghouse	480 volts 4-wire	7
Utility Grade Tenant Meter	1960	Westinghouse	200Amp 120/240Vac	6

Utility Grade Tenant Meter	1960	Westinghouse	200Amp 120/240Vac	6
Feeder Breaker	1950	Westinghouse	480 volt, 50Amp	5
Fused Field Disconnects	1950's	Square D	480 volt, fused 200,30,30, &30Amp	5
Service Panel	1950	Westinghouse	480 volt, 350Amp Main	4
Feeder Breaker	1950	Westinghouse	480 volt, 125Amp	4
Feeder Breaker	1950	Westinghouse	480 volt, 50Amp	4
Feeder Breaker	1950	Westinghouse	480 volt, 50Amp	4
Feeder Breaker	1950	Westinghouse	480 volt, 50Amp	4
120/240Vac Service Panel	1950	Westinghouse	120/240 volt, 400Amp Main	4
Feeder Breaker	1950	Westinghouse	120/240 volt, 125Amp	4
Feeder Breaker	1950	Westinghouse	120/240volt, 50Amp	4
Feeder Breaker	1950	Westinghouse	120/240 volt, 30Amp	4
Feeder Breaker	1950	Westinghouse	120/240 volt, 30Amp	4
Feeder Breaker	1950	Westinghouse	120/240 volt, 50Amp	4
Three Phase Branch Circuit Panel AA	2002	Square D	200 amp 240 volt three phase 42 circuit	8
208 Volt Panel B	2002	Square D	225 amp 120/208 Three Phase 42 circuit	8
Field Mtd. Disconnect	1970	Square D	30Amp, 240Vac, fused	6
Load Center	1990	Cutler-Hammer	30Amp two pole 240Vac	6
Load Center Garage	1990	Square D	MLO 8ckt, 120/240Vac	6
Load Center (Soda)	1960	Square D	20Amp (2) Single pole 120Vac	5
Load Center QO	1980's	Square D	60Amp 120/240Vac	5

Field Mtd. Motor Starter	1970	Cutler Hammer	30Amp, 240Vac starter w/Overloads	5
Distribution Panel Garage	1955	Westinghouse	100Amp Main 20ckt, 120Vac	5
Distribution Panel	1950	Westinghouse	100Amp Main 120/240Vac 20ckt	4

Incoming service with revenue meter

Breaker panel

Miscellaneous disconnects

HVAC, Boiler, Radiators

Milwaukee Bulk Terminal Warehouse includes one building heat boiler in the mechanical room with a capacity of 1,500 MBH. The boiler is 27 years of age. The useful life of boilers in this capacity is up to 30 years. The Port of Milwaukee anticipates its replacement by 2017.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Boiler (1,500 MBH)	1	4	27	X	20XX
Baseboard radiation (LF)	84	4	Unknown	X	20XX

Building heat boiler

Baseboard radiation

Life Safety System

Milwaukee Bulk Terminal Warehouse life safety system is comprised of exit/emergency lights and associated wiring. Life safety systems have a useful life of up to 25 years. Replacement of the life safety system is anticipated by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Exit Lights	10	6	Unknown	X	20XX

Emergency/Exit light fixture

Split Systems

Milwaukee Bulk Terminal Warehouse comprises of two split systems that provide cooling only. Each comprises an internal forced air evaporator coil and an external condensing unit. The useful life of cooling systems is up to 20 years. The Port of Milwaukee anticipates their replacement by 20XX. Interim partial replacements and repairs are funded by O + M.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Unit-1 (Tons)	4	5	Unknown	X	20XX
Unit-2 (Tons)	2	6	Unknown	X	20XX

Unit-1 return air and evaporator

Unit-2 return air and evaporator

Condenser units

Garage Components

Light Fixtures

Milwaukee Bulk Terminal Warehouse interior includes 42 fluorescent light fixtures and seven pendant light fixtures. The fixtures appear in satisfactory condition. Port of Milwaukee should anticipate their replacement by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Light Fixtures, Fluorescent	42	6	Unknown	X	20XX
Light Fixtures, Pendant	7	6	Unknown	X	20XX

Light fixtures

Paint Finishes

Milwaukee Bulk Terminal Warehouse ceiling and structural components include a paint finish application. The structural components exhibited surface rust, though section loss was not observed. The useful life of paint finishes is up to 35 years. The Port of Milwaukee plans paint finishes by 20.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Bulk Terminal Garage	11,900	6	Unknown	XX	20XX

Steel components

Rusted steel components

Steel components – Tool room

Unit Heaters

Milwaukee Bulk Terminal Warehouse contains four unit heaters. The unit heaters have a useful life of 35 years. The Port of Milwaukee should anticipate their replacement by 20XX. Interim repairs and replacements are funded by O + M funds.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
NG Unit heaters	4	5	XX	XX	20XX

Unit heaters

Unit heater

Site Features

Asphalt, Pavement, Replacement

Milwaukee Bulk Terminal Warehouse property contains 13,400 square yards of finished asphalt pavement throughout the property. The overall condition of the pavement is fair. The inspection revealed failed pavement in the form of alligator cracks. The Port of Milwaukee should anticipate phased replacement of up to 6,700 square yards of asphalt pavement beginning by 20XX.

Inventory		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt Pavement (SY)	13,400	4	Unknown	9	2021

Alligator cracks

North cracking and potholes

Alligator cracks and prior repairs

Longitudinal cracking near scale house

Concrete Flatwork

Milwaukee Bulk Terminal Warehouse property contains 5,150 square feet of concrete flatwork throughout the property. The concrete appeared in good overall condition with only isolated locations of concrete deterioration. Port of Milwaukee should plan partial concrete replacement of up to 1,000 square feet (or 20%) in conjunction with phased asphalt pavement replacement. Interim concrete pavement maintenance, including isolated repairs should be funded from O + M in 2012.

Inventory		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Concrete flatwork (LF)	1,000	7	Unknown	X	20XX

Cracked concrete

Fuel Tanks

Milwaukee Bulk Terminal Warehouse contains a two fuel station dispensers and two metal storage tanks. The storage tank and the dispenser's age are unknown at this time. The dispensers appeared in good overall condition.

The useful life of the fuel storage tanks is up to 30 years. The Port of Milwaukee should anticipate replacement of the tanks by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Fuel Dispenser	2	5	Unknown	X	20XX
Fuel Storage Tank	2	7	Unknown	X	20XX

Fuel tanks and dispenser system

Milwaukee Bulk Terminal	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	CRDM 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Envelope Components																		
Doors, Garage, Phased	2	EA	$7,300	$14,600	$83,000	15	5	2017						$17,000				
Doors, Service, Phased	2	EA	$2,800	$5,600	$14,000	35	5	2017						$6,000				
Light Fixtures	7	LF	$800.00	$5,600	$7,000	35	8	2020									$7,000	
Roof, 1, EPDM	112	SQ	$1,500	$168,000	$208,000	20	8	2020									$208,000	
Roof, 2, EPDM	20	SQ	$1,500	$30,000	$37,000	20	8	2020									$37,000	
Roof, 3, EPDM	38	SQ	$1,500	$57,000	$71,000	20	8	2020									$71,000	
Roof, 4, , Awning Removal	1	EA	$5,000	$5,000	$5,000	20	0	2012	$5,000									
Siding, Masonry	1	LS	$37,000	$37,000	$100,000	15	3	2015				$40,000						
Windows, Replacement	1	LS	$146,000	$146,000	$158,000	35	3	2015				$158,000						
Interior Components																		
Light Fixtures	1	LS	$14,000	$14,000	$16,000	35	5	2017						$16,000				
Renovation, Offices	1	LS	$59,000	$59,000	$67,000	20	5	2017						$67,000				
Renovation, Rest Rooms	1	LS	$13,000	$13,000	$15,000	35	5	2017						$15,000				
Control Components																		
Electrical, Phase 1	1	LS	$66,000	$66,000	$75,000	15	5	2017						$75,000				
Electrical, Phase 2	1	LS	$41,000	$41,000	$63,000	15	16	2028										
HVAC, Boiler/Radiators	1	LS	$50,000	$50,000	$57,000	20	5	2017						$57,000				
Life Safety System	1	LS	$4,000	$4,000	$5,000	20	5	2017						$5,000				
Split System	1	LS	$14,000	$14,000	$17,000	20	8	2020									$17,000	
Garage Components																		
Light Fixtures	49	EA	$350	$17,150	$24,000	35	12	2024										
Paint Finishes	1	LS	$18,000	$18,000	$25,000	35	12	2024										
Unit Heaters	1	EA	$2,500	$2,500	$3,000	35	12	2024										
Site Features																		
Asphalt Pavement, Phased	6,700	SY	$36.00	$241,200	$609,000	20	4	2016					$268,000					
Concrete Flatwork	1,000	LF	$8.00	$8,000	$20,000	50+	4	2016					$9,000					
Fuel Tanks	2	EA	$10,000	$20,000	$28,000	30	13	2025										
			Total 20 Year Cost		$1,555,000			**Annual Cost**	$5,000	$0	$0	$198,000	$277,000	$258,000	$0	$0	$340,000	$0
								CRV	$1,201,828	$1,234,277	$1,267,603	$1,301,828	$1,336,977	$1,373,076	$1,410,149	$1,448,223	$1,487,325	$1,527,483
								FCI	0.01	0.00	0.00	0.30	0.00	0.38	0.00	0.00	0.46	0.00

Comments

a) UL is Useful Life and RUL is Remaining Useful Life

b) The annual building materials inflation rate estimate is estimated at 2.70%

c) CRV is the Current Replacement Value

d) CRDM is Capital Repair/Deferred Maintenance

Milwaukee Bulk Terminal	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Envelope Components																		
Doors, Garage, Phased	2	EA	$7,300	$14,600	$83,000	15	5	$19,000					$22,000					$25,000
Doors, Service, Phased	2	EA	$2,800	$5,600	$14,000	35	5				$8,000							
Light Fixtures	7	LF	$800.00	$5,600	$7,000	35	8											
Roof, 1, EPDM	112	SQ	$1,500	$168,000	$208,000	20	8											
Roof, 2, EPDM	20	SQ	$1,500	$30,000	$37,000	20	8											
Roof, 3, EPDM	38	SQ	$1,500	$57,000	$71,000	20	8											
Roof, 4, , Awning Removal	1	EA	$5,000	$5,000	$5,000	20	0											
Siding, Masonry	1	LS	$37,000	$37,000	$100,000	15	3									$60,000		
Windows, Replacement	1	LS	$146,000	$146,000	$158,000	35	3											
Interior Components																		
Light Fixtures	1	LS	$14,000	$14,000	$16,000	35	5											
Renovation, Offices	1	LS	$59,000	$59,000	$67,000	20	5											
Renovation, Rest Rooms	1	LS	$13,000	$13,000	$15,000	35	5											
Control Components																		
Electrical, Phase 1	1	LS	$66,000	$66,000	$75,000	15	5											
Electrical, Phase 2	1	LS	$41,000	$41,000	$63,000	15	16							$63,000				
HVAC, Boiler/Radiators	1	LS	$50,000	$50,000	$57,000	20	5											
Life Safety System	1	LS	$4,000	$4,000	$5,000	20	5											
Split System	1	LS	$14,000	$14,000	$17,000	20	8											
Garage Components																		
Light Fixtures	49	EA	$350	$17,150	$24,000	35	12			$24,000								
Paint Finishes	1	LS	$18,000	$18,000	$25,000	35	12			$25,000								
Unit Heaters	1	EA	$2,500	$2,500	$3,000	35	12			$3,000								
Site Features																		
Asphalt Pavement, Phased	6,700	SY	$36.00	$241,200	$609,000	20	4				$341,000							
Concrete Flatwork	1,000	LF	$8.00	$8,000	$20,000	50+	4				$11,000							
Fuel Tanks	2	EA	$10,000	$20,000	$28,000	30	13				$28,000							
		Total 20 Year Cost			$1,555,000			$19,000	$0	$52,000	$388,000	$0	$22,000	$63,000	$0	$60,000	$0	$25,000
Comments								$1,568,725	$1,611,080	$1,654,580	$1,699,253	$1,745,133	$1,792,252	$1,840,642	$1,890,340	$1,941,379	$1,993,796	$2,047,629
a) UL is Useful Life and RUL is Remaining Useful Life								0.02	0.00	0.06	0.01	0.00	0.02	0.07	0.00	0.06	0.00	0.02
b) The annual building materials inflation rate estimate is estimated at	2.70%																	
c) CRV is the Current Replacement Value																		
d) CRDM is Capital Repair/Deferred Maintenance																		

XXX/2012

FACILITIES CONDITION ASSESSMENT PROGRAM

NORTH AMERICAN SALT COMPANY BUILDING

Facilities Development | Management

Contents

Executive Summary

Property Analysis Summary

North American Salt Building is located on the south end portion of the Port of Milwaukee. It is located at 2061 S. Harbor Drive with S. Carferry to the East and E. Bay St. to the north. The building was constructed in 1955 and comprises of 1,180 square feet of office space and 6,970 square feet of garage space.

North American Salt Building Information				
Building Name	Year Built/Age	Square Feet	CRV	FCI/Rating
North American Salt Building	1955/57	8,150	$ 1,060,000	

Near term projects are those that are anticipated with the first six years of the funding analysis. These projects are defined by priority. High priority projects are those that require capital expenditures for remediation within two years. Medium priority projects are those that require capital expenditures from three- to six-years. Low priority projects are those that require capital expenditures beyond six years. Subsequent facility inspections will adjust the anticipated priorities. The following table summarizes the high and medium priority projects at North American Salt Building.

Priority	Year	Near Term Projects
High	**1**	
	2	
Medium	**3**	
	4	
	5	
	6	

Annual expenditures for the North American Salt Building vary from year– to –year as indicated from the graph below.

ADD ANNUAL EXPENDITURE GRAPH HERE

The most significant category of North American Salt Building expenditures pertains to **building envelope** repairs as shown below.

ADD PIE CHART HERE

Component Inventory

The property components at North American Salt Building are categorized as follows:

North American Salt Building is Capital Expenditures

Building Envelope Components

- Doors, Garage
- Doors, Service
- Gutters and Downspouts
- Light Fixtures
- Roof, EPDM
- Siding, Masonry
- Windows

Building Interior Components

- Offices
- Rest Rooms

Electrical Components

- Electrical, Upgrades
- HVAC, Boiler/Radiators
- HVAC, Split Systems

Garage Components

- Light Fixtures
- Paint Finishes

Site Features

- Asphalt Pavement, Phased
- Fence, Chain Link

O+M Responsibility

- Paint Finishes
    - Exterior Components
    - Touch-Up
- Unit Heaters
- Other Items Normally Funded by O+M

Long Lived

- Foundation
- Structural Frame

Others Responsibility

Maintenance Items

The facility inspection observed deficiencies that require maintenance repairs/attention. Timely remediation will minimize the cost for remediation. Whereas, deferred maintenance may result in exacerbation of deterioration and more costly future repairs.

Building Envelope

1) Roof Repairs

Site Features

2) Asphalt Pavement

i. Crack repair, patch , and seal coat

Envelope Components

Doors, Garage

North American Salt Building includes two functional garage doors and eight panel installations. The useful for overhead garage doors is up to 15 years. Port of Milwaukee should anticipate phased garage door replacement beginning by 20XX. The metal panels are considered long-lived at this time.

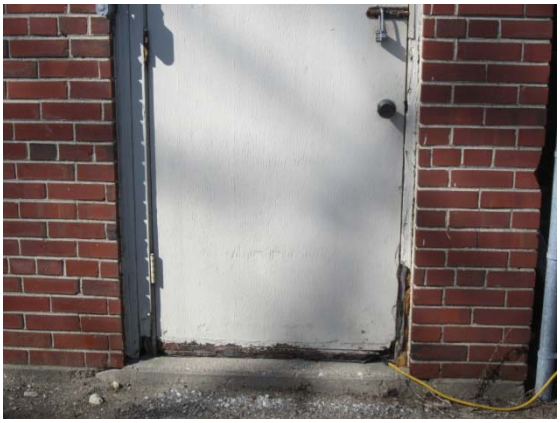
Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
12 x 14	2	6	Unknown	X	20XX
Metal panel (SF)	1,680	6	Unknown	LL	Long Lived

South elevation overhead garage door

Doors, Service

North American Salt Building includes two metal and three wood service doors. The doors are in varied conditions and should be replaced in a phased manner beginning by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Service Doors, Metal/Wood	5	6	Unknown	X	20XX
Garage Door 14’ x 20’	2	8	Unknown	X	20XX



Deteriorated wood service door

West service doors with deterioration

Roofs

North American Salt Building roof comprises of three roofs. Generally, the roofs are inspected and maintained by a third party. However, this facility was inspected. Roof component inventory is estimated from onsite measurements. Additional information is required to more accurately estimate cost and replacement.

Ballasted EPDM roofs have a useful life of 20 years. The City of Milwaukee anticipates their replacement by 2019.

Inventory (SQ)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Roof 1 (East)	16	Unknown	Unknown	X	20XX
Roof 2 (Middle)	33	Unknown	Unknown	X	20XX
Roof 3 (West)	38	Unknown	Unknown	X	20XX

Gutters and Downspouts

North American Salt Building includes 303 linear feet of gutters and 62 linear feet of downspouts. The useful life of gutters and downspouts is 20 years. Replacement of gutters and downspouts should be conducted with the roof replacement by 20XX.

Inventory (LF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Gutters	303	7	Unknown	X	20XX
Downspouts	62	7	Unknown	X	20XX

Gutters at north elevation

Siding, Masonry

North American Salt Building exterior comprises 1,490 square feet of brick masonry and 2,855 square feet of concrete masonry unit (CMU). Additionally, 410 linear feet of metal lintels and 625 linear feet of sealant (windows) exist at North American Salt Company.

The brick masonry and CMU is in fair overall condition. Visual onsite inspection of the brick masonry and CMU identified multiple locations of cracked brick/CMU and mortar.

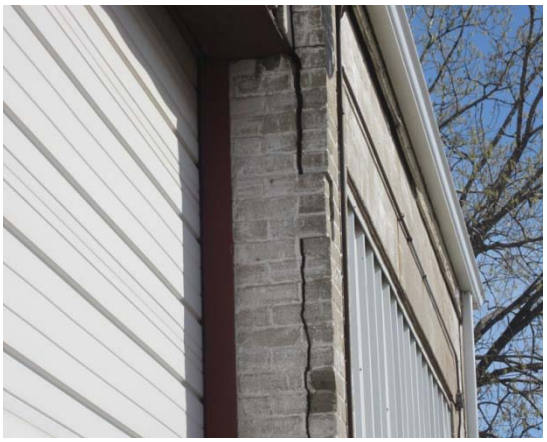
For budgetary purposes, the Port of Milwaukee should anticipate the following scope of work:

- Façade inspection
- Brick/CMU replacement of up to 350 square feet
- Repointing of up to 525 square feet
- Sealant replacement of up to 625 linear feet
- Lintel replacement of up to 50 linear feet

The actual scope of work will may change during design and construction.

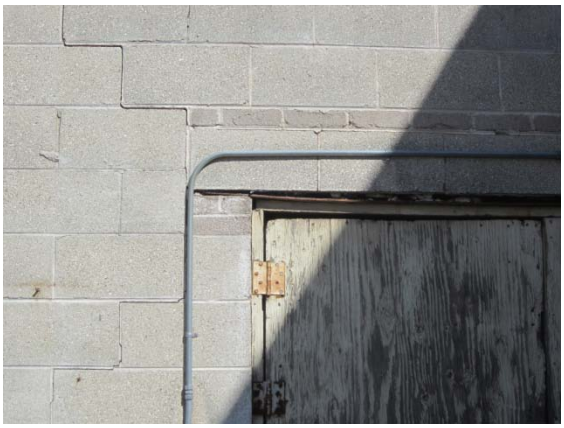
Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Brick Masonry	1,490	5	57	0	2012
Concrete Masonry Unit	2,855	5	57	0	2012
Caulk (LF)	625	5	57	0	2012
Metal Lintels (LF)	410	5	57	0	2012

Cracked brick mortar at east elevation



Cracked brick at south elevation

Deflected/damaged lintel and CMU



Step crack and lintel deflection

Deteriorated lintel at south elevation

CMU and brick step cracking

Windows

North American Salt Company includes 380 square feet of windows. Typical useful life expectancy for windows is up to 35 years. The inspection revealed that the windows exhibited the onset of rust at frames. The window at the southwest corner experiences leaks. The windows likely vary in age with a majority either original to building construction or replaced decades ago. The Port of Milwaukee should anticipate window replacement by 20XX. Isolated window replacements should be conducted from the operating budget.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Windows	380	5	57	XX	20XX

South elevation windows

Onset of rust at window

Interior Components

Office Renovations

North American Salt Building comprises various interior finishes that are in fair condition overall. These components are associated with the office spaces and storage rooms. The inspection revealed dated interiors and various isolated locations of deterioration. The useful life of interior renovations is up to 20 years.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Acoustic Tile Ceiling (SF)	1,480	5	Unknown	X	20XX
Wood Panel (SF)	1,090	5	Unknown	X	20XX
Painted Walls/Ceiling (SF)	905	5	Unknown	X	20XX
Vinyl Tile Floor	17	5	Unknown	X	20XX
Carpet Floor (SY)	113	5	Unknown	X	20XX
Light Fixtures, Fluorescent	22	5	Unknown	X	20XX
Light Fixtures, Ceiling	2	5	Unknown	X	20XX
Counters (LF)	28	5	Unknown	X	20XX

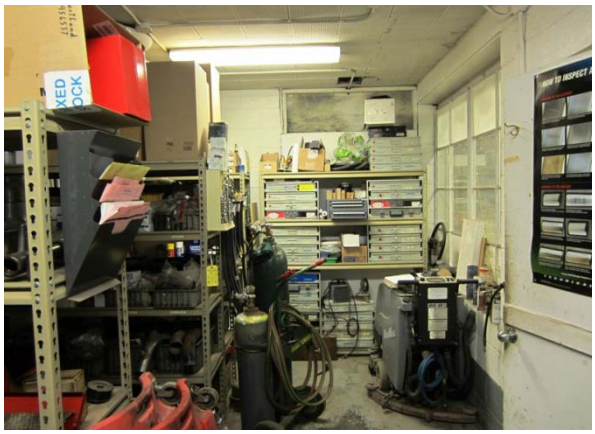
Front office area

Stained and missing ceiling tiles

Ceiling water damage

Floor carpet with stains

Typical office view



Maintenance and tool room

Rest Rooms, Renovations

Milwaukee Bulk Terminal comprises of two rest rooms. The rest rooms are in satisfactory condition and have a useful life of up to 35 years. The Port of Milwaukee should plan rest room renovation by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Paint Walls/Ceilings (SF)	175	5	Unknown	X	20XX
Wood Panel Walls (SF)	365	5	Unknown	X	20XX
Ceramic Tile Floor (SF)	150	5	Unknown	X	20XX
Light Fixtures	5	5	Unknown	X	20XX
Toilet	2	5	Unknown	X	20XX
Urinal	1	5	Unknown	X	20XX
Sink	3	5	Unknown	X	20XX
Partition	1	5	Unknown	X	20XX
Mirrors	2	5	Unknown	X	20XX

Rest room finishes

Rest room finishes

Control Components

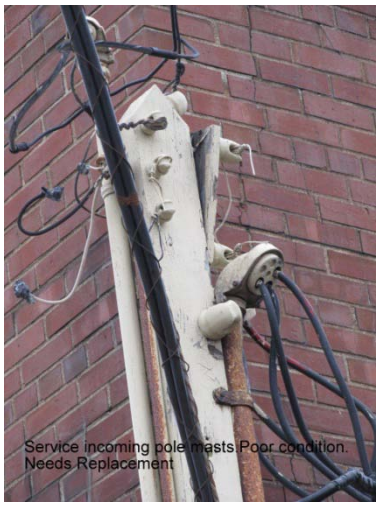
Electrical

North American Salt Company electrical components include secondary and branch circuit distribution. The components are at varied ages and conditions. Based on condition, the Port of Milwaukee should anticipate phased service upgrades/replacement of electrical components.

Phase 1 upgrades are scheduled for electrical components that are in condition 4 and below (shaded red). Phase 2 upgrades are scheduled for electrical components that are in condition 5-6 (shaded blue).The remaining components, rated 7 and above (shaded green) are long-lived. The following table summarizes the initial phases and conditions. Actual scope of work may vary at time of electrical upgrades.

Part / Equipment Name	Year Installed	Manufacturer/Material	Capacity / Area / Size	Condition
Electrical - Secondary				
Utility Revenue Meter	1954	Erickson	400Amp/240/3phase Grounded B Pole Mount	9
Utility Revenue Meter	1958	Erickson	200Amp/120/240 Single Phase	9
Transformer	1962	Square-D	37.5KVA 240/120/240 1phase	6
Utility Service-WE Energies	1958	Transformer RTE	200Amp/120/240 1phase pole mount	6
Utility Service-WE Energies	1954	Transformer RTE	400Amp/240/3phase Grounded B Pole Mount	5
Pole Mast Incoming	1954	Crouse Hinds	2" Mast 240/3phase	5
Welder Fused Disconnect	1954	Cutler-Hammer	100Amp/240 3phase	5
New Build Addition Disconnect	1964	Square-D	100Amp/240 3phase	5
Transformer Feeder	1962	Square-D	200Amp/240/3phase	5
Pole Mast Incoming	1958	Crouse Hinds	2" Mast 120/240 single phase	5
Clampmatic Main Breaker	1954	Clampmatic	400Amp Vacuum Breaker	4

Fused Disconnect(Abandoned)	1954	Wadsworth	400Amp/240/3phase Grounded B Pole Mount	4
2-Pole Main CB after Meter	1958	Cutler-Hammer	200Amp 120/240/Single Phase	4
Water Heater Circuit Breaker	1958	Magna-Trip	20Amp/240Volt Single Phase	4
Lighting Circuit Breaker	1958	Magna-Trip	20Amp/240Volt Single Phase	4
Various Disconnects QTY:3	1954	Cutler-Hammer	40 amp /240/Single Phase	4
Electrical - Branch				
Panel LP	1972	Cutler-Hammer	200 Amp MLO 120/240 42 position	7
Fused Welder Disconnect	1972	Cutler-Hammer	50 Amp Fuses	4
Sub-Panel New Addition	1972	Cutler-Hammer	100 Amp MLO 120/240 12 position	3



Incoming pole mast reported in poor condition

Outdated electrical equipment and NEC non-compliant

HVAC, Boiler/Radiators

Forestry South HQ includes one building heat boiler in the mechanical room. The boiler is reported in poor operating condition at an unknown age. The useful life of boilers in this capacity is up to 30 years. The City of Milwaukee anticipates its replacement by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Boiler	1	4	Unknown	XX	20XX
Radiators	2	5	57	XX	20XX
Baseboard radiation (LF)	43	5	57	XX	20XX

Building heat boiler

Building radiator

Baseboard radiation

Split Systems

North American Salt Building comprises two split systems. The split system comprises of an internal evaporator with a reticulating fan and an external condensing unit. The useful life of split systems is up to 20 years. The Port of Milwaukee anticipates their replacement by 20XX. Interim partial replacements and repairs are funded by O + M.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Split Systems (2)					
Evaporator (Tons)	1.5	4	Unknown	X	20XX

Air Conditioner unit

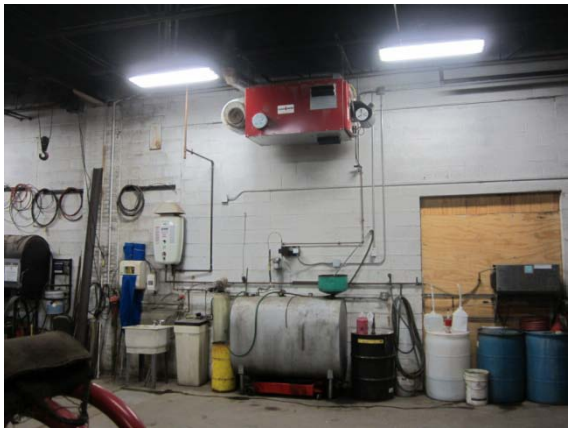
Condenser unit

Garage Components

Light Fixtures

North American Salt Company includes two garages. One is occupied by the lessee and the Port of Milwaukee occupies the other for storage. Forty-four light fixtures exist within the two garages. Warehouse interior includes 42 fluorescent light fixtures and seven pendant light fixtures. The fixtures appear in satisfactory condition. Port of Milwaukee should anticipate their replacement by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Light Fixtures, Fluorescent	37	5	Unknown	X	20XX
Light Fixtures, Wall Mounted	6	5	Unknown	X	20XX
Light Fixtures, Ceiling Mounted	1	5	Unknown	X	20XX



Light fixtures at lessee garage

Light fixtures at Port garage

Paint Finishes

North American Salt Company lessee garage includes a paint finish application comprising 11,000 square feet. Its condition is satifactory overall. Port should plan paint finish application by 20XX.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Paint Finish	11,000	6	Unknown	XX	20XX

Painted garage wall

Site Features

Asphalt, Gravel Pavement

North American Salt Building property contains 625 square yards of asphalt pavement. The remaining lot is comprised of gravel. The inspection revealed the entrance area of asphalt pavement is uneven, crumbling and eroding. The overall condition of the pavement is fair. Port of Milwaukee should anticipate asphalt pavement replacement by 20XX.

Inventory		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt/Gravel Pavement (SY)	5,615	5	Unknown	X	20XX

Entrance Asphalt driveway overview

South elevation pot hole

North elevation

Fence, Chain Link

North American Salt Company contains a 2,000 linear feet of chain link fence and gates with Barb wire. The fences appear in satisfactory condition. The useful life of a chain link fence is up to 35 years. Port of Milwaukee should anticipate its replacement by 2027.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Chain Link Fence (LF)	2,000	6	Unknown	XX	20XX
Gates	3	6	Unknown	XX	20XX

Fence at north perimeter

Fence gate

North American Salt Company	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	CRDM 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Envelope Components																		
Doors, Garage, Phased	1	EA	$7,700	$7,700	$20,000	15	6	2018							$9,000			
Doors, Service	2	EA	$2,000	$4,000	$10,000	35	3	2015				$4,000						
Gutters and Downspouts	365	LF	$15.00	$5,475	$8,000	20	13	2025										
Light Fixtures	12	LF	$380.00	$4,560	$5,000	20	6	2018							$5,000			
Roof, 1	16	SQ	$1,900	$30,400	$41,000	20	11	2023										
Roof, 2	33	SQ	$1,900	$62,700	$84,000	20	11	2023										
Roof, 3	38	SQ	$1,900	$72,200	$97,000	20	11	2023										
Siding, Masonry	1	LS	$44,000	$44,000	$110,000	15	0	2012	$44,000									
Windows, Replacement	1	LS	$43,000	$43,000	$49,000	35	5	2017						$49,000				
Interior Components																		
Renovation, Offices	1	LS	$34,000	$34,000	$97,000	15	7	2019								$41,000		
Renovation, Rest Rooms	1	LS	$14,500	$14,500	$17,000	35	7	2019								$17,000		
Control Components																		
Electrical, Phase 1	1	LS	$43,000	$43,000	$47,000	15	3	2015				$47,000						
Electrical, Phase 2	1	LS	$59,000	$59,000	$86,000	15	14	2026										
HVAC, Boiler/Radiators	1	LS	$25,000	$25,000	$26,000	30	2	2014			$26,000							
HVAC, Split Systems	2	EA	$13,000	$26,000	$29,000	20	4	2016					$29,000					
Garage Components																		
Light Fixtures	41	EA	$350	$14,350	$20,000	35	12	2024										
Paint Finishes	1	LS	$17,000	$17,000	$23,000	15	12	2024										
Site Features																		
Asphalt Pavement, Replacement	625	SY	$36.00	$22,500	$28,000	20	8	2020									$28,000	
Fence, Chain Link	2,000	LF	$35.00	$70,000	$107,000	20	16	2028										
Total 20 Year Cost			$861,000	**Annual Cost**	$44,000	$0	$26,000	$51,000	$29,000	$49,000	$14,000	$58,000	$28,000	$0				
Comments																		
a) UL is Useful Life and RUL is Remaining Useful Life				**CRV**	$685,957	$704,478	$723,499	$743,033	$763,095	$783,699	$804,859	$826,590	$848,908	$871,828				
b) The annual building materials inflation rate estimate is estimated at	2.70%			**FCI**	0.06	0.00	0.04	0.07	0.04	0.06	0.02	0.07	0.00	0.00				
c) CRV is the Current Replacement Value																		
d) CRDM is Capital Repair/Deferred Maintenance																		

North American Salt Company	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Envelope Components																		
Doors, Garage, Phased	1	EA	$7,700	$7,700	$20,000	15	6				$11,000							
Doors, Service	2	EA	$2,000	$4,000	$10,000	35	3				$6,000							
Gutters and Downspouts	365	LF	$15.00	$5,475	$8,000	20	13				$8,000							
Light Fixtures	12	LF	$380.00	$4,560	$5,000	20	6											
Roof, 1	16	SQ	$1,900	$30,400	$41,000	20	11		$41,000									
Roof, 2	33	SQ	$1,900	$62,700	$84,000	20	11		$84,000									
Roof, 3	38	SQ	$1,900	$72,200	$97,000	20	11		$97,000									
Siding, Masonry	1	LS	$44,000	$44,000	$110,000	15	0						$66,000					
Windows, Replacement	1	LS	$43,000	$43,000	$49,000	35	5											
Interior Components																		
Renovation, Offices	1	LS	$34,000	$34,000	$97,000	15	7										$56,000	
Renovation, Rest Rooms	1	LS	$14,500	$14,500	$17,000	35	7											
Control Components																		
Electrical, Phase 1	1	LS	$43,000	$43,000	$47,000	15	3											
Electrical, Phase 2	1	LS	$59,000	$59,000	$86,000	15	14					$86,000						
HVAC, Boiler/Radiators	1	LS	$25,000	$25,000	$26,000	30	2											
HVAC, Split Systems	2	EA	$13,000	$26,000	$29,000	20	4											
Garage Components																		
Light Fixtures	41	EA	$350	$14,350	$20,000	35	12			$20,000								
Paint Finishes	1	LS	$17,000	$17,000	$23,000	15	12			$23,000								
Site Features																		
Asphalt Pavement, Replacement	625	SY	$36.00	$22,500	$28,000	20	8											
Fence, Chain Link	2,000	LF	$35.00	$70,000	$107,000	20	16							$107,000				
Total 20 Year Cost			$861,000					$0	$222,000	$43,000	$25,000	$86,000	$66,000	$107,000	$0	$0	$56,000	$0
Comments																		
a) UL is Useful Life and RUL is Remaining Useful Life								$895,368	$919,542	$944,370	$969,868	$996,055	$1,022,948	$1,050,568	$1,078,933	$1,108,064	$1,137,982	$1,168,707
b) The annual building materials inflation rate estimate is estimated at	2.70%							0.00	0.24	0.05	0.03	0.09	0.06	0.00	0.00	0.00	0.05	0.00
c) CRV is the Current Replacement Value																		
d) CRDM is Capital Repair/Deferred Maintenance																		

XXX/2012

FACILITIES CONDITION ASSESSMENT PROGRAM

SANDBLAST SHED

Facilities Development | Management

Contents

Executive Summary

Property Analysis Summary

The Sandblasting Shed is located at the north central portion of the Port of Milwaukee. It is located at 1792 S. Carferry Drive. The Sandblasting Shed comprises of 2,240 square feet.

Sandblasting Shed by the Numbers	
Construction Date/Age	XX
Square Feet	2,240
Current Replacement Value (2012)	$205,858
Facility Condition Index/Rating	0.13/Bad

Near term projects are those that are anticipated with the first six years of the funding analysis. These projects are defined by priority. High priority projects are those that require capital expenditures for remediation within two years. Medium priority projects are those that require capital expenditures from three- to six-years. Low priority projects are those that require capital expenditures beyond six years. Subsequent facility inspections will adjust the anticipated priorities. The following table summarizes the high and medium priority projects at Coil and Bradford Buildings.

Priority	Year	Near Term Projects
High	**1**	Electrical – Primary Distribution Electrical – Secondary Distribution
	2	
Medium	**3**	
	4	
	5	
	6	

Annual expenditures for the Sandblasting Shed vary from year– to –year as indicated from the graph below.

ADD ANNUAL EXPENDITURE GRAPH HERE

The most significant category of the Sandblasting Shed expenditures pertains to **building envelope** repairs as shown below.

ADD PIE CHART HERE

Component Inventory

The property components at the Sandblasting Shed are categorized as follows:

The Sandblasting Shed

Building Envelope Components

- Roof, Metal
- Siding, Metal (includes fiberglass)
- Windows, Screen

Electrical Components

- Electrical
  - Primary, Near Term
  - Primary, Subsequent
  - Secondary

Envelope Components

Roof, Metal

The Sandblast Shed includes a 2,240 square metal roof. The roof was inspected from the ground level by DPW facilities and exhibited the onset of rust. The useful life of a metal roof is up to 35 years. Its replacement is anticipated by 2018, unless the Sandblast Shed is removed prior to these capital repairs.

Inventory (SQ)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Metal Roof	2,240	6	Unknown	6	2018

Siding, Metal

Sandblast Shed includes approximately 3,710 square feet of corrugated metal siding and 190 square feet of fiberglass siding. The siding is likely original to the facility. The inspection revealed isolated occurrences of damaged/bent siding. The useful life of exterior siding is up to 35 years. Port of Milwaukee should anticipate its replacement by 2018, unless the Sandblast Shed is removed prior to these capital repairs.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Siding, Metal	3,710	5	Unknown	X	20XX
Siding, Fiberglass	190	5	Unknown	X	20XX

East elevation

Damaged siding at east elevation

Rusted metal fasters at siding

West elevation

Windows, Replacement

Sandblast Shed comprises 640 square feet of windows and screen. Typical useful life expectancy for windows is up to 35 years. Currently there are no windows in place but only screens. The City of Milwaukee anticipates wooden frame window replacement by 2018.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Windows	640	3	Unknown	X	20XX

Typical wooden frame windows

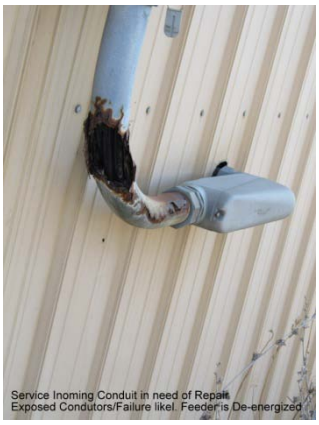
Inside window and screen

Electrical Components

Electrical

Sandblast Shed includes primary and secondary services. The primary service includes a utility meter that was replaced in 1995 (17 years) and reported in good operational condition. Additionally, the primary meter includes incoming service and distribution in critical and failed condition. The secondary service is noted in failed condition. Port of Milwaukee should determine long-term usage of the Sandblast Shed and property prior to conducting capital expenditures. However, for the purposes of this analysis, the critical and failed components should be replaced in 2012.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Primary					
Utility Revenue Meter	1	7	17	X	We-energies
Incoming Service	1	2	40	0	2012
Service Panel/Distribution	1	1	40	0	2012
Secondary					
Distribution/Lighting	1	1	40	0	2012



De-energized incoming service

Service panel

Sandblast Shed	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	CRDM 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Envelope Components																			
Roof, Metal	25	SQ	$1,200	$30,000	$35,000	35	6	2018							$35,000				
Siding, Metal (includes fiberglass)	3,900	SF	$14.50	$56,550	$66,000	35	6	2018							$66,000				
Windows, Screen	640	SF	$12.50	$8,000	$9,000	35	6	2018							$9,000				
Electrical Components																			
Electrical, Upgrades	1	LS	$11,500	$11,500	$12,000	40	0	2012	$12,000										
Electrical, Primary Distribution, Subsequent	1	LS	$3,000	$3,000	$5,000	40	20	2032											
Electrical, Secondary Distribution	1	LS	$14,000	$14,000	$14,000	40	0	2012	$14,000										
		Total 20 Year Cost			$110,000			**Annual Cost**	$26,000	$0	$0	$0	$0	$0	$110,000	$0	$0	$0	$0
Comments								**CRV**	$205,858	$211,416	$217,124	$222,987	$229,007	$235,191	$241,541	$248,062	$254,760	$261,639	$268,703
a) UL is Useful Life and RUL is Remaining Useful Life								**FCI**	0.13	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00

b) The annual building materials inflation rate estimate is estimated at 2.70%
c) CRV is the Current Replacement Value
d) CRDM is Capital Repair/Deferred Maintenance

Sandblast Shed	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Envelope Components																		
Roof, Metal	25	SQ	$1,200	$30,000	$35,000	35	6	2018										
Siding, Metal (includes fiberglass)	3,900	SF	$14.50	$56,550	$66,000	35	6	2018										
Windows, Screen	640	SF	$12.50	$8,000	$9,000	35	6	2018										
Electrical Components																		
Electrical, Upgrades	1	LS	$11,500	$11,500	$12,000	40	0	2012										
Electrical, Primary Distribution, Subsequent	1	LS	$3,000	$3,000	$5,000	40	20	2032										$5,000
Electrical, Secondary Distribution	1	LS	$14,000	$14,000	$14,000	40	0	2012										
			Total 20 Year Cost		$110,000			**Annual Cost**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,000
Comments								**CRV**	$275,958	$283,409	$291,061	$298,919	$306,990	$315,279	$323,791	$332,534	$341,512	$350,733
a) UL is Useful Life and RUL is Remaining Useful Life								**FCI**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
b) The annual building materials inflation rate estimate is estimated at	2.70%																	
c) CRV is the Current Replacement Value																		
d) CRDM is Capital Repair/Deferred Maintenance																		

3/20/2012

FACILITIES CONDITION ASSESSMENT PROGRAM

SEA SCOUTS BUILDINGS

Facilities Development | Management

Contents

Executive Summary

Property Analysis Summary

Sea Scout Buildings 1 and 2 are located at the south end portion of the Port of Milwaukee. They are located at 2428 S. Lincoln Memorial Drive and are between Lincoln Memorial Drive to the west and Lake Michigan to the east. The buildings were constructed in 1956/1979 and comprises of a total of 2,380 square feet.

Bradford and Coil Buildings Information				
Building Name	Year Built/Age	Square Feet	CRV	FCI/Rating
Sea Scout 1	1956/56	960	$	0.13/Bad
Sea Scout 2	1979/33	1,740	$	0.13/Bad

Near term projects are those that are anticipated with the first six years of the funding analysis. These projects are defined by priority. High priority projects are those that require capital expenditures for remediation within two years. Medium priority projects are those that require capital expenditures from three- to six-years. Low priority projects are those that require capital expenditures beyond six years. Subsequent facility inspections will adjust the anticipated priorities. The following table summarizes the high and medium priority projects at Coil and Bradford Buildings.

Priority	Year	Near Term Projects
High	**1**	
	2	
Medium	**3**	
	4	
	5	
	6	

Annual expenditures for the Coil and Bradford Buildings vary from year– to –year as indicated from the graph below.

ADD ANNUAL EXPENDITURE GRAPH HERE

The most significant category of Coil and Bradford Buildings expenditures pertains to **building envelope** repairs as shown below.

ADD PIE CHART HERE

Component Inventory

The property components at Coil and Bradford Buildings are categorized as follows:

Sea Scout Building 1

Building Envelope Components

- Gutters and Downspouts
- Roof, Asphalt Shingle
- Siding, Masonry and Wood
- Windows and Doors

Building Interior Components

- Renovation
- Light Fixtures

Sea Scout Building 2

Building Envelope Components

- Door, Garage
- Roof, Metal
- Siding, Metal

Building Interior Components

- Light Fixtures

Site Features

- Asphalt Pavement, Phased
- Electrical Upgrades
- Fence, Chain Link
- Guard Rail
- Pier, Wood

O+M Responsibility

- Paint Finishes
  - Exterior Components
  - Touch-Up
- Other Items Normally Funded by O+M

Long Lived

- Foundations
- Structural Frame

Others Responsibility

Maintenance Items

The facility inspection observed deficiencies that require maintenance repairs/attention. Timely remediation will minimize the cost for remediation. Whereas, deferred maintenance may result in exacerbation of deterioration and more costly future repairs.

Building Envelope

1) Roof Repairs
   i. All Buildings

Site Features

2) Asphalt Pavement
   i. Crack repair, patch , and seal coat

Sea Scout 1

Envelope Components

Gutters and Downspouts

Sea Scout Building 1 includes 66 linear feet of gutters and 13 linear feet of downspouts at the building. The useful life of gutters and downspouts is 20 years. Replacement of gutters and downspouts should be conducted with the metal roof replacement by 2012.

Inventory (LF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Gutters	66	1	Unknown	0	2012
Downspouts	13	2	Unknown	0	2012

Gutters with no downspout

Gutters and downspout

Roof, Asphalt Shingle

Sea Scout Building 1 asphalt shingle roof comprises ten squares. The asphalt shingle roofs ages are unknown. The roof is inspected by a third party, who reports the roofs in poor condition and recommends near term replacement. The inspection revealed field shingle deterioration in the form of: weathered, curled, missing, loose, and missing protective granules. The wood fascia at the rake edge is weathered, damaged, and rotting.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt Shingle Roof	10	2	Unknown	X	20XX

Roof overview

Roof Shingle deterioration

Wood fascia is weathered, damaged, and rotting

Valley flashings are rusting

Siding, Masonry + Wood

Sea Scout Building 1 exterior comprises 1,060 square feet of brick masonry and 490 square feet of wood siding, soffit and fascia original to the building construction. The brick masonry is in good to fair overall condition. Visual onsite inspection identified minor defects. Additionally, the inspection revealed rusted/deflected metal lintels and window frames along with cohesion/adhesion caulk failure. For budgetary purposes, the City of Milwaukee bases its cost estimate for masonry and wood work on the following:

Port of Milwaukee should anticipate an initial and subsequent exterior repair project as follows:

	Initial	Subsequent
Façade Inspection	Yes	Yes
Masonry Replacement (SF)	50	42
Masonry Repointing (SF)	85	85
Sealant/Caulk (LF)	117	117
Wood Replacement (SF)	490	No
Wood/Lintel Painting (SF)	500	500

The actual scope of work will may vary during design and construction.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Brick Masonry	1,060	6	56	0	2012
Wood Siding, Soffit & Fascia	490	2	56	0	2012
Caulk (LF)	117	4	56	0	2012
Metal Lintels (LF)	21	4	56	0	2012
Concrete Sill (LF)	12	5	56	0	2012

Brick from the east elevation

Cracked brick mortar at east elevation

Rusted window lintel

Displaced door frame caulking

Paint finish deterioration and exposed/deteriorated wood siding

Broken window and rusted frame

Windows and Doors, Pedestrian

Sea Scout Building 1 includes a combination of metal and wood doors. The inspection reveals that all the doors are in very poor condition. The Port should anticipate phased replacement of 2 doors every seven years beginning by 2012.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Service Door, Metal	1	4	Unknown	X	20XX
Service Doors, Wood	5	4	Unknown	X	20XX
Windows (SF)	12	3	Unknown	X	20XX

Rusting metal door

Damaged wooden doors

Interior Components

Sea Scout Building 1 comprises interior finishes including acoustic tile ceiling, painted walls and ceilings, shelving, and light fixtures. These components are associated with the office spaces, and storage rooms. The useful life of interior renovations is up to 20 years.

The inspection revealed that the interior spaces were in satisfactory condition. Several acoustic ceiling tiles exhibited water damage and soiled wall surfaces consistent with age were observed. The Port has no plans for renovations in the near future.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Acoustic Tile Ceiling (SF)	133	2	Unknown	0	20??
Painted Walls/Ceiling (SF)	1,070	3	Unknown	0	20??
Epoxy Floor (SF)	310	3	Unknown	0	20??
Light Fixtures, Fluorescent	8	4	Unknown	0	20??
Light Fixtures, Ceiling	2	2	Unknown	0	20??

Acoustic ceiling tile missing

Office area

Storage work area

Hole in the ceiling and lighting fixture

Sea Scout Building 2

Envelope Components

Door, Garage

Sea Scout Building includes one fiberglass overhead garage door and one service door. The garage door was open and appeared in fair condition.

The useful life of garage doors in this capacity is up to 15 years. Port of Milwaukee should plan replacement of the garage door and service door by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Garage Door 12’ x 15’	1	5	Unknown	X	20XX
Service Door 3’ x 7’	1	5	Unknown	X	20XX

Overhead door

Overhead door with fiberglass damage

Service door

Door with lower door frame damage

Roof, Metal

Sea Scout Building 2 includes a 1,725 square metal roof. The roofs are inspected and maintained by a third party. The last inspection occurred in 2012 where the roofs are indicated to be in poor condition. The inspection revealed the field of roofing is deteriorated and rusting 30 percent throughout. The useful life of metal roofs is up to 35 years. Its replacement is anticipated by 20XX.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Metal Roof	1,725	2	Unknown	X	20XX

Roof overview

Rusted roof section

Damaged roof section

Rusted heater vent

Siding, Metal

Sea Scout Building 2 contains 2,750 square feet of corrugated siding. The siding is at an unknown years. The inspection revealed isolated occurrences of damaged/bent siding mostly concentrated around overhead and service doors. The damage is consistent with the age and use of the facility. The useful life of exterior siding is up to 35 years. Port of Milwaukee should anticipate its replacement by 2032.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Siding	2,750	6	Unknown	X	20XX

North elevation

Damaged siding NW corner

Rusted siding at SW elevation

Loose siding panel at west elevation

Site Features

Asphalt Pavement

The Sea Scout Facility contains 817 SY of asphalt pavement at the entrance and boat storage lot. The inspection revealed isolated locations of asphalt transverse and longitudinal cracking. The overall condition of the pavement is in satisfactory condition.

Inventory		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt Pavement (SY)	817	5	Unknown	X	20XX
Concrete pad (SF)	200	7	Unknown	X	20XX

Entrance Asphalt driveway overview

Large cracking and grass growing

East elevation cracking asphalt pavement

Concrete pavement

Crane

The Sea Scout Facility includes a 1000 pound boat crane (or hoist) that is used to lift vessels into and out of Lake Michigan. The crane is in satisfactory condition. The useful life of a boat crane is up to 35 years. Port of Milwaukee should anticipate its replacement by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Boat Crane (lb)	1000	6	Unknown	X	20XX

Boat Crane east elevation

Cracked foundation

Onset of rust

Electrical

Electrical components are located at the Sea Scout 1 and 2 Buildings, as well as integrated within the site features. These components are at an age of 56 years and are reported in fair condition. Based on condition, the Port of Milwaukee should anticipate one replacement of all components based on the ages and interrelated nature of components. The scope and cost may change at the time of construction.

Part / Equipment Name	Year Installed	Manufacturer Material	Capacity / Area / Size	Condition
Electrical - Secondary				
Utility Service-WE Energies	1960	Transformer RTE	200Amp 120/208 4-wire	6
Utility Revenue Meter	1960	Erickson	200Amp/120/208/ 3ph 4-wire	6
3phase Disconnect 100Amp	1960	ITE	100 Amp breakers	5
Transition Box	1660	Square-D		5
Sea Scout Bldg. Service Disconnect	1960	Square-D	100Amp 120/208/3phase 4-wire	5
Transformer	1960		208/240-1ph Step up	4
Electrical - Distribution				
Distribution Panel MDP	1960	Unknown Possible ITE	100 Amp MLO 120/240 28 position	4
Entire Site requires a major electrical upgrade and replacement. Outside	1960	Various		4
Exterior and Interior Lighting needs to be redone.	1960	Various		4

Secondary distribution and utility meter

Underground utility meter

Code violation at Sea Scout 2

Feeder line

Non-functional light fixture

Transformer

Fence, Chain Link

The Sea Scout Facility contains an 810 linear foot chain link fence at the property perimeter. Port representatives report that 100 linear feet of chain link fence and a sliding gate are to be relocated from the boat storage area to another Port property.

The fences appear in good condition in most all areas, but on the gates there in some rust accumulating. The useful life of a chain link fence is up to 35 years. Port of Milwaukee should anticipate its replacement by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Chain Link Fence (LF)	810	6	Unknown	X	20XX
Gate, 5’ Swing	2	6	Unknown	X	20XX
Gate, 7’ Swing	2	6	Unknown	X	20XX
Gate, 30’ Slide	3	6	Unknown	X	20XX

Rusted/Misaligned chain link fence

Gates and operators with some rust

East elevation chain link sliding gate

Chain link fence along the lake walkway

Guard Rail

The Sea Scout Facility includes 190 linear feet of guard rail and 16 wood posts. The wood posts exhibit some form of deterioration with at least one that appears non-functional. The guard rail exhibits rust, and should be primed/painted as an operating expenditure or coordinated with another capital painting project. The useful life of guard rails is up to 35 years. Port of Milwaukee should anticipate its replacement by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Guard Rail (LF)	190	5	Unknown	X	20XX
Wood Posts	16	5	Unknown	X	20XX

Guard rail

Guard rail rusting and dented

Deterioration at post

Paint finish deterioration at landscape line

Wood Pier

The Sea Scout Facility includes 250 square feet wood pier and 25 linear feet of hand rails. The wood pier is in satisfactory condition. Port should conduct interim repairs from the operating budget on an as needed basis. Port should anticipate a useful live of up to 20 years for the wood decking and railings, and anticipate their replacement by 20XX. The piles are considered long-lived.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Wooden Plank (SF)	250	7	Unknown	X	20XX
Railing Post (LF)	25	7	Unknown	X	20XX

Wooden Pier east elevation

Wooden Pier west elevation

Sea Scout Buildings	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	CRDM 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Sea Scout 1 (Unknown)																			
Envelope Components																			
Gutters and Downspouts	1	LS	$1,100	$1,100	$3,000	20	0	2012	$1,000										
Roof, Aspahlt Shingle	1	LS	$7,700	$7,700	$21,000	20	0	2012	$8,000										
Siding, Masonry + Wood, Initial	1	LS	$11,500	$11,500	$12,000	15	0	2012	$12,000										
Siding, Masonry + Wood, Subsequent	1	LS	$5,000	$5,000	$7,000	15	15	2027											
Windows and Doors	1	LS	$16,500	$16,500	$18,000	35	4	2016					$18,000						
Interior Components																			
Renovation	1	LS	$7,000	$7,000	$20,000	15	5	2017						$8,000					
Light Fixtures, Replacement	18	EA	$250	$4,500	$5,000	35	5	2017						$5,000					
Sea Scout 2 (Unknown)																			
Envelope Components																			
Door, Garage	1	EA	$7,000	$7,000	$17,000	15	2	2014			$7,000								
Roof, Metal	20	SQ	$1,050	$21,000	$22,000	35	2	2014			$22,000								
Siding, Metal	2,750	SF	$14.50	$39,875	$58,000	40	14	2026											
Site Features																			
Asphalt Pavement, Replacement	820	SY	$36.00	$29,520	$36,000	20	7	2019								$36,000			
Crane, Boat	1	EA	$5,000.00	$5,000	$7,000	35	10	2022											$7,000
Electrical Upgrades (incl. bldgs)	1	LS	$89,000	$89,000	$89,000	40	0	2012	$89,000										
Fence, Chain Link (incl. gates)	815	LF	$54	$44,010	$67,000	35	16	2028											
Guard Rail	190	LF	$45	$8,550	$13,000	40	16	2028											
Pier, Wood	250	SF	$40	$10,000	$14,000	25	12	2024											
			Total 20 Year Cost		$409,000			**Annual Cost**	$110,000	$0	$29,000	$0	$18,000	$13,000	$0	$36,000	$0	$0	$7,000

Comments

a) UL is Useful Life and RUL is Remaining Useful Life
b) The annual building materials inflation rate estimate is estimated at 2.70%
c) CRV is the Current Replacement Value
d) CRDM is Capital Repair/Deferred Maintenance
e) Sea Scout buildings have no reported CRV

Sea Scout 1
CRV Unknown
FCI

Sea Scout 2
CRV Unknown
FCI

Sea Scout Buildings	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Sea Scout 1 (Unknown)																		
Envelope Components																		
Gutters and Downspouts	1	LS	$1,100	$1,100	$3,000	20	0	2012										$2,000
Roof, Aspahlt Shingle	1	LS	$7,700	$7,700	$21,000	20	0	2012										$13,000
Siding, Masonry + Wood, Initial	1	LS	$11,500	$11,500	$12,000	15	0	2012										
Siding, Masonry + Wood, Subsequent	1	LS	$5,000	$5,000	$7,000	15	15	2027					$7,000					
Windows and Doors	1	LS	$16,500	$16,500	$18,000	35	4	2016										
Interior Components																		
Renovation	1	LS	$7,000	$7,000	$20,000	15	5	2017										$12,000
Light Fixtures, Replacement	18	EA	$250	$4,500	$5,000	35	5	2017										
Sea Scout 2 (Unknown)																		
Envelope Components																		
Door, Garage	1	EA	$7,000	$7,000	$17,000	15	2	2014				$10,000						
Roof, Metal	20	SQ	$1,050	$21,000	$22,000	35	2	2014										
Siding, Metal	2,750	SF	$14.50	$39,875	$58,000	40	14	2026				$58,000						
Site Features																		
Asphalt Pavement, Replacement	820	SY	$36.00	$29,520	$36,000	20	7	2019										
Crane, Boat	1	EA	$5,000.00	$5,000	$7,000	35	10	2022										
Electrical Upgrades (incl. bldgs)	1	LS	$89,000	$89,000	$89,000	40	0	2012										
Fence, Chain Link (incl. gates)	815	LF	$54	$44,010	$67,000	35	16	2028						$67,000				
Guard Rail	190	LF	$45	$8,550	$13,000	40	16	2028						$13,000				
Pier, Wood	250	SF	$40	$10,000	$14,000	25	12	2024		$14,000								
			Total 20 Year Cost		$409,000			**Annual Cost**	$0	$14,000	$0	$68,000	$7,000	$80,000	$0	$0	$0	$27,000

Comments
a) UL is Useful Life and RUL is Remaining Useful Life
b) The annual building materials inflation rate estimate is estimated at 2.70%
c) CRV is the Current Replacement Value
d) CRDM is Capital Repair/Deferred Maintenance
e) Sea Scout buildings have no reported CRV

Sea Scout 1
CRV
FCI

Sea Scout 2
CRV
FCI

XXX/2012

FACILITIES CONDITION ASSESSMENT PROGRAM

SEAMEN'S CLUB BUILDING

Facilities Development | Management

Contents

Executive Summary

Property Analysis Summary

Seamen's Club Building is located at the south end portion of the Port of Milwaukee. It is located at 1200 S. Harbor Drive at the corner of E. Jones St and S. Harbor Drive. The building was renovated extensively in 2006 and had some additions in the past. The building was constructed in 1939 and comprises of a total of 1,685 square feet.

Seaman's Club Building Information				
Building Name	Year Built/Age	Square Feet	CRV	FCI/Rating
Sean's Seamen's Club	1939/73	1,685	$ 338,000	
Als Insurance record	1950/62	1,685	$ 72,778	

Near term projects are those that are anticipated with the first six years of the funding analysis. These projects are defined by priority. High priority projects are those that require capital expenditures for remediation within two years. Medium priority projects are those that require capital expenditures from three- to six-years. Low priority projects are those that require capital expenditures beyond six years. Subsequent facility inspections will adjust the anticipated priorities. The following table summarizes the high and medium priority projects at Coil and Bradford Buildings.

Priority	Year	Near Term Projects
High	**1**	
	2	
Medium	**3**	
	4	
	5	
	6	

Annual expenditures for the Coil and Bradford Buildings vary from year– to –year as indicated from the graph below.

ADD ANNUAL EXPENDITURE GRAPH HERE

The most significant category of Coil and Bradford Buildings expenditures pertains to **building envelope** repairs as shown below.

ADD PIE CHART HERE

Component Inventory

The property components at Coil and Bradford Buildings are categorized as follows:

Seamen's Club Building is Capital Expenditures

Building Envelope Components

- Doors, Service, Phased
- Roofs, EPDM
- Siding, Masonry
- Windows

Building Interior Components

- Office Renovations
- Rest Rooms, Renovation

Electrical Components

- Electrical, Upgrades
- HVAC, Split System

Site Features

- Asphalt Pavement, Phased
- Landscape Improvements

O+M Responsibility

- Awning, Entrance
- Gutters and Downspouts
- Landscape Improvements
- Light Fixtures
- Paint Finishes
    - Exterior Components
    - Touch-Up
- Wood Panels at Windows
- Other Items Normally Funded by O+M

Long Lived

- Foundation
- Structural Frame

Others Responsibility

Maintenance Items

The facility inspection observed deficiencies that require maintenance repairs/attention. Timely remediation will minimize the cost for remediation. Whereas, deferred maintenance may result in exacerbation of deterioration and more costly future repairs.

Building Envelope

1) Roof Repairs

Site Features

2) Asphalt Pavement

i. Crack repair, patch , and seal coat

Seamen's Club Building

Envelope Components

Doors, Service

Seamen's Club Building exterior includes six metal doors exterior doors. The inspection reveals that garage/utility room doors are in fair/poor condition. The remaining doors are in satisfactory condition. The useful life of doors is up to 35 years. Based on the condition the Port of Milwaukee should anticipate phased replacement/refurbishment of two metal doors by 20XX and again by 20XX.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Service Doors, Metal	6	5	Unknown	0	20XX

West mechanical room doors

East door

Roofs, EPDM

Seamen's Club Building comprises of three separate EPDM roof sections. The roofs are inspected and maintained by a third party. The last inspection occurred in January 2012. At the time all the roofs were in fair condition and needed minor repairs.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
#1 – Office Building	1,460	5	Unknown	X	20XX
#2 – East office addition	392	5	Unknown	X	20XX
#3 – Mechanical room	500	5	Unknown	X	20XX

Flashing sealants for R-1 is cracking

Ponding water R-1, drain stopped up

Tree debris on R-3 and gutters clogged

Counter flashing R-2 rusted

Siding, Masonry Brick

Seamen's Club Building exterior comprises 2,950 square feet of brick masonry and 182 square feet of concrete masonry unit (CMU). The brick masonry is in good to fair overall condition. Visual onsite inspection of the brick masonry identified multiple locations of cracked and missing mortar. Additionally, the inspection revealed cohesion/adhesion caulk failure along the window frames. For budgetary purposes, the City of Milwaukee bases its cost estimate for masonry and wood work on the following:

For budgetary purposes, the Port of Milwaukee should anticipate the following scope of work:

- Façade inspection
- Brick/CMU replacement of up to 60 square feet
- Repointing of up to 185 square feet
- Sealant replacement of up to 475 linear feet

The actual scope of work will be verified by design inspection.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Brick Masonry and CMU	2,130	6	62	0	2012
Wood Siding/Panels (Boarded Windows)	300	6	62	0	2012
Caulk (LF)	470	5	62	0	2012
Metal Lintels (LF)	100	8	62	0	2012

Boarded Brick windows north elevation

Sealant (not mortar) repair at masonry

Cracked brick and sealant (not mortar) repair

Sealant (not mortar) repair

East elevation 2" hole in CMU

Windows

North American Salt Company includes 380 square feet of windows. Typical useful life expectancy for windows is up to 35 years. The inspection revealed that the west elevation windows appeared original to building construction and exhibited paint finish deterioration at the frames. The east elevation windows appeared to have been replaced, though the date/time of replacement is unknown. The north elevation windows are boarded and not included in the capital budget.

Based on varied conditions, the Port of Milwaukee should anticipate phased window replacement beginning by 20XX.

Inventory (SF)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Windows, Functional	330	5	57	XX	20XX
Windows, Boarded	300	N/A	N/A	XX	20XX

Paint finish deterioration at wood frame

Paint finish deterioration at wood frame

East elevation windows – replaced (not original)

Interior Components

Windows

Seamen's Club Building comprises interior finishes including acoustic tile ceiling, painted walls and ceilings, and light fixtures. The useful life of interior renovations is up to 20 years.

The inspection revealed that the interior spaces were in satisfactory condition. Port representatives reported that the previous occupant conducted a recent interior renovation. The inspection reveals normal wear at the interior finishes.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Acoustic Tile Ceiling (SF)	1,350	6	Unknown	X	20XX
Wood Panel (SF)	3,600	6	Unknown	X	20XX
Painted Walls/Ceiling (SF)	725	6	Unknown	X	20XX
Vinyl Floor Tile (SF)	1,430	6	Unknown	X	20XX
Counters (LF)	14	6	Unknown	X	20XX
Cabinets (LF)	17	6	Unknown	X	20XX
Sink	1	6	Unknown	X	20XX
Light Fixtures, Fluorescent	19	6	Unknown	X	20XX
Light Fixtures, Ceiling	2	6	Unknown	X	20XX
Light Fixtures, Recessed	5	6	Unknown	X	20XX

Office area

Acoustic ceiling tiles loose

Vinyl floor tile

Ceiling water damage

Kitchen and lunch room

Office with abandon radiator

Rest Rooms, Renovations

Seaman's Club comprises of five rest rooms. The rest rooms are in satisfactory condition and have a useful life of up to 35 years. The Port of Milwaukee should coordinate rest room renovation by 20XX, in conjunction with other interior updates.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Paint Walls/Ceilings (SF)	240	5	Unknown	X	20XX
Wood Panel Walls (SF)	790	5	Unknown	X	20XX
Vinyl Tile Floor (SF)	95	5	Unknown	X	20XX
Light Fixtures	7	5	Unknown	X	20XX
Toilet	4	5	Unknown	X	20XX
Sink	4	5	Unknown	X	20XX
Lockers	3	5	Unknown	X	20XX
Shower	1	5	Unknown	X	20XX
Mirrors	4	5	Unknown	X	20XX

Rest room

Shower stall

Electrical Components

North American Salt Company electrical components include secondary and branch circuit distribution. The components are at varied ages and conditions. Based on condition, the Port of Milwaukee should anticipate phased service upgrades/replacement of electrical components.

Phase 1 upgrades are scheduled for electrical components that are in condition 4 and below (shaded red). Phase 2 upgrades are scheduled for electrical components that are in condition 5-6 (shaded blue).The remaining components, rated 7 and above (shaded green) are long-lived. The following table summarizes the initial phases and conditions. Actual scope of work may vary at time of electrical upgrades.

Part / Equipment Name	Year Installed	Manufacturer/Material	Capacity / Area / Size	Condition
Electrical - Secondary				
Utility Service-WE Energies	1960	Transformer	400Amp 120/240Vac 3wire	9
Utility Revenue Meter	2004	Schlumberger	200Amp 120/240 Single Phase	9
200Amp Incoming Service Panel	2006	Square D	200Amp 120/240 Single Phase 42-ckt.	8
100Amp Distribution Panel	1990	Square D	100Amp MLO 120/240Vac, 1 phase	5
Misc. Field Mtd. Disconnects	1960's	Square D	40,60,80 Amp Fused	N (Abandoned)
Electrical - Distribution				
100Amp Distribution Panel	1990	Square D	100Amp MLO 120/240Vac, 1 phase	5
Exterior Block Heater Recept.	1990's	Electrolux	GFI 120Vac 20Amp	5

Abandoned disconnects

Main service panel

Weathered exterior conduit

Engine block heater

Split System

Seamen's Club comprises one split system. The split system comprises of an internal forced air furnace and an external condensing unit. The useful life of split systems is up to 20 years. The Port of Milwaukee anticipates their replacement by 20XX. Interim partial replacements and repairs are funded by O + M.

Inventory (EA)		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Split System					
Furnace (MBH)	Unknown	6	Unknown	X	20XX
Condenser (Tons)	3.5	6	Unknown	X	20XX

Interior forced air furnace

Air Conditioner unit

Site Features

Asphalt Pavement

Seamen's Club property contains 750 square yards of asphalt pavement throughout the property. The inspection revealed that the southwest driveway pavement exhibited failed pavement, an adjacent overlay, transverse/longitudinal cracking. The walkway was in good condition. Additionally, the driveway apron was recently replaced and in good overall condition. Port of Milwaukee should anticipate phased asphalt pavement by 20XX and again by 20XX.

Inventory		Condition Rating	Age (Years)	RUL (Years)	1st Year of Capital Expenditure
Asphalt Pavement (SY)	750	5	Unknown	X	20XX

Entrance Asphalt driveway overview

Serious erosion and uneven asphalt

East elevation cracking asphalt pavement

Front entrance asphalt cracking

Recently replaced driveway apron

Seaman's Club	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	CRDM 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Envelope Components																		
Doors, Service, Phased	2	EA	$2,500	$5,000	$14,000	20	2	2014			$5,000							
Roof, 1, EPDM	15	SQ	$2,200	$33,000	$96,000	20	7	2019								$40,000		
Roof, 2, EPDM	4	SQ	$2,200	$8,800	$26,000	20	7	2019								$11,000		
Roof, 3, EPDM	5	SQ	$2,200	$11,000	$32,000	20	7	2019								$13,000		
Siding, Masonry	1	LS	$12,000	$12,000	$31,000	15	4	2016					$13,000					
Windows, Phased Replacement	1	LS	$16,500	$16,500	$43,000	35	4	2016					$18,000					
Interior Components																		
Renovation, Office	1	LS	$46,000	$46,000	$62,000	20	11	2023										
Renovation, Rest Rooms	1	LS	$18,000	$18,000	$24,000	35	11	2023										
Control Components																		
Electrical, Phase 2	1	LS	$29,000	$29,000	$39,000	40	11	2023										
HVAC, Split System	1	LS	$13,000	$13,000	$17,000	20	11	2023										
Site Features																		
Asphalt Pavement, Replacement	375	SY	$36.00	$13,500	$35,000	20	5	2017						$15,000				
			Total 20 Year Cost		$405,000			**Annual Cost**	$0	$0	$5,000	$0	$31,000	$15,000	$0	$64,000	$0	$0
								CRV	$72,769	$74,734	$76,752	$78,824	$80,952	$83,138	$85,383	$87,688	$90,055	$92,487
								FCI	0.00	0.00	0.07	0.00	0.38	0.00	0.00	0.73	0.00	0.00

Comments

a) UL is Useful Life and RUL is Remaining Useful Life

b) The annual building materials inflation rate estimate is estimated at 2.70%

c) CRV is the Current Replacement Value

d) CRDM is Capital Repair/Deferred Maintenance

Seaman's Club	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Envelope Components																		
Doors, Service, Phased	2	EA	$2,500	$5,000	$14,000	20	2											$9,000
Roof, 1, EPDM	15	SQ	$2,200	$33,000	$96,000	20	7											$56,000
Roof, 2, EPDM	4	SQ	$2,200	$8,800	$26,000	20	7											$15,000
Roof, 3, EPDM	5	SQ	$2,200	$11,000	$32,000	20	7											$19,000
Siding, Masonry	1	LS	$12,000	$12,000	$31,000	15	4						$18,000					
Windows, Phased Replacement	1	LS	$16,500	$16,500	$43,000	35	4						$25,000					
Interior Components																		
Renovation, Office	1	LS	$46,000	$46,000	$62,000	20	11		$62,000									
Renovation, Rest Rooms	1	LS	$18,000	$18,000	$24,000	35	11		$24,000									
Control Components																		
Electrical, Phase 2	1	LS	$29,000	$29,000	$39,000	40	11		$39,000									
HVAC, Split System	1	LS	$13,000	$13,000	$17,000	20	11		$17,000									
Site Features																		
Asphalt Pavement, Replacement	375	SY	$36.00	$13,500	$35,000	20	5					$20,000						
			Total 20 Year Cost		$405,000			$0	$142,000	$0	$0	$20,000	$43,000	$0	$0	$0	$0	$99,000
Comments																		
a) UL is Useful Life and RUL is Remaining Useful Life								$94,984	$97,549	$100,182	$102,887	$105,665	$108,518	$111,448	$114,457	$117,548	$120,722	$123,981
b) The annual building materials inflation rate estimate is estimated at			2.70%					0.00	1.46	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.80
c) CRV is the Current Replacement Value																		
d) CRDM is Capital Repair/Deferred Maintenance																		

Roads	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	CRDM 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Asphalt Roads																			
Car Ferry Drive, Partial Replacement	2,870	SY	$36.00	$103,320	$103,000	20	0	2012	$103,000										
Fire Lane, Phased Replacement	300	SY	$36.00	$34,167	$88,000	20	4	2016					$38,000						
Harbor Drive (South), Pavement Overlay	2,665	SY	$36.00	$95,940	$104,000	20	3	2015				$104,000							
Harbor Service Road, Pavement Overlay	4,881	SY	$36.00	$175,720	$255,000	20	14	2026											
Michigan Street, Pavement Overlay	1,470	SY	$36.00	$88,200	$115,000	20	10	2022											$115,000
Service Drive	1,853	SY	$36.00	$66,720	$67,000	20	0	2012	$67,000										
Terminal #1, Phased Replacement	7,316	SY	$36.00	$263,387	$1,016,000	20	2	2014			$278,000							$335,000	
Concrete Pavement																			
High-Wide Load Route, Partial	2,500	SF	$8.00	$20,000	$53,000	50	5	2017						$23,000					
Liquid Cargo Pier, Near Term Repairs	1	LS	$1,500,000	$1,500,000	$1,500,000	N/A	0	2012	$1,500,000										
Liquid Cargo Pier, Subsequent Rebuild	1	LS	$5,000,000	$5,000,000	$8,519,000	65	20	2032											
Terminal #1, Partial Replacement	6,000	SF	$8.00	$48,000	$186,000	50	2	2014			$51,000							$61,000	
			Total 20 Year Cost		$12,006,000			**Annual Cost**	$1,670,000	$0	$329,000	$104,000	$38,000	$23,000	$0	$0	$0	$396,000	$115,000

Comments

a) UL is Useful Life and RUL is Remaining Useful Life

b) The annual building materials inflation rate estimate is estimatec 2.70%

Roads	Quantity	Units	2012 Unit Cost	2012 Capital Cost	20 Year Total Cost	UL	RUL	First Year Funds Requested	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Asphalt Roads																		
Car Ferry Drive, Partial Replacement	2,870	SY	$36.00	$103,320	$103,000	20	0	2012										
Fire Lane, Phased Replacement	300	SY	$36.00	$34,167	$88,000	20	4	2016				$50,000						
Harbor Drive (South), Pavement Overlay	2,665	SY	$36.00	$95,940	$104,000	20	3	2015										
Harbor Service Road, Pavement Overlay	4,881	SY	$36.00	$175,720	$255,000	20	14	2026				$255,000						
Michigan Street, Pavement Overlay	1,470	SY	$36.00	$88,200	$115,000	20	10	2022										
Service Drive	1,853	SY	$36.00	$66,720	$67,000	20	0	2012										
Terminal #1, Phased Replacement	7,316	SY	$36.00	$263,387	$1,016,000	20	2	2014						$403,000				
Concrete Pavement																		
High-Wide Load Route, Partial	2,500	SF	$8.00	$20,000	$53,000	50	5	2017					$30,000					
Liquid Cargo Pier, Near Term Repairs	1	LS	$1,500,000	$1,500,000	$1,500,000	N/A	0	2012										
Liquid Cargo Pier, Subsequent Rebuild	1	LS	$5,000,000	$5,000,000	$8,519,000	65	20	2032										$8,519,000
Terminal #1, Partial Replacement	6,000	SF	$8.00	$48,000	$186,000	50	2	2014						$74,000				
			Total 20 Year Cost		$12,006,000			**Annual Cost**	$0	$0	$0	$305,000	$30,000	$477,000	$0	$0	$0	$8,519,000

Comments
a) UL is Useful Life and RUL is Remaining Useful Life
b) The annual building materials inflation rate estimate is estimatec 2.70%