

Facilities Condition Assessment Program



2nd and Plankinton Parking Garage

May 2011



Facilities Condition Assessment Program—2nd and Plankinton

Introduction

2nd and Plankinton parking structure is located at 724 North 2nd Street. The parking structure is bounded by commercial property to the south, Plankinton Street to the east and 2nd Street to the west. It was constructed in 1960.

The parking structure contains eight parking levels made accessible by entrances/exits at Plankinton and 2nd Streets. 2nd and Plankinton parking structure comprises approximately 204,000 square feet of floor area and 473 parking spaces.

The overall condition of the 2nd and Plankinton parking structure is good, as indicated by the Facility Condition Index rating of 0.00. Fiscal Year 2012 pertains to the most significant near term year of repairs and relates to membrane/sealer application and elevated concrete repairs..

Procedures

The Facilities Condition Assessment Program (FCAP) is a 20 year-forecast of the property and analysis of the capital improvement expenditures. It involves two aspects: the physical analysis and financial analysis. The physical analysis includes an onsite inventory and condition assessment of components that will require capital improvement expenditures within the scope of the 20 year study. The financial analysis includes project scheduling/coordination and cost estimation of these projects.

FCAP includes information about the property components and the project schedules. The report serves as a long-term strategic tool to position property fiduciaries to make decisions to best serve its owners.

Component Inventory

The information within the Facility Condition Assessment Program is derived from:

- On-site, visual, non-invasive inspections
- Review of consultant's reports
- Facilities Development and Management historic data

The components inventoried and scheduled for capital improvement within this report meet the following criteria:

- City of Milwaukee responsibility
- Limited Useful Life (UL) expectancy
- Predictable Remaining Useful Life (RUL) expectancy
- Greater than \$25,000 minimum threshold (some exceptions apply)
- Requirements by local codes

Categorization of Components

This report inventories the physical property components located at the facility. The inventoried property components are organized into one of the following categories:



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- City of Milwaukee Responsibility
- O+M Responsibility
- Long Lived
- Others

City of Milwaukee Responsibility pertains to components that are funded by the City of Milwaukee capital expenditures. These components are the primary focus within this report and the coordinated capital budget.

O+M Responsibility pertains to those components that require maintenance or replacement less than the minimum capital threshold of \$25,000. These components are usually repaired or replaced from O+M funds.

Long Lived pertains to components that are funded through the City of Milwaukee capital program. However, these expenditures are projected beyond the 25 year scope of capital budget.

Others pertains to components that are repaired/replaced/maintained by an entity other than City of Milwaukee.

Component Inventory

The property components at 2nd and Plankinton are categorized as follows:

City of Milwaukee Responsibility

Structural Components

- Concrete, Elevated, Membrane Application
- Concrete, Elevated, Sealer Application
- Concrete, Elevated, Surface Repairs
- Concrete, On-Grade
- Expansion Joints
- Paint Finish Application

Services Components

- Electrical, Secondary Distribution
- Electrical, Branch Circuits and Panels
- Elevators, Traction, Hoist and Controls
- Light Fixtures, Replacement
- Light Poles and Fixtures, 8th Floor
- Operators and Pay Stations
- Security System

Finishes Components

- Doors, Replacement



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- EIFS, Paint Finish and Repairs
- Lobby/Offices, Upgrade
- Roofs, Replacement

O+M Responsibility

- Routine Diagnostics/Maintenance
- HVAC Units

Report Information

The written report includes a combination of information about the City of Milwaukee Responsibility components, including:

- Component Inventory
- Condition Assessment
- Photo-documentation

This information is intended to serve as a summary from the aggregation of in-house inspections, consultants reports, historic data, and the capital budget. In addition, projects funded for ADA compliance are included within the anticipated costs of capital projects.

Capital Budget

The capital budget for the property is included on two spreadsheets. The first spreadsheet contains the anticipated capital projects for years 2011 through 2023. The second spreadsheet contains the anticipated capital projects for years 2024 through 2036. Information on the spreadsheets includes:

- Component Name
- Quantity
- Units
- 2011 Unit Cost
- 2011 Replacement Cost
- Useful Life (UL)
- Remaining Useful Life (RUL)
- First Year Funds Requested

Component Name pertains to the element which is projected for capital improvement.

Quantity includes the measured amount of each component at the property.

Units pertains to the measurement used to determine quantity. The units within the report are as follows:

- LF = Linear Feet
- SF = Square Feet
- EA = Each
- LS = Lump Sum



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2011 Unit Cost pertains to the estimated cost per unit measurement for capital improvement. These costs are derived from RS Means Cost Works, Marshall & Swift/Boeckh, AME, Inc., historic data, and other resources.

2011 Replacement Cost pertains to the estimated cost of the capital improvement project. It is derived by multiplying the *Quantity* by *2011 Unit Cost*.

Useful Life (UL) pertains to the time frame in years wherein a component is anticipated to remain functional provided it receive proper maintenance. UL is also referred to as Service Life.

Remaining Useful Life (RUL) pertains to the estimated service life remaining for any given component. It coincides with the anticipated year of the capital expenditure.

First Year Funds Requested pertains to the year in which the capital expenditure is anticipated.

Deferred Capital pertains to projects that have been identified for capital repairs but have yet to be completed. The aggregated summation of deferred maintenance projects corresponds to the FCI.

CRV Current Replacement Value is the insurance estimate for reconstruction of the facility in today's dollars.

FCI Facilities Condition Index is the relationship between the aggregated summation of deferred capital projects divided by the Current Replacement Value of the facility. This proportion provides a measure to analyze the condition of the property, compare with other properties, and cross reference with City of Milwaukee guidelines. The City of Milwaukee guidelines are as follows:

Condition	FCI Rating
Good	0.0-0.099
Fair	0.10-0.20
Poor	>0.20

Limitations of Inspection

The inspection conducted by City of Milwaukee Facilities Development and Management Section and its representatives is limited to those components that are observed and identified by mere visual observation. Inspections conducted by the City of Milwaukee Facilities Development and Management Section does not include:

- (a) Any probing, boring, excavation, or other invasive means of property inspection



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- (b) Testing for or identification of any hazardous materials in any form
- (c) Identification of construction, structural, design, or other defects that may violate local, state, international, or other building codes and/or regulations, or any kind
- (d) Identification of any defects that are not readily apparent by mere visual observation including, but not limited to structural defects, leaking pipes, foundational damage, and electrical wiring hazards or defects.



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Concrete, Elevated

2nd and Plankinton comprises 153,000 square feet of elevated concrete parking and an additional 24,000 square feet of elevated helical exit ramps. The concrete parking contains a membrane, whereas the concrete helical ramp contains sealer application.

The east stair well at Floors 1 and 2 contains damaged concrete

The waterproof membrane and sealer protects solvents, liquids, etc. from penetrating into the concrete, thereby increasing the longevity of the elevated concrete structure and stairs.

The useful life of the membrane is up to 15 years and the useful life of the sealer application is up to six years. Parking should budget for membrane replacement by 2012 and every 15 years thereafter. Sealer application should be funded by 2012 and every six years thereafter.

Concrete surface repairs should be conducted in conjunction with membrane and sealer application.

Photographs



Loose membrane at 3rd floor

Concrete On-Grade

2nd and Plankinton comprises approximately 21,000 square feet of on-grade concrete at the lower level. The concrete is in fair condition with cracks were observed.

Parking should budget for partial replacement of on-grade concrete by 2020.

Expansion Joints, Replacement

2nd and Plankinton contains approximately 360 LF of expansion joints between the parking ramp and the helical exit ramp. The useful life of an expansion joints is 15 years. Parking should budget for partial expansion joint replacements by 2012 and every six years there after. This work should be coordinated with membrane/sealer application when possible.

Paint Finish Application

The ceilings and wall surfaces within the parking ramp comprise approximately 197,000 square feet. The metal louvers at the helical ramp comprise another 15,000 square feet of paint finish surfaces at the metal louvers.

The paint finish is in fair overall condition. The useful life of interior paint finish applications is up to 15 years. Parking should plan the next paint finish application by 2015 and subsequent paint finish applications every 15 years thereafter.

Concrete surface repairs at the walls and ceilings should be coordinated with paint finish applications.

Photographs



Paint finish with rust

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Electrical

2nd and Plankinton comprises two levels of electrical distribution: Secondary and Branch Circuits/Panels. The condition of these components is reported as good/fair.

The useful lives for the electrical systems is as follows: Secondary = 45 years, Branch Circuits/Panels = 25. The useful life is dependent upon function and environment.

Based on condition, parking should anticipate replacement of the Secondary distributions by 2031, and Branch Circuits/Panels 2025.

Elevators, Traction

Two elevators serve 2nd and Plankinton parking structure. The useful life of traction elevators hoists and controls is up to 45 years. Parking should anticipate its upgrade by 2031.

Photographs



Elevator controls

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Light Fixtures, Replacement

2nd and Plankinton contains the following light fixture count:

Location	Quantity
Garage	224
Helix	84
Stairwell East	21
Stairwell West	16

The light fixtures at the parking ramp were recently replaced.

The useful life of light fixtures is up to 25 years. Parking should fund light fixture replacement in the helix/stairwells by 2018. Subsequent light fixture replacement at the parking ramp should be conducted by 2031.

Light Poles and Fixtures

2nd and Plankinton contains 17 light poles and fixtures at the 8th level. The useful life of light fixtures is up to 35 years. Based on condition, Parking should fund light fixture replacement by 2023.

Photographs



Light poles and fixtures at the eight floor

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Operators and Pay Stations

2nd and Plankinton contains:

Item	Quantity
Entrance Ticket Operator	2
Exit Ticket Operator	3
Gate Operators	4
Pay Station	1

The useful life of these components and operating systems is up to 12 years. Parking should anticipate its replacement by 2019 and 2031. Interim repairs/replacements and upgrade to individual components should be funded by O+M.

Security System, Cameras Only

2nd and Plankinton contains eight recording cameras and a video monitoring system. The useful life of security equipment is up to 12 years. Parking should plan for security camera replacement by 2016.

Photographs



Entrance ticket operator and gate arm

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Doors, Replacement

2nd and Plankinton comprises 24 steel doors, 2 glass/metal doors, and 2 overhead doors. The useful life of metal exterior doors is up to 35 years. Based on the varied conditions, Parking should anticipated phased replacement of 14 doors by 2019 and again by 2029.

Photographs



Typical door

EIFS, Paint Finish and Repairs

The north façade at 2nd and Plankinton comprises approximately 13,000 square feet of EIFS finishing. The useful life of EIFS paint finishes is up to 10 years. Based on condition, Parking should conduct EIFS paint finish application by 2015 and every ten years thereafter.

Photographs



EIFS wall at north elevation

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Lobby/Offices, Upgrades

2nd and Plankinton comprises a lobby at 2nd Street, a rest room, and a security office. Interior renovations should be conducted every 30 years. Parking should budget for the next interior renovation by 2023.

Roofs, Replacement

2nd and Plankinton contains three roof sections: one at the helical ramp, and one each atop the elevator penthouse roofs. The roof areas comprise 60 squares. The useful life of the roof is up to 20 years. Parking should budget replacement of the roofs by 2017.

Photographs



Roof at helical ramps

**2nd and Plankinton
Parking Structure**

	Quantity	Units	2011 Unit Cost	2011 Captial Cost	UL	RUL	20 Year Total Cost	First Year Funds Requested	Deferred Capital	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Structural Components																			
Parking Ramp																			
Concrete, Elevated, Membrane Application	1	LS	\$520,000	\$520,000	15	1	\$1,330,000	2012	\$0		\$534,000								
Concrete, Elevated, Surface Repairs	1	LS	\$120,000	\$120,000	15	1	\$307,000	2012	\$0		\$123,000								
Concrete, On-Grade Repairs	1	LS	\$20,000	\$20,000	90+	9	\$25,000	2020	\$0										\$25,000
Paint Finish Application	1	LS	\$475,000	\$475,000	15	4	\$1,316,000	2015	\$0					\$528,000					
Exit Ramp																			
Concrete, Elevated, Surface Repairs	1	LS	\$160,000	\$160,000	15	1	\$409,000	2012	\$0		\$164,000								
Concrete, Elevated, Sealer Application	1	LS	\$21,000	\$21,000	6	1	\$112,000	2012	\$0		\$22,000						\$25,000		
Expansion Joints, Replacement	1	LS	\$23,000	\$23,000	15	1	\$123,000	2012	\$0		\$24,000						\$28,000		
Services Components																			
Electrical, Secondary Distribution	1	LS	\$110,000	\$110,000	45	20	\$187,000	2031	\$0										
Electrical, Branch Circuits and Panels	1	LS	\$85,000	\$85,000	25	14	\$123,000	2025	\$0										
Elevators, Traction, Hoist and Controls	2	EA	\$190,000	\$380,000	45	20	\$647,000	2031	\$0										
Light Fixtures, Replacement, Parking Ramp	224	EA	\$260	\$58,240	25	20	\$99,000	2031	\$0										
Light Fixtures, Replacement, Helix/Stairwells	121	EA	\$260	\$31,460	25	7	\$92,000	2018	\$0								\$38,000		
Light Poles and Fixtures, 8th Floor	17	EA	\$3,500	\$59,500	35	12	\$82,000	2023	\$0										
Operators and Pay Stations	1	EA	\$190,000	\$190,000	12	8	\$235,000	2019	\$0									\$235,000	
Security System	1	EA	\$32,000	\$32,000	12	5	\$87,000	2016	\$0					\$37,000					
Finishes Components																			
Doors, Replacement, Phased	14	EA	\$2,300	\$32,200	35	8	\$92,000	2019	\$0									\$40,000	
EIFS, Paint Finish and Repairs	1	LS	\$83,000	\$83,000	10	10	\$108,000	2021	\$0										
Lobby/Offices, Upgrades	1	LS	\$20,000	\$20,000	30	11	\$61,000	2022	\$0										
Roofs, Replacement	60	SQ	\$1,200	\$72,000	20	6	\$84,000	2017	\$0							\$84,000			
Total 20 Year Cost							\$5,519,000	Total Annual Cost		\$0	\$867,000	\$0	\$0	\$528,000	\$37,000	\$84,000	\$91,000	\$275,000	\$25,000
Notes									CRV	\$9,199,391	\$9,447,775	\$9,702,864	\$9,964,842	\$10,233,893	\$10,510,208	\$10,793,983	\$11,085,421	\$11,384,727	\$11,692,115
									FCI	0.00									
1) FY is Fiscal Year. FY is the calendar year.																			
2) UL is Useful Life and RUL is Remaining Useful Life																			
3) The annual building materials inflation rate estimate is estimated at			2.70%																
4) Current Replacment Value (CRV) growth rate is estimated at			2.70%																

2nd and Plankinton Parking Structure		Quantity	Units	2011 Unit Cost	2011 Captial Cost	UL	RUL	20 Year Total Cost	First Year Funds Requested	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Structural Components																				
Parking Ramp																				
Concrete, Elevated, Membrane Application		1	LS	\$520,000	\$520,000	15	1	\$1,330,000	2012							\$796,000				
Concrete, Elevated, Surface Repairs		1	LS	\$120,000	\$120,000	15	1	\$307,000	2012							\$184,000				
Concrete, On-Grade Repairs		1	LS	\$20,000	\$20,000	90+	9	\$25,000	2020											
Paint Finish Application		1	LS	\$475,000	\$475,000	15	4	\$1,316,000	2015										\$788,000	
Exit Ramp																				
Concrete, Elevated, Surface Repairs		1	LS	\$160,000	\$160,000	15	1	\$409,000	2012							\$245,000				
Concrete, Elevated, Sealer Application		1	LS	\$21,000	\$21,000	6	1	\$112,000	2012				\$30,000						\$35,000	
Expansion Joints, Replacement		1	LS	\$23,000	\$23,000	15	1	\$123,000	2012				\$33,000						\$38,000	
Services Components																				
Electrical, Secondary Distribution		1	LS	\$110,000	\$110,000	45	20	\$187,000	2031											\$187,000
Electrical, Branch Circuits and Panels		1	LS	\$85,000	\$85,000	25	14	\$123,000	2025					\$123,000						
Elevators, Traction, Hoist and Controls		2	EA	\$190,000	\$380,000	45	20	\$647,000	2031											\$647,000
Light Fixtures, Replacement, Parking Ramp		224	EA	\$260	\$58,240	25	20	\$99,000	2031											\$99,000
Light Fixtures, Replacement, Helix/Stairwells		121	EA	\$260	\$31,460	25	7	\$92,000	2018											\$54,000
Light Poles and Fixtures, 8th Floor		17	EA	\$3,500	\$59,500	35	12	\$82,000	2023			\$82,000								
Operators and Pay Stations		1	EA	\$190,000	\$190,000	12	8	\$235,000	2019											
Security System		1	EA	\$32,000	\$32,000	12	5	\$87,000	2016							\$50,000				
Finishes Components																				
Doors, Replacement, Phased		14	EA	\$2,300	\$32,200	35	8	\$92,000	2019										\$52,000	
EIFS, Paint Finish and Repairs		1	LS	\$83,000	\$83,000	10	10	\$108,000	2021	\$108,000										
Lobby/Offices, Upgrades		1	LS	\$20,000	\$20,000	30	11	\$61,000	2022		\$27,000									\$34,000
Roofs, Replacement		60	SQ	\$1,200	\$72,000	20	6	\$84,000	2017											
Total 20 Year Cost								\$5,519,000	Total	\$108,000	\$27,000	\$82,000	\$63,000	\$123,000	\$0	\$1,225,000	\$50,000	\$52,000	\$861,000	\$1,021,000
Notes									CRV	\$12,007,802	\$12,332,013	\$12,664,977	\$13,006,931	\$13,358,118	\$13,718,788	\$14,089,195	\$14,469,603	\$14,860,282	\$15,261,510	\$15,673,571
									FCI											
1) FY is Fiscal Year. FY is the calendar year.																				
2) UL is Useful Life and RUL is Remaining Useful Life																				
3) The annual building materials inflation rate estimate is estimated at				2.70%																
4) Current Replacment Value (CRV) growth rate is estimated at				2.70%																

2nd and Plankinton 20 Year Projected Capital Needs

