Milwaukee Fire Department

Capital Improvement Committee Presentation

2014

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Support Bureau
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Facility Overview

41 Structures

35 Fire Stations + 1 Leased

Repair Facilities

Primary Repair Building

Butler Building

Cold Storage Building

Facility Overview (cont.)

Fire & EMS Training Facilities

Recruit Training Building (w/ Pump Testing Facility)

Fire Training Tower (Inspected in December of 2013)

Fire Education and Historical Museum

Facility Overview

- Average Age of Structures - 59 years
- Oldest Structure – Engine 1 - 142 years
- Newest Structure – Engine 35 - 16 years

Facility Overview

- Age Groupings
  - 0-25 years old - 4 Structures
  - 26-50 years old - 17 Structures
  - 51-75 years old – 9 Structures
  - 76-100 years old - 3 Structures
  - 100+ years old - 8 Structures

Facility Overview

- Fueling Sites
  - 21 Total Fill Sites
    - 18 Diesel
    - 6 Unleaded
    - 2 Dual
  - Comprehensive monitoring has begun
    - -Central monitoring (shop)
  - Managers Plus monitors

Facility Plan

- Facility Inventory – CIP Integration
  - Major Capital 20 YEAR Replacement Schedule
  - Paperless Integration for Facility Tracking – Manager Plus
- Energy Reduction Team
  - Updates
- Replacement Study
  - Collective asset replacement study ongoing

Facility Overview

Cool Choices

	Ave. Usage per Engine House (kWh)	Usage per Group (kWh)	Ave. Savings Rate from 2012 (%)	Net Ave. Savings Rate from 2012 (%)	Num. of Engine Houses
Participating	14,457	419,253	3.1%	6.6%	29
Non-participating	9,882	69,174	-3.5%		7
All Stations	13,542	487,512	1.8%	-	36

Comprehensive Asset Plan – 2015 Projects

House	2015 Projects		
Eng 1	Paint	Eng 24	Windows
Eng 2 & Admin	Overhead Door	Eng 25	
Eng 3	Roof replace/inspect, Tuckpoint, Overhead door	Eng 26	
Eng 4		Eng 27	HVAC
Eng 5		Eng 28	BI, TP
Eng 6		Eng 29	Water heater
Eng 7		Eng 30	Overhead Door
Eng 8	Water heater, Foundation inspection	Eng 31	Water heater
Eng 9	Paint	Eng 32	Water heater
Eng 10	A/c, Overhead door	Eng 33	
Eng 11		Eng 34	
Eng 12		Eng 35	Roof inspection, HVAC
Eng 13	Roof inspection	Eng 36	Roof inspection, HVAC, Tuckpoint
Eng 14		Eng 37	HVAC
Eng 16	Roof Inspection, Tuckpoint	Eng 38	HVAC, Water hater, Door inpection/replace
Eng 17	Water heater, Foundation inspection	Eng 39	
Eng 18		Burn Tower	
Eng 21	Water heater, Foundation inspection	Shop	
Eng 22	Water heater	Recruit Train	Paint
Eng 23		Ed Museum	

	Engine 1								
Address	784 N Broadway			Replacement Value:	$2,254,283				
Year Built	1872								
Building Area	14,095 SF			Equipment Housed	Depreciated Value	2012 Repair Costs			
Lot Area				Engine 1	$292,508.30	$4,244.70			
Roof Area	7,048 SF			Reserve Engine 40		2013 Auction			
Floors	2				$292,508.30	$4,244.70			
Foundation	Slab								
Exterior Wall									
	Surface	Brick							
	Frame	Steel							
Windows	Double hung, aluminum, thermo			Number of Personnel	Estimated Payroll		Energy Costs		
Floors	Vinyl, wood & Tile			4 Daily/12 Total	$808,259	Engine #1 closed	Electric	$5,133.59	
Electrical	Main Switch 400 Amp 3 Phase			* 1 Capt , 2Lt , 3 HEO,	6 FF, No Factor applied		Natural Gas	$9,399.43	
S & D Voltage	120/208			Station Repairs				$14,533.02	
Heating	Boiler, Steam			$3,886.51					
Cooling	Window Air system								
Ventalation	Roof/Wall Exhaust Fans								
Roof	Flat, Wood Decking & Frame, Ballasted								

	Year Installed	Quantity	Condition	Model/Make	Serial #	Life Of Component
Boiler	2002	2	Good	5007N/Burnham	64468945/64468942	20 yrs
Water Heater		1	Good	BT80/AO Smith	MA97 - 0620068 - 230	10 yrs
A/C Unit				Window Units		15 yrs
HVAC System	N/A					20 yrs
Concrete			Good			20 yrs
Landscape			N/A			N/A
Foundation			Good			N/A
Exterior Wall			Good			10 yr Insp.
Roof	2010	1	Excellent	EPDM/Membrane	Garland	20 yrs
Interior Walls/Paint			Fair			
Flooring			Fair			
Generator			N/A			50 yrs
Windows			Good			
Door(s)			Good			
Overhead Door(s)			Good			10 yr Insp.

Single Asset Plan

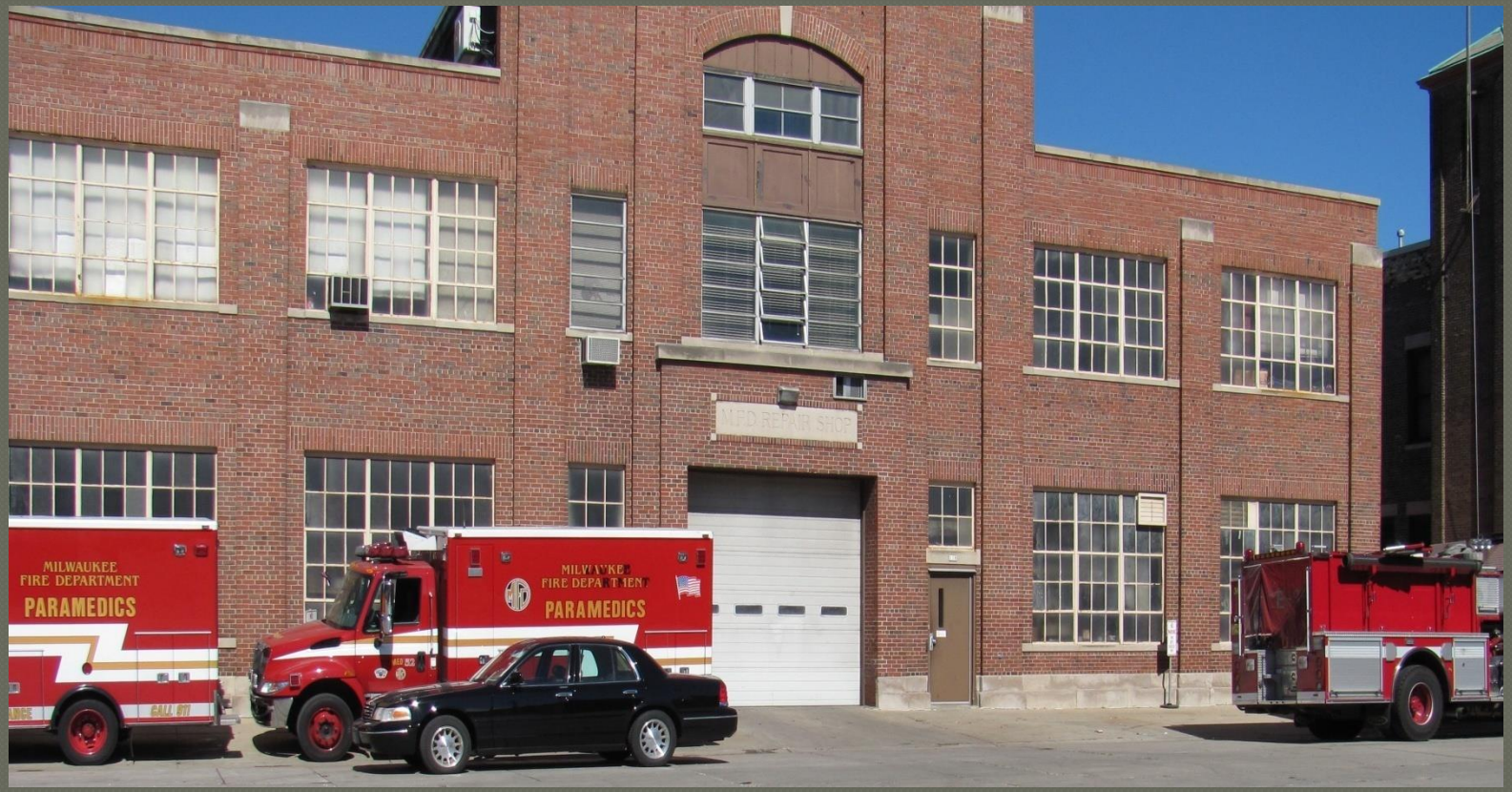
Generators

- Fixed Auxiliary Generators
  - 23 Placed and Working
    - -3 Installed in 2013 (completion spring 2014)
    - 3 installations planned for 2014
    - Remaining
      - 1,6,7,11,17,26,27,28,34 (total of 9)

Fire Major Capitol

Vehicle Type	2015	2016	2017	2018	2019	2020	6-Year CIP TOTAL
Multiplier	1.03	1.03	1.05	1.03	1.03	1.05	
ENGINES	545,000	562,000	591,000	609,000	628,000	660,000	
Purchasing Pattern (2-2-3)	2	3	2	2	3	2	
TOTAL	1,090,000	1,686,000	1,182,000	1,218,000	1,884,000	1,320,000	8,380,000
TRUCKS	792,000	816,000	857,000	883,000	910,000	956,000	
Purchasing Pattern (1-1-2)	2	1	1	2	1	1	
TOTAL	1,584,000	816,000	857,000	1,766,000	910,000	956,000	6,889,000
MED UNITS	212,000	219,000	230,000	237,000	245,000	258,000	
Purchasing Pattern (2-3-2-3)	2	3	2	3	2	3	
TOTAL	414,000	657,000	460,000	711,000	490,000	774,000	3,506,000
YEARLY TOTAL	3,088,000	3,159,000	2,499,000	3,695,000	3,284,000	3,050,000	18,775,000

Present Repair Shop



Present MFD Repair Shop

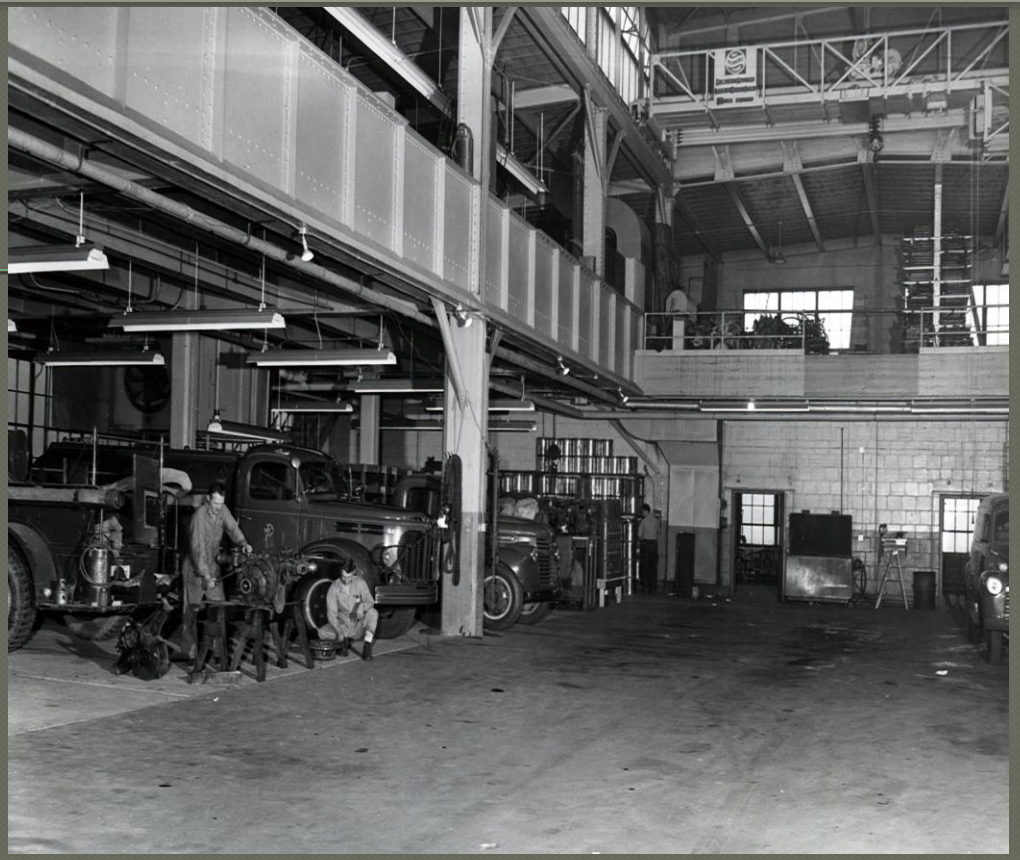
Built in 1929

Designed for apparatus of an earlier era

Limited workspace

Modern apparatus require tilting of the cab for most repairs (3-4 at one time)

Present MFD Repair Shop



Inefficient

- Workspace
- Change-over of Reserves
- HVAC
  - Most expensive facility
  - Extreme temperatures

MFD Proposed Repair Shop

- Built for today's apparatus
- Expedite changeover to reserve apparatus
- All repair bays allow for tilting of cabs
- Architect allowed the most efficient use of space under one roof

Proposal

- Complete replacement
  - Location to be determined
- Annex
  - Located at the rear of the present shop
  - 2 stages
    - 1st stage- construction of the Annex
    - 2nd stage – update of present shop

Remodeling - Administration

- Functional
- Technical
- Aesthetic