



# Property Condition Report

## Prepared For: Commercial Sample

**Property Address:**

sample  
SAMPLE Park MI 48101

**County:** Wright County PID# 102-076-001030

## Prepared By: Minnesota Building Inspections

Inspector: Victoria L. Morris  
2485 Canabury Dr. 302  
Little Canada, MN 55117

**Inspector Certification:** #NACHI12061310

**Date of Inspection:** 6/16/2017

**Report ID:** csampleparkmi



SW Facing



NW-Side, SW- Front



Side-NW, Front-SW



NW side (garages, and employee parking)



Back - NE



NE-Back

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Minnesota Building Inspections

2485 Canabury Dr. 302  
Little Canada, MN 55117

## Report Attachments

ATTENTION: This inspection report is incomplete without reading the information included herein at these links/attachments. Note If you received a printed version of this page and did not receive a copy of the report through the internet please contact your inspector for a printed copy of the attachments.

[Opinions of Probable Costs](#)

[HVAC Inventory](#)

[Floor Plans 1st, 2nd, 3rd \( approx. same 3-10\) floor](#)

[Wayne County Assessor](#)

# 1. EXECUTIVE SUMMARY

Items

## 1.0 GENERAL BUILDING DESCRIPTION

A Property Condition Assessment was conducted on June 16th, 2017 of the property located at SAMPLE the property is classified as commercial/industrial. The current business operation is known as SAMPLE Heights Retirement Community. The report for SAMPLE Heights is written in a narrative format according to ASTM E2018-08 Property Condition Report (PCR) base guidelines.

The Maple Heights building is a 10 story structure, plus an 11th floor penthouse dining area, and is 111,402 SF. It was built in 1971. In 2002, a lobby area (with atrium), covered walkway, and canopied building entrance driveway was added. The building components, maintenance standards, and timely upgrades were found to be fairly well managed. The forced-air furnaces, and condensers (and miscellaneous HVAC systems) could benefit from a better maintenance plan. The building was in normal condition for a 1971 building. Conditions that require attention are noted in the Executive Summary, and through-out the report.

SAMPLE Heights is an independent living facility with approximately 145 apartments, formal dining area, beauty salon, theater, and library. The independent living apartments are located on floors 3-10. There are studio's, one and two bedroom units available. Some rooms are fully furnished and rented for respite care. There are a total of 17 units that were vacant at the time of the walk-through survey. Fifteen of them were viewed. The condition of the rooms were good. They were in various stages of transition. Most were in the early stage of turnover , or recently vacated.

SAMPLE Heights offers third party managed, assisted living services. The nurses station, and assisted living rooms are located on the entire 2nd floor. The second floor had fairly poor housekeeping standards, but no major relevant issues were discovered.

### BUILDING DESCRIPTION OVERVIEW

- **Year Built:** 1971
- **Square Foot:** 111,402 SF
- **# of Stories:** 10, plus penthouse dining (no basement)
- **Site:** Flat, asphalt parking (approx. 64 spaces), with two newly updated concrete Allen Road entrances
- **Roof:** Flat, built-up asphalt and rock (roof re-enforced/built-up completed within the last five years), 2002 Thermoplastic polyolefin (TPO) membrane lobby roof w/ sheetmetal hip roof atrium and sheet metal portico.
- **Walls:** Iron frame, architectural cement wall panels
- **Ceilings/Floors:** Structural cement panels
- **Foundation:** slab, iron piers, concrete block
- **Type of Construction/Materials:** Steel frame, cement block, cement wall panels
- **Plumbing:** copper, galvanized (some replaced, some remaining)
- **Heating Type:** Natural gas packaged heating/cooling, gas forced-air furnaces split systems, electric packaged terminal air conditioners (PTAC), other miscellaneous
- **Cooling Type:** Electric: Rooftop, exterior condensers, PTAC

- **Electrical:** 1000 AMP-1200AMP each in 6-7 switchboards. 3PH/4W. 120/240V. Apartments have individual panel. Building has one meter.
- **Parking:** 64 spaces, plus 8 employee parking spaces

## IMPROVEMENTS

- 2015-2016 The entire exterior building joints were re-caulked. (Cost approximately \$20,000)
- 2012-2016- Two Allen Road street entry driveways were rebuilt, and widened per Wayne County requirements. The concrete drive, and widening was completed at a cost between \$60,000-\$80,000.
- 2012-2016 -Some asphalt was replaced (back garage lot driveway), and the main parking lot was patched, seal-coated and re-stripped with an approximate cost of \$20,000.
- Ongoing - PTAC systems are being replaced. There are approximately 200 resident room, and office PTAC units. About 50% have been replaced at a cost of approximately \$800 each. Half of the building units replaced at a total cost invested of \$80,000. The second half of the 200 units area still need replacement (future expected cost \$80,000).
- 2002- An addition was added to include a front lobby (with atrium), and covered porch walkway connected to a building entrance drive-through canopy. A fire alarm panel was added, and fire sprinkler system expanded. Glycol/anti-freeze system for the sprinkler pipes was introduced to the front lobby sprinkler system at a later date.

## DISCLOSURE

Every attempt has been made in this report to document major issues fairly, accurately, efficiently, and in an organized manner. Some issues may not be included in the *Executive Summary*, or *Table of Probable Costs*. Please read through the report for all issues discovered. A representative amount of components were tested when feasible. (Larger buildings follow a walk-through survey/visual observation type of investigation.) Structure, and components hidden within walls, behind furniture, or equipment could not be observed. Further issues may be discovered during repairs, or when any obstructions are removed.

### 1.1 SITE DESCRIPTION

The property is relatively flat. A deep bed creek is located to the NE of the property. No flooding issues have happened in the past 10 years. Prior history is not known. The main asphalt parking lot has 64 spaces. Some of the asphalt has recently been replaced (to the back of the building). The main parking asphalt has recently been patched, seal-coated and re-stripped. It was in fair condition. There are two concrete street entries from Allen Road (East, SE). The entries were recently re-built, and widened per County requirements. There are four handicap accessible parking spaces.

**CONCERNS:** None

**RECOMMENDATIONS:** None

## 1.2 ENVELOPE PHYSICAL CONDITION

### ROOF

The main 10 story building roof is flat tar and gravel (Built-up). It was re-enforced (or built-up) within the last 5-10 years. It was in good condition.

The entry lobby is a flat roof covered by TPO (white rubber membrane). The lobby as an approximate 8 foot atrium with a sheet metal hip roof. The exterior portico, and driveway canopy is also sheet metal. The lobby and portico roofs were in very good condition..

The average expected life of all three roof types (Built-up, TPO, and metal) is 35-50 years with good maintenance practices. No re-roof is expected to be needed within the next 1-5 years.

**CONCERNS:** None

**RECOMMENDATIONS:** None

### STRUCTURE

The building is steel frame construction with structural cement panel floors/ceiling. The basic inner wall frame is concrete masonry units (CMU), with wood frame interior/divisional walls. The exterior walls are architectural structural cement panels. The structure was in normal condition with no issues discovered at the time of the walk-through survey.

**CONCERNS:** None

**RECOMMENDATIONS:** None

## 1.3 PLUMBING PHYSICAL CONDITION

(1) Maples heights water supply needs are served by public utilities. The overall plumbing through-out Maple Heights was in normal condition. There is copper, and some galvanized supply piping through-out the building. Some larger galvanized trunk/supply lines have been replaced. All risers and supply to rooms is still galvanized. Expect more replacement needs of aged galvanized pipe through-out the years. The waste and drain pipes are mixed PVC, and cast-iron. The main waste piping was in good condition.



**CONCERNS:** The building has some aged galvanized supply pipe in place. Galvanized pipe corrodes, and blocks water flow over time.

**RECOMMENDATIONS:** Replace galvanized pipe as needed. All risers and supply to rooms is still galvanized.

## (2) DOMESTIC HOT WATER

The 10 + story building's domestic hot water needs are served by two water tube, low pressure (160 psi) Lochnivar boilers (Year 2007) located in the penthouse (11th floor) boiler room. The boiler's were in need of maintenance. There was water located on the floor under one of the boilers. The Certificate of Boiler Inspection(s) were provided. The date inspected was 08/02/2016 with an expiration of 08/02/2019. The boiler's require state certification every three years per Michigan State Construction Codes/Boiler Division. A testing report must be completed annually, and the last was completed 5/1/2017

## LAUNDRY FACILITIES

There were two laundry rooms onsite. The main floor laundry area shares use with residents after 12 noon, and the second laundry room is for staff use only. There are booster heaters located in the laundry rooms to bring the buildings domestic hot water supply up to sanitation level heat temperatures.

**CONCERNS:** There was water on the floor under one of the 2007 (10 year-old) boilers. Boilers are expected to operate up to 50+ years.

**RECOMMENDATIONS:** Have both boilers serviced, and repair as needed.

## 1.4 HEATING, VENTILATION, AND AIR CONDITIONING PHYSICAL CONDITION

The majority of the facilities HVAC inventory has been replaced and is partially maintained. Relatively new HVAC equipment was coated with dirt, and salt. Outside air condenser fins were clogged, and had hail damage. PTAC units, and rooftop units (10th story roof) were very well maintained.

The resident rooms (145) and various other rooms, and office spaces are being heated and cooled by packaged terminal air conditioners (PTAC ) through-wall units. The larger common areas, hallways, and kitchen area are being conditioned by a mix of forced-air furnace/ air conditioner split systems, or packaged heating/cooling rooftop units (RTU's). The hallway fresh-air ventilation is being accomplished by a 2003 York 20 TON rooftop air handling unit (in hallways 3-10). The intake, and return vents are located at each end of the relative floor hallway. Air circulation was very good through-out the building during the walk-through survey. An HVAC inventory was provided by Daniel Kirk, maintenance supervisor for 10 years. This has been attached to the report in the Attachment Section.



There are three gas-fired rooftop units (RTU's). They are packaged heating/cooling systems, with the approximate, 20 TON York being the air handling unit (AHU) that circulates fresh air ventilation through hallways 3-10. The other two packaged heating/cooling units service the penthouse (11th floor), and lobby.

There are six to seven split-systems (forced-air furnace, with exterior air conditioner) that heat and cool the dining area, salon, theater, library, laundry, offices, 2nd floor hallway, and front desk.

There are five heat only furnaces, plus one kitchen AHU for kitchen make-up air.

## **HVAC OVERVIEW**

### **PTAC (Approximately 200 units)**

- 100 (approximately) have been replaced at \$800 each= \$80,000
- 100 (approximately) need replacement at \$800 each = \$80,000

### **RTU's -Packaged Heating/Cooling, AHU (Three Units)**

- 2002yr- 4 TON
- 2003yr-20 TON (Hallways 3-10 AHU, Heating/Cooling)
- 2012yr- 5 TON

### **Split Systems (Six Units)**

- Six systems ranging from 2 TON- 5TON
- Four are 2012-2016 (5 years or less)
- Two are 1999, and 2002.

### **Furnace (Heat only), plus 1 Kitchen make-up air (Five Units)**

- Five ranging from year 2012-2014
- 2015 Thermotek make-up air blower works with two of the Modine furnaces for the kitchen.

**CONCERNS:** Approximately one hundred PTAC units are expected to be replaced at an approximate cost of \$80,000 total. Two of the RTU's are 17 years old (an approximate 20 TON AHU, and 4 TON packaged heating/cooling unit). Two cooling condensers to the split-systems are 17 years or older (2 TON, and 2.5 TON). The average life of cooling components (compressor's, evaporator coils, condensers) are 16-23 years. Sometimes it is more cost effective to replace the whole system rather make costly repairs. Note that these concerns are based on average life expectancies only. The forced-air furnaces, and condensers (and miscellaneous HVAC systems) could benefit from a better maintenance plan. Relatively new HVAC equipment was coated with dirt, and salt. Outside air condenser fins were clogged, and had hail damage.

**RECOMMENDATIONS:** Budget for the replacement or repair of the 2003 York 20 TON rooftop AHU that conditions hallways 3-10. This may be \$40,000+ however, please obtain contractor quotes. There is one 2002-4 TON RTU, and two 2 TON condensers that are reaching the cooling average expected life of 16-23 years. These all may be a 1-5 year short-term cost expectation, and are listed in the Table -*Opinions of Probable Costs*.

## 1.5 ELECTRICAL PHYSICAL CONDITION

There is a padmount transformer located at the back of the building. Power distribution through-out the building was obtained by individual electric panels (circuit breaker) with an average 200 AMP main building panel(s). Resident rooms each had a Bryant 60 AMP panel. Overall electric was in fair to good condition. One to two building panels were missing breakers, and had open spaces in the dead front. There is one meter to the building. The building is responsible for all resident electric.

The Park Metal switchboards were located on the 1st, and 2nd floors. Switch gear is considered aging after 25 years. The 47 year old switch gears should be assessed, and exercised periodically.

**CONCERNS:** The 47 year-old switch boards are considered aged. Each 200 AMP supply switch gear shuts-off a vertical column of resident electric panels. Aged switchgear can stick, contact with needed shut-off components can become inoperable. There are a few, and various other electrical maintenance needs through-out the building that should be repaired (open spacing in building electric panels).

**RECOMMENDATIONS:** Obtain a licensed electrician to exercise, clean, and lubricate switchgear. Create an annual electrical maintenance plan on the aging system.

## 1.6 FIRE-SAFETY OVERVIEW

(1) Maple Heights is protected by a wet sprinkler system. Sprinkler heads, and audio visual fire alarms are located through-out the 1st floor, and at the nursing station and elevators on the 2nd floor. They are also located in the hallway near the elevators in floors 3 through 11 (penthouse).

The newer 2002, front lobby/atrium fire sprinkler heads (and piping) were placed on a glycol/antifreeze system due to a past cold weather issue that caused the sprinklers/pipes to freeze and burst. Measures were taken to add insulation and protect the atrium area from freezing. Fire-sprinkler Inspections (including flow test, and glycol test) are completed as required.

The original building fire alarm panel is located on the 2nd floor at the central nurses station. Another, main fire alarm panel is located inside the main entrance. This was most likely new in 2002 when the front lobby and entrance was added. Are basic alert panels that rely on human discovery, and announcement of the triggered smoke detector location. The alarms are audio visual. Inspections are completed as required.

- Main entrance alarm panel: National Time 900
- Second floor (nurses station): Silent Knight

Smoke detectors are located through-out the building, and in the resident units. There are no audio visual alarms within the resident units. Smoke detector sensitivity levels were checked through-out the building, including resident rooms, in the fall of 2016 (11/18/2016). About 70 smoke detectors were replaced. Fire extinguisher inspections are up to date.

The EXIT signage is self-illuminated only (no flood lights), with emergency lighting for hallways provided by the emergency generator.

The hallways are divided in the middle by magnetic release smoke barrier fire doors that are inspected annually.

The company that manages all of Maple Heights Fire-Safety needs (both inspections, and repairs) is:

Cintas Fire Protection 232E. Maple RD Troy, MI 48063 Phone: (248) 817-3800

#### **FIRE-SAFETY INSPECTIONS (OVERVIEW)**

- Annual Fire Sprinkler Inspection completed 2/13/2017
- Semi-Annual Sprinkler inspection report completed 8/19/2016.
- Semi-Annual Exhaust Hood Fire Suppression System completed 3/21/2017
- Fire Alarm Panels (two) were inspected 11/18/2016
- Fire Alarm Controls 11/18/2017
- Smoke detector (SD) sensitivity levels were tested through-out the building, and resident units in fall of 2016. 11/18/2016 (70 SD's were replaced)
- Annual -Fire extinguisher's were inspected

**CONCERNS:** None

**RECOMMENDATIONS:** None

#### **(2) ELEVATORS**

Maple Heights has two elevators that service floors 1- 11 (penthouse). They were in overall good condition, and the annual Elevator Certification of Operation is completed 11/30/2017 and is up to date.

#### **EMERGENCY GENERATOR**

The facility has a CAT Model SRCR emergency generator (diesel), and Cummins transfer switch Model OTECC-5732163 rated for 600 AMPS/208 Volts. The generator is located on the 1st floor. The emergency generator automatically runs for one hour every Thursday.

The generator powers emergency lighting in all hallways, everything on the 1st floor, and the elevators. The age of the generator is unknown, but it is assumed to be the original 1971 emergency power source.

Older generators should be replaced when the replacement of parts become more frequent. Some replacement parts may not be available. Older generators should undergo periodic load bank tests to ensure the integrity of the entire system to carry its name-plated load (600 AMPS/208 Volts). A load bank test was completed on this system 7/8/2015.

The generator had liquid puddles on the floor. We were supplied a Cummins Bridgeway, LLC Emergency Generator (Cummins) inspection report WO # 22816. Date 7/8/2015. The generator requires an annual inspection. There is an inspection scheduled within the next couple of weeks.

The generator fuel tank is double walled, and approximately 1000 gallon diesel above ground tank. It is rusting/aged. There is an inner tank with an unknown condition.

**CONCERNS:** There were puddles (type of liquid unknown) on the floor under the emergency generator. It is in need of maintenance. The last inspection was completed two years ago, and the generator requires an annual inspection. It appears to be the original 1971 generator, although the actual date is unknown. The above ground diesel fuel tank is rusting. The inner tank condition is unknown

**RECOMMENDATIONS:** An inspection and maintenance is already scheduled within the next couple of weeks. It may be feasible to have the generator assessed by Cummins Bridgeway, LLC (current servicer) for a recommendation, or benefits of replacing the 40+ year old generator.

1.7 OPINION OF PROBABLE COSTS

We have attached a spreadsheet that details a Table of Probable Costs: Immediate, and Short-Term (1-5ys). You must open the spreadsheet from the Attachment Section of This Report.

There are many factors that will influence the cost of repairs or replacement of equipment/components. The costs provided are an opinion only, and are based upon previous cost quotes provided to us through the years.

**It is recommended that you get at least three contractor bids for the most accurate cost evaluation.**

2. PURPOSE AND SCOPE

Items

2.0 PURPOSE

The purpose of this report is to provide a general building envelope, plumbing, mechanical and electrical assessment of SAMPLE Park Michigan 48101, SAMPLE Heights Retirement Community. This report will reference areas of deferred maintenance, general weathering, and issues that require a specialist contractor assessment. Opinions of Probable Costs will be provided when available. Some items may require a specialist assessment and bid. It is important to understand that any cost estimates provided can deviate widely to actual costs.

## 2.1 SCOPE OF WORK

Evaluate and document the condition of existing mechanical, electrical, and plumbing systems presently serving the building located at SAMPLE, Allen Park Michigan 48101. In addition, the building's exterior envelopes shall be evaluated and documented. The assessment shall follow the best practices of the ASTM E2018-08 " Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process".

## 2.2 PROPERTY ACCESS AND NON-ACCESS DISCLOSURE

## 2.3 SUPPLEMENTAL AVAILABLE INFORMATION

Opinions and concerns documented in this report are based on field observations of the subject property and supplemental information sources that include the following:

### INTERVIEWS

Daniel Kirk Spectrum Retirement/SAMPLE Heights maintenance supervisor for approximately 10 years.

### DOCUMENTS (Available on Request)

Cintas Fire Protection (Fire-Safety Reports)- 232E. Maple RD Troy, MI 48083 Phone: (248) 817-3800

Bureau of Construction Codes Elevator Certification #'s 760194 (3500 LB capacity), and 738655 (2500 LB capacity) - Date: 11/30/2017

City of Allen Park (Miscellaneous documents, and blueprints) - 16630 Southfield Rd Suite 3100 Allen Park, MI 48101. Phone: (313) 928-4447. Periodic pictures were taken of relevant files. The full file folders (3 ) must be viewed at the City of Allen Park.

SAMPLE Heights HVAC inventory list provided by Daniel Kirk. This document is attached to the report.

Cummins Bridgeway, LLC Emergency Generator (Cummins) inspection report WO # 22816

Certificate of Boiler Inspection (s) # M491487, and M491486 issued by Michigan Department of Licensing and Regulatory Affairs. Certificates are renewed every 3 years. The next is due in August 2019.

ASME CSD-1 Boiler Annual Testing Report completed on 5/1/2017 by HVAC Systems Inc. 15581 Oakwood Drive, Romulus, MI 48101 PH: (734) 941-8200.

### 3. SITE

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*Items*

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#### 3.0 SITE OVERVIEW

The property is relatively flat. A deep bed creek is located to the NE of the property. No flooding issues have happened in the past 10 years. Prior history is not known. The main asphalt parking lot has 64 spaces. Some of the asphalt has recently been replaced (to the back of the building). The main parking asphalt has recently been patched, seal-coated and re-stripped. It was in fair condition. There are two concrete street entries from Allen Road (East, SE). The entries were recently re-built, and widened per County requirements. There are four handicap accessible parking spaces.

**CONCERNS:** None





3.0 Item 1(Picture) New Allen Road entry



3.0 Item 2(Picture) Covered drive-through



3.0 Item 3(Picture)



3.0 Item 4(Picture)



3.0 Item 5(Picture)



3.0 Item 6(Picture)





3.0 Item 7(Picture)



3.0 Item 8(Picture)



3.0 Item 9(Picture) Employee parking-only small areas  
of asphalt need repair

## 4. BUILDING ENVELOPE

### *Items*

#### 4.0 ROOFING

(1) The main 10 story building roof is flat tar and gravel (Built-up). It was re-enforced (or built-up) within the last 5-10 years. It was in good condition.

The entry lobby is a flat roof covered by TPO (white rubber membrane). The lobby has an approximate 8 foot atrium with a sheet metal hip roof. The exterior portico, and driveway canopy is also sheet metal. The lobby and portico roofs were in very good condition.

The average expected life of all three roof types (Built-up, TPO, and metal) is 35-50 years with good maintenance practices. No re-roof is expected to be needed within the next 1-5 years.



CONCERNS: None

RECOMMENDATIONS: None



4.0 Item 1(Picture)



4.0 Item 2(Picture)



4.0 Item 3(Picture)



4.0 Item 4(Picture)



4.0 Item 5(Picture)



4.0 Item 6(Picture)



**(2) LOBBY/ATRIUM/PORTICO ROOFS (NEW in 2002)**

The entry lobby is a flat roof covered by TPO (white rubber membrane). The lobby as an approximate 8 foot atrium with a sheet metal hip roof. The exterior portico, and driveway canopy is also sheet metal. The lobby and portico roofs were in very good condition.



4.0 Item 7(Picture)



4.0 Item 8(Picture)



4.0 Item 9(Picture)

**4.1 EXTERIOR WALL SYSTEM****STRUCTURE**

The building is steel frame construction with structural cement panel floors/ceiling. The basic inner wall frame is concrete masonry units (CMU), with wood frame interior/divisional walls. The exterior walls are architectural structural cement panels. The structure was in normal condition with no issues discovered at the time of the walk-through survey. The entire exterior building was recently re-caulked at a cost of about \$20,000.

The decks are structural cement panels. There was some water staining-but no structural issues could be found.

**CONCERNS:** None

**RECOMMENDATIONS:** None



4.1 Item 1(Picture)



4.1 Item 2(Picture) Windows were very good



4.1 Item 3(Picture) Whole exterior building re-caulked. Structural cement panel deck floors



4.1 Item 4(Picture) Decks are structural cement panels- There was some water staining-but no structural issues could be found.

## 5. PLUMBING

### Items

#### 5.0 SUPPLY AND WASTE PIPING

Maples heights water supply needs are served by public utilities. The overall plumbing through-out Maple Heights was in normal condition. There is copper, and some galvanized supply piping through-out the building. Some larger galvanized trunk/supply lines have been replaced (1st floor and some valves). Expect more replacement needs of aged galvanized pipe through-out the years. All risers and supply to rooms is still galvanized. The waste and drain pipes are mixed PVC, and cast-iron. The main waste piping was in good condition.

**CONCERNS:** The building has some aged galvanized supply pipe in place. Galvanized pipe corrodes, and blocks water flow over time.

**RECOMMENDATIONS:** Replace galvanized pipe as needed. All risers and supply to rooms is still galvanized.

## 5.1 DOMESTIC HOT WATER PRODUCTION

The 10 + story building's domestic hot water needs are served by two water tube, low pressure (160 psi) Lochnivar boilers (Year 2007) located in the penthouse (11th floor) boiler room. The boiler's were in need of maintenance. There was water located on the floor under one of the boilers. The Certificate of Boiler Inspection(s) were provided. The date inspected was 08/02/2016 with an expiration of 08/02/2019. The boiler's require state certification every three years per Michigan State Construction Codes/Boiler Division. A testing report must be completed annually, and the last was completed 5/1/2017

### LAUNDRY FACILITES

There were two laundry rooms onsite. The main floor laundry area shares use with residents after 12 noon, and the second laundry room is for staff use only. There are booster heaters located in the laundry rooms to bring the buildings domestic hot water supply up to sanitation level heat temperatures.

**CONCERNS:** There was water on the floor under one of the 2007 (10 year-old) boilers. Boilers are expected to operate up to 50+ years.

**RECOMMENDATIONS:** Have both boilers serviced, and repair as needed.





5.1 Item 1(Picture) Water on floor below Lochnivar boiler- needs service



5.1 Item 2(Picture)



5.1 Item 3(Picture) 2nd boiler

## 6. HEATING, VENTILATION, AND AIR CONDITIONING

### *Items*

#### 6.0 HEATING/COOLING/VENTILATION

(1) The majority of the facilities HVAC inventory has been replaced and is partially maintained. Relatively new HVAC equipment was coated with dirt, and salt. Outside air condenser fins were clogged, and had hail damage. PTAC units, and rooftop units (10th story roof) were very well maintained.

#### PACKAGED HEATING/COOLING ROOFTOP UNITS

There are three gas-fired rooftop units (RTU's). They are packaged heating/cooling systems, with the approximate, 20 TON York being the air handling unit (AHU) that circulates fresh air ventilation through hallways 3-10. The other two packaged heating/cooling units service the penthouse (11th floor), and lobby.

Two of the RTU's are 17 years old (an approximate 20 TON AHU, and 4 TON packaged heating/cooling unit). Two cooling condensers to the split-systems are 17 years or older (2 TON, and 2.5 TON). The average life of cooling components (compressor's, evaporator coils, condensers) are 16-23 years. Sometimes it is more cost effective to replace the whole system rather make costly repairs.





6.0 Item 1(Picture) York AHU for hallways 3-10



6.0 Item 2(Picture) Hail damage on York condenser fins



6.0 Item 3(Picture) AHU duct return and supply vents at each end of hallways 3-10-great condition



6.0 Item 4(Picture) AHU duct return and supply vents at each end of hallways 3-10-great condition



6.0 Item 5(Picture) 2012 5 TON Trane-serves penthouse



6.0 Item 6(Picture) Lobby area 2002 Carrier may need replacement within the next 1-5 yrs

(2) PTAC

The resident rooms (145) and various other rooms, and office spaces are being heated and cooled by packaged terminal air conditioners (PTAC ) through-wall units. About 1/2 of 200+ units have been replaced. Expect to replace about 100 more units over the next 5 years.

The framework for the new Amana replacement needs to be retrofitted to adapt to the smaller new units.



6.0 Item 7(Picture)



6.0 Item 8(Picture) The framework for the new Amana replacement needs to be retrofitted to adapt to the smaller new units.



6.0 Item 9(Picture) The framework for the new Amana replacement needs to be retrofitted to adapt to the smaller new units.

### (3) FORCED-AIR FURNACE/ OUTSIDE AIR CONDENSER SPLIT SYSTEM

There are six to seven split-systems (forced-air furnace, with exterior air conditioner) that heat and cool the dining area, salon, theater, library, laundry, offices, 2nd floor hallway, and front desk.

Relatively new HVAC equipment was coated with dirt, and salt. Outside air condenser fins were clogged, and had hail damage.

**COOLING CONDENSERS**

The average life of cooling components (compressor's, evaporator coils, condensers) are 16-23 years. Sometimes it is more cost effective to replace the whole system rather make costly repairs. Two of these condensers (2 TON) are currently at 17 and 19 years. Plan for replacement within the next 1-5 years.

**CONCERNS:** Approximately one hundred PTAC units are expected to be replaced at an approximate cost of \$80,000 total. Two of the RTU's are 17 years old (an approximate 20 TON AHU, and 4 TON packaged heating/cooling unit). Two cooling condensers to the split-systems are 17 years or older (2 TON, and 2.5 TON). The average life of cooling components (compressor's, evaporator coils, condensers) are 16-23 years. Sometimes it is more cost effective to replace the whole system rather make costly repairs. Note that these concerns are based on average life expectancies only. The forced-air furnaces, and condensers (and miscellaneous HVAC systems) could benefit from a better maintenance plan. Relatively new HVAC equipment was coated with dirt, and salt. Outside air condenser fins were clogged, and had hail damage.

**RECOMMENDATIONS:** Budget for the replacement or repair of the 2003 York 20 TON rooftop AHU that conditions hallways 3-10. This may be \$40,000+ however, please obtain contractor quotes. There is one 2002-4 TON RTU, and two 2 TON condensers that are reaching the cooling average expected life of 16-23 years. These all may be a 1-5 year short-term cost expectation, and are listed in the Table -*Opinions of Probable Costs*.





6.0 Item 10(Picture) Dining Room - split systems 2012 Bryant



6.0 Item 11(Picture) Outside air condenser fins were clogged, and had hail damage.



6.0 Item 12(Picture) Outside air condenser fins were clogged, and had hail damage.

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#### Out of Scope Issues:

Plumbing: Determining adequate pressure and flow rate, fixture-unit values and counts, verifying pipe sizes, or verifying the point of discharge for underground systems. Observation of flue connections, interiors of chimneys, flues or boiler stacks, or tenant owned or maintained equipment. Removing of electrical panel and device covers, except if removed by building staff, EMF issues, electrical testing, or operating of any electrical devices, or opening on process related equipment or tenant owned equipment. Examining of cables, sheaves, controllers, motors, inspection tags, or entering elevator/escalator pits or shafts.

## 7. ELECTRICAL

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### *Items*

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#### 7.0 SERVICES, METERING, AND POWER DISTRIBUTION

There is a padmount transformer located at the back of the building. Power distribution through-out the building was obtained by individual electric panels (circuit breaker) with an average 200 AMP main building panel(s). Resident rooms each had a Bryant 60 AMP panel. Overall electric was in fair to good condition. One-two building panels were missing breakers, and had open spaces in the dead front.

The Park Metal switchboards were located on the 1st, and 2nd floors. Switch gear is considered aging after 25 years. The 47 year old switch gears should be assessed, and exercised periodically.

**CONCERNS:** The 47 year-old switch boards are considered aged. Each 200 AMP supply switch gear shuts-off a vertical column of resident electric panels. Aged switchgear can stick, contact with needed shut-off components can become inoperable. There are a few, and various other electrical maintenance needs throughout the building that should be repaired (open spacing in building electric panels).

**RECOMMENDATIONS:** Obtain a licensed electrician to exercise, clean, and lubricate switchgear. Create an annual electrical maintenance plan on the aging system.



7.0 Item 1(Picture) Aged switchboards require a maintenance plan



7.0 Item 2(Picture) Aged switchboards require a maintenance plan



7.0 Item 3(Picture) One-two panels needed servicing.

## 8. LIFE SAFETY/FIRE PROTECTION

### Items

#### 8.0 SPRINKLER/STANDPIPES

(1) Maple Heights is protected by a wet sprinkler system. Sprinkler heads, and audio visual fire alarms are located through-out the 1st floor, and at the nursing station and elevators on the 2nd floor. They are also located in the hallway near the elevators in floors 3 through 11 (penthouse).

The newer 2002, front lobby/atrium fire sprinkler heads (and piping) were placed on a glycol/antifreeze system due to a past cold weather issue that caused the sprinklers/pipes to freeze and burst. Measures were taken to add insulation and protect the atrium area from freezing. Fire-sprinkler Inspections (including flow test, and glycol test) are completed as required.

The original building fire alarm panel is located on the 2nd floor at the central nurses station. Another, main fire alarm panel is located inside the main entrance. This was most likely new in 2002 when the front lobby and entrance was added. Are basic alert panels that rely on human discovery, and announcement of the triggered smoke detector location. The alarms are audio visual. Inspections are completed as required.

- Main entrance alarm panel: National Time 900
- Second floor (nurses station): Silent Knight

Smoke detectors are located through-out the building, and in the resident units. There are no audio visual alarms within the resident units. Smoke detector sensitivity levels were checked through-out the building, including resident rooms, in the fall of 2016 (11/18/2016). About 70 smoke detectors were replaced. Fire extinguisher inspections are up to date.

The EXIT signage is self-illuminated only (no flood lights), with emergency lighting for hallways provided by the emergency generator.

The hallways are divided in the middle by magnetic release smoke barrier fire doors that are inspected annually.

The company that manages all of Maple Heights Fire-Safety needs (both inspections, and repairs) is:

Cintas Fire Protection 232E. Maple RD Troy, MI 48083 Phone: (248) 817-3800

#### **FIRE-SAFETY INSPECTIONS (OVERVIEW)**

- Annual Fire Sprinkler Inspection completed 2/13/2017
- Semi-Annual Sprinkler inspection report completed 8/19/2016.
- Semi-Annual Exhaust Hood Fire Suppression System completed 3/21/2017
- Fire Alarm Panels (two) were inspected 11/18/2016
- Fire Alarm Controls 11/18/2017
- Smoke detector (SD) sensitivity levels were tested through-out the building, and resident units in fall of 2016. 11/18/2016 (70 SD's were replaced)
- Annual -Fire extinguisher's were inspected

**CONCERNS:** None

**RECOMMENDATIONS:** None



8.0 Item 1(Picture) Basic alarm control center requires stall location of triggered smoke alarm



8.0 Item 2(Picture)



8.0 Item 3(Picture) Three new Pumps to send sprinkler to upper floors

## (2) EMERGENCY GENERATOR

The facility has a CAT Model SRCR emergency generator (diesel), and Cummins transfer switch Model OTECC-5732163 rated for 600 AMPS/208 Volts. The generator is located on the 1st floor. The emergency generator automatically runs for one hour every Thursday.

The generator powers emergency lighting in all hallways, everything on the 1st floor, and the elevators. The age of the generator is unknown, but it is assumed to be the original 1971 emergency power source.

Older generators should be replaced when the replacement of parts become more frequent. Some replacement parts may not be available. Older generators should undergo periodic load bank tests to ensure the integrity of the entire system to carry its name-plated load (600 AMPS/208 Volts). A load bank test was completed on this system 7/8/2015.



The generator had liquid puddles on the floor. We were supplied a Cummins Bridgeway, LLC Emergency Generator (Cummins) inspection report WO # 22816. Date 7/8/2015. The generator requires an annual inspection. There is an inspection scheduled within the next couple of weeks.

The generator fuel tank is double walled, and approximately 1000 gallon diesel above ground tank. It is rusting/aged. There is an inner tank with an unknown condition.

**CONCERNS:** There were puddles (type of liquid unknown) on the floor under the emergency generator. It is in need of maintenance. The last inspection was completed two years ago, and the generator requires an annual inspection. It appears to be the original 1971 generator, although the actual date is unknown. The above ground diesel fuel tank is rusting. The inner tank condition is unknown

**RECOMMENDATIONS:** An inspection and maintenance is already scheduled within the next couple of weeks. It may be feasible to have the generator assessed by Cummins Bridgeway, LLC (current servicer) for a recommendation, or benefits of replacing the 40+ year old generator.



8.0 Item 4(Picture)



8.0 Item 5(Picture)



8.0 Item 6(Picture)



8.0 Item 7(Picture)



8.0 Item 8(Picture) Cummins Transfer Switch

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#### Out of Scope Issues

Determining NFPA hazard classifications, classifying, or testing fire rating of assemblies.

# 9. INTERIOR PICTURES

Items

## 9.0 PICTURE OVERVIEW

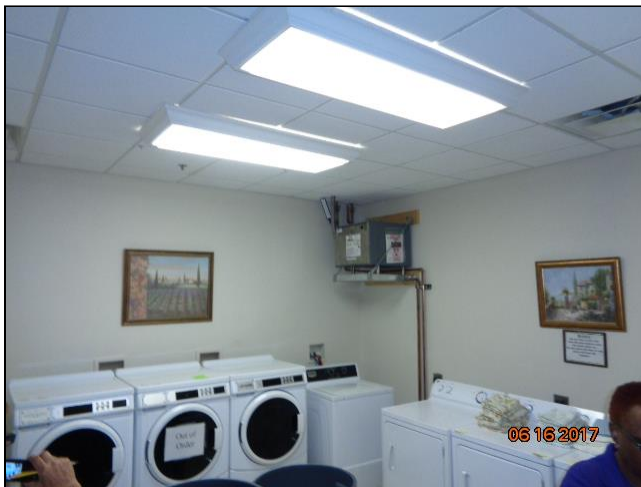
(1) COMMON AREAS



9.0 Item 1(Picture) 1st floor dining area



9.0 Item 2(Picture)



9.0 Item 3(Picture) Resident/staff laundry



9.0 Item 4(Picture) 1st floor public restroom



9.0 Item 5(Picture) Pull cords in all bathrooms

**(2) TYPICAL RESIDENT APARTMENT**





9.0 Item 6(Picture) 10th floor



9.0 Item 7(Picture)



9.0 Item 8(Picture)



9.0 Item 9(Picture)



9.0 Item 10(Picture)



9.0 Item 11(Picture)



9.0 Item 12(Picture) Third party managed assisted living - floor 2



9.0 Item 13(Picture) 2nd floor assisted living



9.0 Item 14(Picture)



9.0 Item 15(Picture)

**(3) PENTHOUSE (11th Floor)**



9.0 Item 16(Picture)



9.0 Item 17(Picture) 11th floor Penthouse dining



9.0 Item 18(Picture) 11th floor Penthouse dining

(4) ELEVATOR ROOM



9.0 Item 19(Picture) New cables and other updates

(5) KITCHEN





9.0 Item 20(Picture) Kitchen fire-safety is up to date



9.0 Item 21(Picture) Kitchen fire-safety is up to date

(6) EXTRA EXTERIOR/SITE



9.0 Item 22(Picture)



9.0 Item 23(Picture)



9.0 Item 24(Picture) Back of building



9.0 Item 25(Picture)



9.0 Item 26(Picture)



9.0 Item 27(Picture)