

## 123 Any Street, Some City, IL

This report is prepared exclusively for **Some Customer** Inspected On: **2022-11-25** 

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**Published Report** 



This property was a mid sized commercial structure that was nearly 30 years old. There was some deferred maintenance on the exterior and the HVAC systems need replacement and significant attention in the not too distant future. It is highly recommended that the buyer read the report carefully, especially with regards to the future costs that may be incurred.

Mark Hughes - IL License 450-011855 - Expires 11/30/2022

**Inspected By:** 

Mark Hughes, IL State

License #451.011855

# The Scope and Purpose of a Property Inspection

## Purchasing property involves risk

The purpose of a property inspection is to help reduce the risk associated with the purchase of a structure by providing a professional opinion about the overall condition of the structure. A property inspection is a limited visual inspection and it cannot eliminate this risk. Some structures present more risks than others. We cannot control this, but we try to help educate you about what we don't know during the inspection process. This is more difficult to convey in a report and one of many reasons why we recommend that you attend the inspection.

## A property inspection is not an insurance policy

This report does not substitute for or serve as a warranty or guarantee of any kind. Warranties can be purchased separately from insuring firms that provide this service.

## A property inspection is visual and not destructive

The descriptions and observations in this report are based on a visual inspection of the structure. We inspect the aspects of the structure that can be viewed without dismantling, damaging or disfiguring the structure and without moving interior objects. Areas that are concealed, hidden or inaccessible to view are not covered by this inspection. Some systems cannot be tested during this inspection as testing risks damaging the building or those systems if they have been temporarily de-commissioned. Our procedures involve non-invasive investigation and non-destructive testing which will limit the scope of the inspection.

## This is not an inspection for code compliance

This inspection and report are not intended for city / local code compliance. During the construction process structures are inspected for code compliance by municipal inspectors. Framing, if open at the time of the inspection can be fully viewed. Framing is typically not open during inspections of finished structures, and this limits the inspection. All structures fall out of code compliance shortly after they are built, as the codes continually change. National codes are augmented at least every three years for all of the varying disciplines. Municipalities can choose to adopt and phase in sections of the codes on their own timetables. There are generally no requirements to bring older structures into compliance unless substantial renovation is being done.

## This is just our opinion

Construction techniques and standards vary. There is no one way to build a structure or install systems in a structure. The observations in this report are the opinions of the inspector. Other inspectors and contractors are likely to have some differing opinions. You are welcome to seek opinions from other professionals.

## The scope of this inspection

This inspection will include the following systems: exterior, roof, structure, drainage, foundation, attic, interior, plumbing, electrical and heating. The evaluation will be based on limited observations that are primarily visual and non-invasive. This inspection and report are not intended to be technically exhaustive.

## Your expectations

The overall goal of a property inspection is to help ensure that your expectations are appropriate with the structure you are proposing to buy. To this end we assist with discovery by showing and documenting observations during the structure inspection. This should not be mistaken for a technically exhaustive inspection designed to uncover every defect with a building. Such inspections are available but they are generally cost-prohibitive to most property buyers.

## Your participation is optional

Your presence is optional during this inspection. This written report will discuss concerns and potentially needed repairs on the property and the inspector is always available for in-depth discussions regarding the property once you have had time to read through and examine the report in detail.

# How to Read This Report

## Getting the Information to You

This report is designed to deliver important and technical information in a way that is easy for anyone to access and understand. If you are in a hurry, you can take a quick look at our "Summary Page" and quickly get critical information for important decision making. However, we strongly recommend that you take the time to read the full Report, which includes digital photographs, captions, diagrams, descriptions, videos and hot links to additional information.

The best way to get the layers of information that are presented in this report is to read your report

online (the HTML version), which will allow you to expand your learning about your property. You will notice some words or series of words highlighted in blue and underlined – clicking on these will provide you with a link to additional information. The HTML version of this report also contains streaming videos. Short video clips often contain important information and critical context and sounds that can be difficult to capture in words and still pictures.

For the most reliable viewing experience, I recommend viewing the report on as large a screen as practical, as much detail can be lost on small devices like smart phones. For similar reasons, reports should only be printed in color to retain as much detail as possible and minimize misinterpretation of photographs.

This report can also be <u>printed on paper or to a PDF document</u>.

## **Chapters and Sections**

This report is divided into chapters that parcel the structure into logical inspection components. Each chapter is broken into sections that relate to a specific system or component of the structure. You can navigate between chapters with the click of a button on the left side margin.

Most sections will contain some descriptive information done in black font. Observation narrative, done in colored boxes, will be included if a system or component is found to be significantly deficient in some way or if we wish to provide helpful additional information about the system or the scope of our inspection. If a system or component of the structure was deemed to be in satisfactory or serviceable condition, there may be no narrative observation comments in that section and it may simply say "tested," or "inspected."

### **Observation Labels**

All narrative observations are colored, numbered and labeled to help you find, refer to, and understand the severity of the observation. Observation colors and labels used in this report are:

⚠ **Major Concern:** Repair items that may cost significant money to correct now or in the near future, or items that require immediate attention to prevent additional damage or eliminate safety hazards.

**Repair:** Repair and maintenance items noted during inspection. Please note that some repair items can be expensive to correct such as re-finishing hardwood floors, but are considered simply repair items due to their cosmetic nature.

**Recommended Maintenance:** These are repair items that should be considered "routine home ownership items," such as servicing the furnace, cleaning the gutters or changing the air filters in the furnace.

**Improve:** Observations that are not necessarily defects, but which could be improved for safety, efficiency, or reliability reasons.

- **Monitor:** Items that should be watched to see if correction may be needed in the future.
- Q **Due Diligence:** Observation such as a buried oil tank that may require further investigation to determine the severity and / or urgency of repair.
- Future Project: A repair that may be deferred for some time but should be on the radar for repair or replacement in the near future.
- $\nearrow$  **Note:** Refers to aside information and /or any comments elaborating on descriptions of systems in the home or limitations to the home inspection.

## **Pest Inspection**

All items with the bug logo ( $^{\bigodot}$ ) are part of a structural pest inspection. If your inspector included a structural pest inspection as a part of the scope of your home inspection, you can distinguish pest inspection items by this logo. You can also go to the pest inspection summary page to see a summary of the items that are part of a pest inspection.

## Summary Page

The Summary Page is designed as a bulleted overview of all the observations noted during inspection. This helpful overview is not a substitution for reading the entire inspection report. The entire report must be read to get a complete understanding of this inspection report as the Summary Page does not include photographs or photo captions.

# Summary

### Major Concerns

⚠ IMAES-19 IV MECHANICAL AND ELECTRICAL SYSTEMS: Corrosion and moisture related staining was noted on the vent pipe for the boilers both on the roof and in the mechanical closet and was excessively present on one of the two boilers. The massive boilers in the basement appear to have insufficient access to combustion/dilution air which can reduce the ability for the boilers to vent properly resulting in the formation of condensation in the vent piping. These boilers were installed in 2011 which suggests that the existing boilers were only in service for 21 years. Cast iron boilers can last for more than 35 years if maintained properly and in order to reduce the risk of equipment damage, inefficient combustion and infiltration of carbon monoxide into the structure, a controlled intake ventilation damper system that draws intake air from the outside of the structure should be installed by a qualified HVAC or mechanical contractor.

Also, as a part of the transfer of ownership of the property all of the HVAC equipment should be cleaned, serviced and certified as properly operational by a qualified mechanical contractor.

<u>MAES-21</u> IV MECHANICAL AND ELECTRICAL SYSTEMS: The A/C condenser is well beyond the end of the expected service life and although the system was not tested at the time of the inspection, cooling levels may be inadequate in the near future. <u>The R-22 refrigerant that is used in the unit is being phased out</u> and no new or imported R-22 is allowed in the U.S. and technicians will only be able to use recycled, reclaimed, or previously produced R-22 to service equipment. Therefore it will become more expensive to service the unit in the future. The cost to retrofit the HVAC system to use the new R-410 A replacement refrigerant is expensive and involves replacing the evaporator coils in the air handling unit.

⚠ IMAES-27 IV MECHANICAL AND ELECTRICAL SYSTEMS: Live abandoned electrical wiring was found in at least one location and in order to reduce the risk for electrical shock and fire, all of the abandoned wiring in the structure should be located and removed or capped off and enclosed inside metal junction boxes by a qualified electrician.

<u>MAES-28</u> IV MECHANICAL AND ELECTRICAL SYSTEMS: Exposed wiring was observed on the north side of the masonry sign in front of the structure. In order to reduce the risk for electrical shock from inadvertent contact with exposed current carrying equipment and in order to contain molten copper created by high temperature arcing and sparking of energized wiring, it is recommended that all electrical connections be concealed inside covered metal junction boxes by a qualified electrician.

## Repairs

☐ IGPC-2 I GENERAL PHYSICAL CONDITION: The majority of the drainage is contained on site and is tributary to what appears to be a standing water retention basin on the front of the property. The retention basin has significant plant growth in and around the basin that appears to be clogging the inlet and outlet of the basin as they were not visible at the time of the inspection. This plant growth limits the effectiveness of the basin and may have undesirable species and in order to maintain the proper operation of the basin, it is recommended that a landscape designer that specializes in retention basin design evaluate the basin. If undesirable species are present, a plan for cleaning and restoring the basin should be developed.

Here is a link to a publication that was prepared by the Wisconsin Department of Natural Resources that appears on the Lake County Illinois website that discusses plants for proper basin design: <u>Using natural landscaping for water quality & esthetics</u>

☐ IGPC-4 I GENERAL PHYSICAL CONDITION: The asphalt paving is cracked and deteriorated and the open joints exacerbate further deterioration from moisture either saturating and softening the base or from freeze/thaw action in winter. In order to prolong the life of the asphalt the severely deteriorated portions should be removed and patched, minor cracks should be filled and the entire paved area should then be seal coated. Evaluation and repair by a qualified asphalt contractor is recommended.

☐ IGPC-5 I GENERAL PHYSICAL CONDITION: The existing curb is in generally good condition, however, some portions are cracked and damaged and some areas do not drain completely which can contribute to the deterioration of the asphalt paving. In order to reduce the potential for moisture related damage to asphalt areas, damaged areas of curb and gutter should be replaced prior to any asphalt patching or seal-coating that may be considered.

IGPC-6 I GENERAL PHYSICAL CONDITION: There are drop-offs behind the curb that create possible trip hazards and also leave the back of the curb unsupported and more prone to snowplow damage. In order to reduce the potential for injury and damage, it is recommended that a qualified landscaping contractor backfill the low areas adjacent to the curbs with topsoil and that the areas be restored with appropriate grass seed mix.

The plastic covering on one of the bollards by the drive-thru was cracked and the bollard beneath was heavily corroded. It is unknown if the plastic covering is accelerating the corrosion of the bollard or the bollard is corroding from exposure. In order to provide the intended protection for the drive-thru lanes, It is recommended that the corroded bollard be evaluated and repaired or replaced by a qualified concrete contractor and at least one covered bollard should be more closely examined in order to determine if there is a widespread problem.

☐ IGPC-8 I GENERAL PHYSICAL CONDITION: The exterior concrete walks have cracks which can allow moisture penetration that creates the potential for further damage from freeze/ thaw cycles. In order to reduce the potential for moisture related damage, the cracks should be sealed by a qualified concrete repair contractor.

☐ IGPC-9 I GENERAL PHYSICAL CONDITION: Several of the sidewalk squares have settled and are sloping towards the building preventing those areas from draining. In order to reduce the potential for excess moisture to affect the foundation, it is recommended that either the

settled slabs be replaced or it may be possible to lift the slabs through slabjacking.

It should be noted that while slabjacking costs considerably less than replacement, it may have temporary results and it is important to make sure that warranty options are explored from the contractor performing the work in case the slab re-settles.

Here is a link to information from a contractor regarding options for settled concrete: <u>Three Options for Repairing Sunken Concrete</u>

Here is a link to a site that has pros and cons of slabjacking: Pros and Cons of Mudjacking

**□ IGPC-10 I GENERAL PHYSICAL CONDITION:** There are drop-offs along the edges of the walk that create possible trip hazards. In order to reduce the potential for injury, it is recommended that a qualified landscaping contractor backfill the low areas adjacent to the walk with topsoil and that the areas be restored with appropriate grass seed mix.

☐ IGPC-11 I GENERAL PHYSICAL CONDITION: Damage to the masonry walls surrounding the waste container storage were observed. The metal capping at the top of the masonry walls does not conform with industry standards as published by the Sheet-Metal and Air Conditioning Contractors National Association (SMACNA). The metal wall cap does not promptly shed moisture; does not have sleeved and gasketed overlaps; and is composed of relatively thin metal which will expand and contract significantly from temperature changes. These defects greatly increase the risk for moisture penetration into and through the underlying masonry walls. It is recommended that plans be made for the near-term replacement of the existing wall cap with one that reflects industry standards and best practices. As a part of the cap replacement, any cracked wall areas should be re-pointed and repaired as needed by a qualified masonry contractor.

Also, concrete slab that also surrounds the posts for the gates on the waste enclosure is badly cracked, especially around the posts which may affect the stability of the gates and the slab should be evaluated and repaired or replaced by a qualified concrete repair contractor.

☐ IGPC-12 I GENERAL PHYSICAL CONDITION: The existing bushes, trees and landscaping installations are overgrown and/or dead and in need of trimming and/or removal. Also, some erosion is occurring on the more severe slopes and alternatives like groundcover rather than mulch may provide for more stable installations. For proper appearance of the property the vegetation in the exterior areas should be evaluated by a qualified arborist and/or landscaping contractor and be addressed as needed.

**□ IGPC-13 I GENERAL PHYSICAL CONDITION:** Nests for flying stinging pests were noted in several locations around the structure and in order to discourage further nest building, extreme care should be take to remove all old and active nests.

There are many ways to discourage these insects from establishing residences on your property, one way is to plant vegetation that repels bees and wasps.

Here is a link to an article with information regarding this practice: 10 plants that repel bees and wasps

Here is a link to an article that has additional information regarding natural insect repellents: 6 Ways to Keep Wasps Away From You

☐ IGPC-14 I GENERAL PHYSICAL CONDITION: Several of the exterior signs had been displaced and may need to be re-installed if their use is still desired.

☐ IGPC-15 I GENERAL PHYSICAL CONDITION: It appears that an animal may have taken up residence under the rear sidewalk. In order to determine if an animal is present, it is recommended that the area be closely examined and if none is found, the entrance should be sealed with materials that would deter future burrowing.

Here is a link on how to identify various burrowing animals and potential remedies on how to deter their presence: How to Get Rid of Burrowing Animals in your Yard

IU-5 II UTILITIES: The manhole cover for the sanitary main located in the west drive on the property is heavily corroded and could not be removed at the time of the inspection and therefore further evaluation of the sewer could not be performed. In order to be able to assess the sewer and perform any maintenance that may be needed, it is recommended that a qualified underground contractor or plumber remove the lid and examine the sewer.

III STRUCTURAL FRAME AND BUILDING ENVELOPE: Moisture related staining and damage was noted in the basement level on the walls of both of the stairwells and by the elevator. Corrosion and damage was observed on both of the metal doorframes on the access doors from the stairwells and on the metal framing inside the access panel area by the elevator. It appears there is moisture seeping into the stair wells and by the elevator and it is unknown if there are cracks or excessive hydrostatic pressure along the foundation. In order to further diagnose what is occurring it would be necessary to remove the wall coverings in these locations. In order to reduce the potential for continued moisture related damage, further evaluation and potential repairs by a qualified waterproofing/foundation repair contractor is recommended.

**NOTE:** Some of the moisture related damage in the NE corner stairwell may be related to leakage from the rear access door as extensive damage was noted on the doorframe and walls surrounding that door and moisture could be entering via a poorly sealed door as discussed in the "Fenestration System" section below.

was observed on the interior of the bank vault and seepage may be occurring along what appears to be a cold joint in the foundation and also through honeycombing in the concrete. Since this is a bank vault, there may have been more reinforcement than is installed in a normal foundation which can make it difficult to consolidate the concrete during pouring resulting in a porous wall. Also, if the concrete was not delivered and poured in a timely fashion, the newly placed concrete does not bond with the concrete beneath. The plans for the building can be reviewed to confirm the presence of the additional reinforcement and given the lack of inward movement on the wall it is doubtful that there are structural concerns, however, the leakage through the concrete is difficult to eliminate and typically requires the installation of an exterior membrane on the foundation wall and evaluation and repair by a qualified foundation repair contractor is recommended.

ISFABE-5 III STRUCTURAL FRAME AND BUILDING ENVELOPE: Efflorescent staining was observed on the NW column for the drive thru and moisture related damage was observed near several of the joints in the steel façade material on the top of the drive thru canopy. There is a large shelf on the façade that appears to be collecting water running down the face of the metal and directing it into specific locations on the canopy. In order to reduce the

potential for continued moisture related damage, it is recommended that a qualified metal fabricator and/or roofing contractor evaluate and repair the façade as needed

FISFABE-6 III STRUCTURAL FRAME AND BUILDING ENVELOPE: The masonry wall flashings are either missing or improperly installed. The flashings should be used in conjunction with stainless steel drip edge, should be 'end dammed' and should be present at the following locations: the top of the foundation wall; above the masonry pockets where the floor joists are set into the masonry wall; above and below every window, door and all lintels/beams. Missing or improperly installed wall flashing can allow moisture to enter the structure and cause rot, mold growth and structural damage. The exterior masonry walls of this structure should be evaluated and repaired by a qualified masonry contractor.

Here is a link to an article from the Mason Contractors of America Association that discusses proper masonry flashing: Masonry Wall Flashings

Here is a link to additional information from the National Concrete Masonry Association regarding flashing in masonry walls: Flashing Strategies for Concrete Masonry Walls

**NOTE:** While the cost to retrofit missing or improperly installed masonry wall flashings for the window and door lintels can vary significantly depending on the height of the work, the need for sidewalk canopies, proximity of overhead power lines, etc., a commonly quoted cost for such work is approximately \$225 per lineal foot.

ISFABE-7 III STRUCTURAL FRAME AND BUILDING ENVELOPE: Large open holes were noted on the masonry sign in front of the property. These openings create the potential for the entry of moisture that can damage the masonry via freeze/thaw damage. In order to reduce the potential for moisture related damage, it is recommended that a qualified masonry contractor evaluate and repair the sign as needed.

ISFABE-8 III STRUCTURAL FRAME AND BUILDING ENVELOPE: While the mortar joints at the corners of the stone window sills and between all limestone copings were in generally good condition, hairline cracks were noted in some corners. In order to reduce the risk of moisture saturation, moisture intrusion to the interior and damage to the brick masonry below the sills, the mortar in the joints should be raked out and sealed instead with a high-quality masonry caulking compound by a qualified masonry restoration contractor or handyman.

III STRUCTURAL FRAME AND BUILDING ENVELOPE: Cracking was noted in the masonry joints between dissimilar materials and corner joints on the structure. All dissimilar elements on the exterior walls of the structure such as: brick-to-stone; brick-to-concrete block; concrete block-to-glass block, all interior corners and all construction joints should be joined one to the other and sealed against moisture through the use of backer rod and urethane caulk or its equivalent. These elements have either differing coefficients of expansion and contraction in relation to temperature and moisture or are subject to movement which can lead to cracking of the cladding material and/or of the mortar joints. In order to reduce the potential for moisture related damage, the existing cement mortar joints should be ground out and replaced with the appropriate backer rod and ASTM approved caulking by a qualified masonry repair contractor.

This procedure is in keeping with the standards set forth by the Brick Industry Association. Further information is available at the following link: <u>Accommodating Expansion of Brickwork</u>

- **□ ISFABE-10 III STRUCTURAL FRAME AND BUILDING ENVELOPE:** The exterior masonry walls are in overall good condition, however, minor areas of deterioration and damage were noted. In order to reduce the potential for damaging and mold causing moisture to enter the home, the exterior walls should be evaluated and repaired by a qualified masonry restoration contractor.
- **□ ISFABE-11 III STRUCTURAL FRAME AND BUILDING ENVELOPE:** All exterior wall penetrations such as; piping, conduit, vent caps, etc. should be sealed against moisture intrusion, drafts, and energy losses through the use of the appropriate caulking methods and materials.
- **ISFABE-12 III STRUCTURAL FRAME AND BUILDING ENVELOPE:** The large steel lintel above the front entrance appears to be unpainted and corrosion was noted. In order to provide protection against corrosion and also for proper appearance it is recommended that all of the steel window and door lintels be finish painted with a coating specifically formulated for exterior metal applications. Ideally these lintels would have been painted prior to their installation and this painting should comply with the paint manufacturers specifications for application.
- **ISFABE-13 III STRUCTURAL FRAME AND BUILDING ENVELOPE:** Corrosion was noted around the lower portion of the rear exterior doorframe and moisture related damage and elevated humidity levels were noted in the walls adjacent to the door. It appears that the weatherstripping is missing in areas around the perimeter of the door which allows moisture to enter the gaps between the door and the doorframe. In order to reduce the potential for moisture related damage, It is recommended that a qualified handyman install appropriate weatherstripping around the perimeter of the door and the doorframe be repaired or replaced as needed.
- ISFABE-14 III STRUCTURAL FRAME AND BUILDING ENVELOPE: Gaps and openings were noted in the exterior corners of the aluminum window installations. Potential moisture related damage was observed on the interior of the windows and In order to reduce the potential for moisture related damage, it is recommended that a qualified window installation contractor evaluate and repair the windows as needed.
- III STRUCTURAL FRAME AND BUILDING ENVELOPE: The caulking at the corners of the capping where it meets the masonry are weathered and cracked. Exterior sealant performance is directly related to the joint preparation and application. For increased service life, performance and aesthetics, the exterior of the structure should be carefully examined and old deteriorated caulking should be removed and the exterior of the structure caulked via appropriate means and materials. Proper joint preparation and the use of compliant exterior rated sealants of good quality is recommended.

All caulk joints should then be inspected annually and be repaired as needed. **ALL** exterior wall penetrations such as: piping, conduit, vent caps, exterior light fixtures and receptacles should be sealed against moisture intrusion through the use of the appropriate caulking methods and materials. An intentional opening/gap at the base of electrical fixtures should

remain open to allow any moisture penetration an avenue of escape.

Several sources regarding caulking preparation can be found online, here is a link to one source: Caulking Basics

- **ISFABE-16 III STRUCTURAL FRAME AND BUILDING ENVELOPE:** The rubber seals on the Bilco roof hatch are more than likely nearing their life expectancy and while no moisture stains were present near the roof hatch at the time of the inspection, in order to reduce the potential for moisture related damage the seals should be replaced by a qualified roof hatch installation contractor.
- IMAES-1 IV MECHANICAL AND ELECTRICAL SYSTEMS: Older style gate valve shut-offs were noted on supplies to many of the plumbing fixtures in the structure and at least one was missing an operating handle. These supplies can be prone to leakage when operated and they were not opened or closed at the time of the inspection. In order to be able to shut off water to service plumbing fixtures in the future, the valves should be replaced with 1/4 turn ball valves by a qualified plumber.
- IMAES-3 IV MECHANICAL AND ELECTRICAL SYSTEMS: The hot water supplies for the dishwasher in the lower level break room and kitchen faucet are connected to the same shutoff valve. If the dishwasher is leaking or requires servicing, the supply for the dishwasher should be able to be isolated from the sink supply. In order for the occupants to have hot water at the kitchen sink while the dishwasher is being serviced or is out of commission, it is recommended that separate shut-off valves be installed by a qualified plumber.
- IMAES-5 IV MECHANICAL AND ELECTRICAL SYSTEMS: The soap dispenser storage containers were missing in most of the bathrooms and as a result the dispensers were non-operational at the time of the inspection. If use of these devices is desired, replacement of the containers is recommended.
- IMAES-6 IV MECHANICAL AND ELECTRICAL SYSTEMS: There is a water filtration system in use in the lower level break room for the coffee maker and fridge. The filters for this system require periodic replacement and in order to ensure the desired water quality, it is recommended that the manufacturers information with regards to the recommended schedule for filter replacement be reviewed.
- IMAES-7 IV MECHANICAL AND ELECTRICAL SYSTEMS: At least 75% of the toilets in the structure are not adequately secured to the floor. This can result in deformation of the wax ring seal, leaking and other damage. In order to determine if removal and reinstallation is necessary, all of the toilets in the structure should be evaluated by a licensed and competent plumber.

Also, the gap between the toilet base and tile floors should be sealed using the appropriate materials and methods in order to reduce a "fouling area". If mop water, bathtub water or a less pleasant "bathroom liquid" gets underneath the toilet, there is no way to clean it up. In order to reduce this risk and promote proper sanitation in the bathroom, caulking around the base of the toilet is recommended.

**™AES-8 IV MECHANICAL AND ELECTRICAL SYSTEMS:** Sump and waste ejector pumps have limited effective services lives that typically range between five to ten years. In order to

ensure effective drainage of the sump and/or waste pits and reduce the potential for flooding and moisture related damage, it is recommended that a qualified plumber evaluate the existing pump(s) and unless it is clear that the pump(s) have been serviced recently, replacement of the pump(s) is recommended.

IMAES-10 IV MECHANICAL AND ELECTRICAL SYSTEMS: Heavy corrosion was noted on many of the lavatory drain traps that could result in a leak. In order to reduce the potential for moisture related damage, the drain trap piping in every bathroom and kitchen sink should be replaced preemptively by a qualified plumber.

IMAES-12 IV MECHANICAL AND ELECTRICAL SYSTEMS: The switch for the food waste disposer is located beneath the kitchen sink. In order to reduce the potential for electric shock when using the disposal with wet hands and for the sake of convenience, the switch for the food waste disposer should be changed to an air activated switch located on the countertop near the sink housing.

Here is a link to information regarding this type of switch: Garbage Disposal Air Switch - What you Need to Know

IMAES-13 IV MECHANICAL AND ELECTRICAL SYSTEMS: Standing water was observed in one of the sinks in the ladies restroom in the upper level. In order to be able to use the sink, repair by a qualified plumber is recommended. Also, the sink in the lower level breakroom was slow to drain and it appears the grate was clogged with food particles and just needs to be cleaned to drain properly.

IMAES-14 IV MECHANICAL AND ELECTRICAL SYSTEMS: Connecting the dishwasher drain hose to the food waste disposer is prohibited by the Illinois State Plumbing Code and repair by a qualified plumber is recommended. Here is the applicable portion of the plumbing code:

Section 890.770 Dishwashing Machines

a) Domestic Dishwasher (Private Residence). When a domestic dishwashing machine drain line is connected to the house side of a trap from a sink, the drain from the dishwasher shall be carried up to the underside of the spill rim of the sink. Dishwashing machines shall discharge separately into a trap or tail piece of the kitchen sink and shall not connect to the food waste disposal unit.

IMAES-16 IV MECHANICAL AND ELECTRICAL SYSTEMS: The sump pit in the mechanical closets containing the boilers is unsealed. In order to reduce the risk for excess water vapor, radon gas, pests, etc.to enter the structure from the open sump pit, it is strongly recommended that a properly sealed sump pit cover be furnished and installed by a qualified contractor or handyman.

**NOTE:** Prior to sealing the sump pit it should be cleaned and the the pump equipment should be evaluated and serviced or replaced if needed. The typical service life of a sump pump is approximately 7 to 10 years and if no battery back-up system is present, it is advisable to install a moisture detection device above the pump and below the lid that may be able to provide an alert regarding an elevated water level that could occur in the event of pump failure.

MAES-22 IV MECHANICAL AND ELECTRICAL SYSTEMS: An open gap in the casing was observed on one of the air handlers in the mechanical room and significant air leakage was

occurring at the time of the inspection. A comprehensive evaluation of the HVAC system was not a part of this commercial inspection and in order to ensure the systems are operating properly, it is highly recommended that a thorough evaluation of the systems be conducted by a qualified HVAC service technician.

**NOTE:** The air handlers appear to be receiving fairly regular servicing, however, some older service dates were observed on some tags. Also, the schedules for the filter replacements should be determined.

- IMAES-24 IV MECHANICAL AND ELECTRICAL SYSTEMS: The deteriorated/missing insulation on the A/C refrigerant lines can result in energy losses that promote the formation of condensation. In order to reduce the potential for moisture related damage and to reduce energy losses and maximize efficiency, the insulation should be replaced by a qualified HVAC contractor.
- IMAES-30 IV MECHANICAL AND ELECTRICAL SYSTEMS: The receptacles in the lower level document storage area were secured to wall coverings that appear to have been removed because of flood damage. In order to reduce the potential for electric shock and fire, the receptacles should be secured by a qualified electrician when the wall coverings are replaced
- IMAES-31 IV MECHANICAL AND ELECTRICAL SYSTEMS: Several of the GFCI electrical receptacles were not functioning properly and will not provide protection from electrical shock as they are designed to do. All of the GFCI receptacles in the residence should be evaluated and replaced as needed by a qualified electrician
- IMAES-32 IV MECHANICAL AND ELECTRICAL SYSTEMS: Several of the light poles in the parking lot had corrosion and damage to the powder coat finish. In order to reduce the potential for continued moisture related damage, It is recommended that the corrosion be removed and the poles re-coated by a qualified painting specialist, possibly someone that can perform on-site powder coating.
- IMAES-33 IV MECHANICAL AND ELECTRICAL SYSTEMS: Corrosion and staining was observed on several exterior conduits by the drive-thru and the configuration of the pipes and possible non-weatherproofed pipe fittings may be allowing moisture to become trapped in the pipes. For proper operation of the electrical system fed by the conduits, repair by a qualified electrician is recommended.
- IMAES-34 IV MECHANICAL AND ELECTRICAL SYSTEMS: There may be missing and/or incomplete circuit directory for the electrical service panel/s. In order to allow for safe and efficient electrical circuit interruption when required for maintenance, repairs, or in emergencies, a complete and accurate electrical circuit directory should be provided to the buyer before closing.
- **™AES-35 IV MECHANICAL AND ELECTRICAL SYSTEMS:** A spot check of the battery operated emergency lighting system/s revealed one or more non-functioning units. It is strongly recommended that these critical life safety devices be regularly evaluated and repaired as needed by a qualified electrician.
- **™AES-36 IV MECHANICAL AND ELECTRICAL SYSTEMS:** Extinguished or otherwise inoperative luminaires (light bulbs) were noted during the inspection. All of the lighting in the

structure should be made fully operational for the final walk-through so that the proper operation of all the lighting can be verified and differentiated from defective switches, fixtures, etc.

**NOTE:** Some exterior fixtures may be controlled by photocells that will only allow the lights to operate at night and operation of all exterior fixtures should be verified at the final walk-through prior to closing.

- **▼ VCAI-1 VII COMMON AREAS (INTERIOR):** Sagging was observed on many of the partial ceiling tiles and it appears they lack support along the cut edges. For proper appearance the ceiling tiles should be evaluated and repaired or replaced as needed by a qualified ceiling tile installation contractor.
- **VCAI-2 VII COMMON AREAS (INTERIOR):** The damaged areas in the lower level document storage room that occurred as a result of leakage from a sump pump malfunction should be repaired by a qualified carpenter and/or drywall finishing contractor.
- VCAI-3 VII COMMON AREAS (INTERIOR): The interior finishes have some minor blemishes and in order for the interior to conform to accepted appearance standards, some repairs, refinishing, drywall touch ups and repainting may be needed.

Persistent cracks in common areas for cracking like above doors and windows should be repaired with a flexible repair material. Here is a link to information regarding one such product: Applying Krack Kote

- **▼ VCAI-5 VII COMMON AREAS (INTERIOR):** Several of the doors in the structure failed to close or latch properly. For proper operation it is recommended that any non-functional doors be repaired or adjusted by a qualified carpenter or handyman.
- VCAI-7 VII COMMON AREAS (INTERIOR): A concerted effort at air-sealing/fire-proofing all of the rooms in the structure should be made so that in the event of a fire in one of the rooms, smoke, carbon monoxide, and superheated gases are not able to readily pass between rooms. Some of the typical areas that require air-sealing/fire-proofing include: pipe chases (both vertical and horizontal).

## Recommended Maintenance Items

- IMAES-17 IV MECHANICAL AND ELECTRICAL SYSTEMS: FYI: Traps on floor drains without a continuous source of moisture can dry out and should be regularly monitored and re-filled with water as needed to prevent the migration of sewer gas into the home. The application of several drops of mineral oil can retard the evaporation of the water 'plug' in the floor drain trap.
- IMAES-20 IV MECHANICAL AND ELECTRICAL SYSTEMS: The circulating pump for the hot water heating system was covered with oil at the time of the inspection and oil was observed on the floor below the unit. It appears that the unit is being oiled too frequently which can reduce the performance of the pump and possibly result in binding of the unit. In order to reduce the potential for pre-mature failure of the pump, the oiling schedule should be adjusted and comply with the manufacturers specifications.

- IMAES-23 IV MECHANICAL AND ELECTRICAL SYSTEMS: Heavy dust build up was noted on numerous HVAC diffusers in the ceiling which limits the effectiveness of the air movement in the structure and places an added burden on the air handler blower motors. If order to achieve proper airflow and prolong the life of the HVAC equipment, the diffusers should be removed and cleaned and/or replaced as needed.
- IMAES-25 IV MECHANICAL AND ELECTRICAL SYSTEMS: The bathroom ventilation fan is clogged with dust. This affects it's ability to exhaust moisture and odors from the living space which, in turn, can lead to mold growth and moisture damage. A thorough cleaning of the vent cover and the accessible interior fan components is recommended.
- **VFP-1 V FIRE PROTECTION:** The structure has a fire suppression system that most likely has components that require annual inspections and/or servicing. In order to ensure proper operation of the fire suppression system, it is recommended that the buyer review the past service records and make arrangements for regular servicing.
- VFP-3 V FIRE PROTECTION: The fire alarm system in the structure was not tested at the time of the inspection and at least one broken indicator glass was broken on one of the alarm pulls. In order to ensure the system is operational, a qualified fire alarm technician should evaluate and test the system as needed.
- VFP-4 V FIRE PROTECTION: Fire extinguishers with expired tags were noted in the unoccupied areas of the structure. Typically these devices are inspected and potentially serviced annually and it is recommended that a qualified fire safety service technician evaluate and service all of the fire extinguishers in the structure as well as any other related devices like exit signs and/or emergency lighting.

## **Improves**

IMAES-2 IV MECHANICAL AND ELECTRICAL SYSTEMS: The refrigerator in the lower level break room has a copper water supply line that is flexible and easily damaged. For optimal resistance against leakage and water related damage to the surrounding finishes, the copper water supply tubing should be replaced with braided stainless steel tubing.

IMAES-18 IV MECHANICAL AND ELECTRICAL SYSTEMS: The corrosion and moisture staining on the water heater vent piping may be indicative of inadequate appliance venting that is most likely a result of excessive condensation from the improperly vented boiler/s. The water heater is well beyond the anticipated life expectancy for this type of unit and given the minimal demand for hot water in this structure, it may be possible to dramatically reduce the size of the water heater and possibly switch to an electric water heater that does not require venting when the water heater needs to be replaced. It is also possible to switch to small on-demand electric water heaters at the point of use that may be more cost effective than maintaining a constant tank of hot water and further research may be desired before choosing a replacement.

**NOTE:** When the water heater is replaced consideration should be given to installing an expansion tank. This feature can be critical for absorbing the pressure from water that expands as it is heated thereby prolonging the life by reducing the stress on the water heater

and other plumbing components.

VFP-2 V FIRE PROTECTION: Fire Safety Sprinkler Heads: The structure is equipped with fire safety sprinkler heads. Caution should be used by the tenants and their contractors, as to not falsely engage or trigger the system as water can be dispersed and continue to flow until Fire Department or Building Management personnel are dispatched and/or arrive to shut off the water flow from the main shut-off valve. In order to minimize the risk of excess moisture dispersion as well as ensure that all operating controls are functioning properly, the system and its operational controls should be fully explained and understood by the parties involved and it may also be possible to add protective cages.

#### Monitors

- IU-4 II UTILITIES: The main sewer pipe was televised as a part of this inspection and the report is available in the "Attachments" section of the report. The pipe that extends to the sanitary manhole in the western drive appears to have a separation immediately past the foundation. It's possible that the cast iron pipe that is most likely present cracked from settlement of the backfill around the structure after the building was completed. While the separation of the pipe appeared to be minimal and did not appear to be causing problems, open joints like this can allow surrounding soil to enter possibly resulting in a sinkhole and/or clogging of the manhole. If such a sinkhole develops it will be immediately adjacent to the building and the pipe will need to be repaired by a qualified underground contractor of plumber if that situation develops

## Due Diligences

- Q ISFABE-4 III STRUCTURAL FRAME AND BUILDING ENVELOPE: The framework for the structure was not readily visible but is believed to be a steel beam and girder support system with truss supported pans and poured concrete floors. Confirmation of the structures framing should be able to be confirmed through review of the building plans for the structure.
- Q IMAES-9 IV MECHANICAL AND ELECTRICAL SYSTEMS: There is a clean-out on the east side of the building and an attempt was made to televise the pipe and mud was encountered approximately 9 feet into the pipe. It is unknown what this pipe is connected to and the building plans (if available) should be reviewed in order to determine what purpose this pipe serves and whether it should be cleaned and/or serviced.

**NOTE:** In responses to a questionnaire submitted to the current owner as a part of the inspection, it was noted that the recent flooding that occurred in the building was from a back-up of the sump pump system. In order to determine if a blockage still exists, any relation of this pipe to the sump pump should be explored.

Q IMAES-11 IV MECHANICAL AND ELECTRICAL SYSTEMS: The structure has a battery back-up system for the sump pump. This system utilizes an internal battery that has a limited life-span and the effectiveness of the battery may diminish over time. Given that the age of the system is unknown, in order to reduce the potential for flooding from failure of the back-up system, it is recommended that the system be evaluated and potentially serviced by a qualified basement waterproofing contractor.

Q IMAES-37 IV MECHANICAL AND ELECTRICAL SYSTEMS: The evaluation of the low-voltage equipment in the structure: alarm, communication, audiovisual, etc., is beyond the scope of this commercial inspection and should be performed by qualified low-voltage electrical contractor/s. In order to reduce the potential for confusion and to reduce clutter around the structure, any wiring, panels, cabinets, etc. for any equipment that is no longer in use should be removed.

## **Future Projects**

ISFABE-17 III STRUCTURAL FRAME AND BUILDING ENVELOPE: The roof covering appeared to be in generally good condition, however, one small area of ponding was noted in the NE corner of the roof at the time of the inspection. There did not appear to be any signs leakage in the visible portions of the upper level ceilings at the time of the inspection. Ponding accelerates the rate of roof wear/deterioration and increases the risk for leaking. When a new roof covering is installed, plans should be made to re-pitch the roof using tapered roof insulation.

The roof is perceived to be a rubber roof membrane and there is most likely insulation beneath the roofing membrane. Typically a flat roof like this would have a lifespan of 40 to 50 years and if the structure was built in 1980, the replacement of the roof may need to be take into consideration in the not too distant future.

# The Full Report

## **GENERAL INFO**

#### General Info

**Number of buildings:** One Building **Building's Use:** Commercial, Offices **Age of Buildings:** Over 25 Years

**Construction Type:** Frame and Masonry

Number of Floors/stories: 2-story, With basement

Lot size: 2+Acre

**Approximate Building Size:** 7,000+ Square Feet **Net Rentable Area (NRA):** 14,000+ Square Feet

**Apparent Occupancy Status: 70%** 

Client is Present: No

Weather: Cloudy, Light rain Rain in Last Three Days: No

**Temperature:** Below 60 **Building Faces:** South

Radon Test: No Water Test: No

## I GENERAL PHYSICAL CONDITION

(1)

General Topography: Flat and sloped

Storm Water Drainage: Underground drains, Catch basin, Retention basin

**Access and Egress:** Paved driveway, City street **Paving Curbing Parking:** Asphalt parking lot

**Number of Parking Levels:** One **Number of Parking Spaces:** 64

## 1.0 Topography

 $\Re$  (IGPC-1) Note: The grounds are generally level around the building with positive drainage away from the structure, however, there is a sunken garden area on a portion of the front of the building where the water drains towards the structure. No excessive moisture or staining was noted in the lower level walls of the storage room adjacent to the sunken garden area at the time of the inspection.



Grading Sloping Away from Structure



Sunken Garden Area



Large Drain in Garden Area

## 1.1 Stormwater Drainage

(IGPC-2) Repair: The majority of the drainage is contained on site and is tributary to what appears to be a standing water retention basin on the front of the property. The retention basin has significant plant growth in and around the basin that appears to be clogging the inlet and outlet of the basin as they were not visible at the time of the inspection. This plant growth limits the effectiveness of the basin and may have undesirable species and in order to

maintain the proper operation of the basin, it is recommended that a landscape designer that specializes in retention basin design evaluate the basin. If undesirable species are present, a plan for cleaning and restoring the basin should be developed.

Here is a link to a publication that was prepared by the Wisconsin Department of Natural Resources that appears on the Lake County Illinois website that discusses plants for proper basin design: <u>Using natural landscaping for water quality & esthetics</u>



Basin Overflow Low Spot and Presumed Inlet and Outlet for Pond



Basin Full of Plant Growth



Possible Discharge Pipe in Manhole by Grand Ave



Standing Water in Inlet in Parking Lot

## 1.2 Access and Egress



## 1.3 Paving, Curbing and Parking

(IGPC-4) Repair: The asphalt paving is cracked and deteriorated and the open joints exacerbate further deterioration from moisture either saturating and softening the base or from freeze/thaw action in winter. In order to prolong the life of the asphalt the severely deteriorated portions should be removed and patched, minor cracks should be filled and the entire paved area should then be seal coated. Evaluation and repair by a qualified asphalt contractor is recommended.



Cracked Paving by Curb



Severely Deteriorated Asphalt Areas Noted



Large Hole in Apron by Grand Ave

(IGPC-5) Repair: The existing curb is in generally good condition, however, some portions are cracked and damaged and some areas do not drain completely which can contribute to the deterioration of the asphalt paving. In order to reduce the potential for moisture related damage to asphalt areas, damaged areas of curb and gutter should be replaced prior to any asphalt patching or seal-coating that may be considered.



Cracked Curb Sections



Curb Area by Inlet Holding Water



Damaged Curb by Handicapped Ramp

[IGPC-6] Repair: There are drop-offs behind the curb that create possible trip hazards and also leave the back of the curb unsupported and more prone to snowplow damage. In order to reduce the potential for injury and damage, it is recommended that a qualified landscaping contractor backfill the low areas adjacent to the curbs with topsoil and that the areas be restored with appropriate grass seed mix.

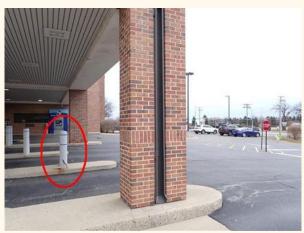


Drop-offs Behind Curbs



Unsupported Curb Backs

**□ (IGPC-7) Repair:** The plastic covering on one of the bollards by the drive-thru was cracked and the bollard beneath was heavily corroded. It is unknown if the plastic covering is accelerating the corrosion of the bollard or the bollard is corroding from exposure. In order to provide the intended protection for the drive-thru lanes, It is recommended that the corroded bollard be evaluated and repaired or replaced by a qualified concrete contractor and at least one covered bollard should be more closely examined in order to determine if there is a widespread problem.



Damaged and Corroded Bollard



Corroded Bollard in Drive-thru



Corrosion Noted Around Bases of Bollards

## 1.4 Flatwork (sidewalks, plazas, patios)

(IGPC-8) Repair: The exterior concrete walks have cracks which can allow moisture penetration that creates the potential for further damage from freeze/thaw cycles. In order to reduce the potential for moisture related damage, the cracks should be sealed by a qualified concrete repair contractor.



Cracks in Walks

**☐** (IGPC-9) Repair: Several of the sidewalk squares have settled and are sloping towards the building preventing those areas from draining. In order to reduce the potential for excess moisture to affect the foundation, it is recommended that either the settled slabs be replaced or it may be possible to lift the slabs through slabjacking.

It should be noted that while slabjacking costs considerably less than replacement, it may have temporary results and it is important to make sure that warranty options are explored from the contractor performing the work in case the slab re-settles.

Here is a link to information from a contractor regarding options for settled concrete: <u>Three Options for Repairing Sunken Concrete</u>

Here is a link to a site that has pros and cons of slabjacking: Pros and Cons of Mudjacking



Sidewalk Slopes Towards Building

(IGPC-10) Repair: There are drop-offs along the edges of the walk that create possible trip hazards. In order to reduce the potential for injury, it is recommended that a qualified landscaping contractor backfill the low areas adjacent to the walk with topsoil and that the areas be restored with appropriate grass seed mix.



Drop-offs Near Rear Entrance

## 1.5 Landscaping and Appurtenances

**THEOREM 1** (IGPC-11) Repair: Damage to the masonry walls surrounding the waste container storage were observed. The metal capping at the top of the masonry walls does not conform with industry standards as published by the Sheet-Metal and Air Conditioning Contractors National Association (SMACNA). The metal wall cap does not promptly shed moisture; does not have sleeved and gasketed overlaps; and is composed of relatively thin metal which will expand and contract significantly from temperature changes. These defects greatly increase the risk for moisture penetration into and through the underlying masonry walls. It is recommended that plans be made for the near-term replacement of the existing wall cap with one that reflects industry standards and best practices. As a part of the cap replacement, any cracked wall areas should be re-pointed and repaired as needed by a qualified masonry contractor.

Also, concrete slab that also surrounds the posts for the gates on the waste enclosure is badly cracked, especially around the posts which may affect the stability of the gates and the slab should be evaluated and repaired or replaced by a qualified concrete repair contractor.



Unsealed Corner Joints on Caps



Moisture Stains Below Cap Joint



Cracks Noted in Masonry Below Cap



Damage and Corrosion on Cap



whole span to little, and the span to little, and the



Kyner Coping



Cracked Areas by Posts



Cracked and Damaged Slab

(IGPC-12) Repair: The existing bushes, trees and landscaping installations are overgrown and/or dead and in need of trimming and/or removal. Also, some erosion is occurring on the more severe slopes and alternatives like groundcover rather than mulch may provide for more stable installations. For proper appearance of the property the vegetation in the exterior areas should be evaluated by a qualified arborist and/or landscaping contractor and be addressed as needed.



**Eroding Areas Around Trees** 



Trees with Significant Limb Loss



Decay and Disease on Trees



Large Split in Tree

**?** (IGPC-13) Repair: Nests for flying stinging pests were noted in several locations around the structure and in order to discourage further nest building, extreme care should be take to remove all old and active nests.

There are many ways to discourage these insects from establishing residences on your property, one way is to plant vegetation that repels bees and wasps.

Here is a link to an article with information regarding this practice: 10 plants that repel bees and wasps

Here is a link to an article that has additional information regarding natural insect repellents: 6 Ways to Keep Wasps Away From You



Numerous Nests Noted on Exterior of Structure



Numerous Nests Noted on Exterior of Structure

(IGPC-14) Repair: Several of the exterior signs had been displaced and may need to be reinstalled if their use is still desired.



Bent Signs on Property

**(IGPC-15) Repair:** It appears that an animal may have taken up residence under the rear sidewalk. In order to determine if an animal is present, it is recommended that the area be closely examined and if none is found, the entrance should be sealed with materials that would deter future burrowing.

Here is a link on how to identify various burrowing animals and potential remedies on how to deter their presence: How to Get Rid of Burrowing Animals in your Yard



Hole Beneath Rear Sidewalk

# **II UTILITIES**

Water Source: Public utility

**Electric Source:** Power company

Gas Supply: Natural gas

**Sanitary Sewer:** Public sewer system

**Storm Sewer:** Discharges into public sewer system

## 2.0 Water

 $\nearrow$  (IU-1) **Note:** The water source is the public utility company. The apparent shut off valve for the property is located on the south side of the structure by the front entrance.



Exterior Shut-off Valve Location



Valve Box Cover

## 2.1 Electricity

 $\nearrow$  (IU-2) **Note:** The source for electricity is the public utility company. The main electric shutoffs are located in the basement utility room near the HVAC systems, however, there are subpanels located in each office space that appear to control the electric features in those office spaces.



Exterior Transformer



Main Shut-off in Basement

## 2.2 Natural Gas

 $\nearrow$  (IU-3) Note: The fuel source is natural gas and is supplied by the public utility company. The meter and main shut-off is located on the rear of the building on the north side.



Natural Gas Supply and Shut-off

## 2.3 Sanitary Sewer

(IU-4) Monitor: The main sewer pipe was televised as a part of this inspection and the report is available in the "Attachments" section of the report. The pipe that extends to the sanitary manhole in the western drive appears to have a separation immediately past the foundation. It's possible that the cast iron pipe that is most likely present cracked from settlement of the backfill around the structure after the building was completed. While the separation of the pipe appeared to be minimal and did not appear to be causing problems, open joints like this can allow surrounding soil to enter possibly resulting in a sinkhole and/or clogging of the manhole. If such a sinkhole develops it will be immediately adjacent to the building and the pipe will need to be repaired by a qualified underground contractor of plumber if that situation develops



Pipe Separation on Sanitary Main

**(IU-5) Repair:** The manhole cover for the sanitary main located in the west drive on the property is heavily corroded and could not be removed at the time of the inspection and

therefore further evaluation of the sewer could not be performed. In order to be able to assess the sewer and perform any maintenance that may be needed, it is recommended that a qualified underground contractor or plumber remove the lid and examine the sewer.



Corroded Manhole Cover

 $\nearrow$  (IU-6) Note: Sanitary waste discharges into the municipal sewer at the street. There are massive ejector pumps in the basement that drain the waste into an overhead sewer which then drains into a manhole in the drive area along the west side of the structure.



*Ejector Pumps in Basement* 



Overhead Sewer Access and Location of Main to Exterior

## 2.4 Storm Sewer

 $\nearrow$  (IU-7) **Note:** The storm sewers on the property appeared to be functional, however there was standing water in the lowest basin that may be caused by blockage of the drainage outlets as discussed elsewhere in this report.



Storm Sewer Across West Drive



Manhole in Corner of Lot



Manhole By Street - Presumed Pipe From Pond



Standing Water in Manhole in Parking Lot



Storm Sewer From Manhole into Pond



Possible Pipe Location in Manhole by Street

# III STRUCTURAL FRAME AND BUILDING ENVELOPE

Foundation: Poured Concrete Walls

Method used to observe Crawlspace, Cellars or Basement: Walked

**Building Type:** Masonry brick

**Roof Type:** Flat

Roof Structure: Steel trusses

Method Used to Observe Attic: No attic present

**Exterior Entry Doors:** Steel, Insulated glass

**Window Types:** Thermal/insulated, Aluminum frame

**Siding Style:** Brick

Siding Material: Full brick

**Roof Covering:** Rubber membrane

Viewed Roof Covering from: Walked roof

#### 3.0 Foundation

(ISFABE-1) Repair: Moisture related staining and damage was noted in the basement level on the walls of both of the stairwells and by the elevator. Corrosion and damage was observed on both of the metal doorframes on the access doors from the stairwells and on the metal framing inside the access panel area by the elevator. It appears there is moisture seeping into the stair wells and by the elevator and it is unknown if there are cracks or excessive hydrostatic pressure along the foundation. In order to further diagnose what is occurring it would be necessary to remove the wall coverings in these locations. In order to reduce the potential for continued moisture related damage, further evaluation and potential repairs by a qualified waterproofing/foundation repair contractor is recommended.

**NOTE:** Some of the moisture related damage in the NE corner stairwell may be related to leakage from the rear access door as extensive damage was noted on the doorframe and walls surrounding that door and moisture could be entering via a poorly sealed door as discussed in the "Fenestration System" section below.



Moisture Stains and Damage by Lower Level Doors



Moisture Stains and Damage by Lower Level
Doors



Moisture Stains and Damage on Stairwell
Walls



Elevated Humidity Measured Well Above Floor



Elevated Humidity Measured in Areas with No Damage



Corrosion on First Floor Stair Landing in NE Corner Stairwell



Moisture Related Damage by Elevator



Corrosion on Framing by Elevator



Elevated Humidity in Wall Areas by Elevator



Mold-like Substance Noted in Wall Areas

(ISFABE-2) Repair: Moisture related staining was observed on the interior of the bank vault and seepage may be occurring along what appears to be a cold joint in the foundation and also through honeycombing in the concrete. Since this is a bank vault, there may have been more reinforcement than is installed in a normal foundation which can make it difficult to consolidate the concrete during pouring resulting in a porous wall. Also, if the concrete was not delivered and poured in a timely fashion, the newly placed concrete does not bond with the concrete beneath. The plans for the building can be reviewed to confirm the presence of the additional reinforcement and given the lack of inward movement on the wall it is doubtful that there are structural concerns, however, the leakage through the concrete is difficult to eliminate and typically requires the installation of an exterior membrane on the foundation wall and evaluation and repair by a qualified foundation repair contractor is recommended.



Bank Vault



Leakage Along Cold Joint



Leakage Through Honeycombed Area

 $\nearrow$  (ISFABE-3) Note: The foundation was not visible or accessible at the time of the inspection as most of the basement wall areas are finished and very little of the foundation was exposed near the surface and therefor could not be evaluated, however, there was no significant cracking, openings or gaps in the exterior walls and around the windows at the time of the inspection that would suggest significant settlement of the structure has occurred.



No Significant Cracking in Exterior Masonry Walls

## 3.1 Building Frame

Q (ISFABE-4) Due Diligence: The framework for the structure was not readily visible but is believed to be a steel beam and girder support system with truss supported pans and poured concrete floors. Confirmation of the structures framing should be able to be confirmed through review of the building plans for the structure.



Visible Pans and Trusses Between Floors

# 3.2 Façades or Curtain Wall (The principal face of the building)

(ISFABE-5) Repair: Efflorescent staining was observed on the NW column for the drive thru and moisture related damage was observed near several of the joints in the steel façade material on the top of the drive thru canopy. There is a large shelf on the façade that appears

to be collecting water running down the face of the metal and directing it into specific locations on the canopy. In order to reduce the potential for continued moisture related damage, it is recommended that a qualified metal fabricator and/or roofing contractor evaluate and repair the façade as needed



Efflorescent Stains on Column



Moisture Stains on Joint



Moisture Stains on Façade Shelf and Damaged Fascia Below

(ISFABE-6) Repair: The masonry wall flashings are either missing or improperly installed. The flashings should be used in conjunction with stainless steel drip edge, should be 'end dammed' and should be present at the following locations: the top of the foundation wall; above the masonry pockets where the floor joists are set into the masonry wall; above and below every window, door and all lintels/beams. Missing or improperly installed wall flashing can allow moisture to enter the structure and cause rot, mold growth and structural damage. The exterior masonry walls of this structure should be evaluated and repaired by a qualified masonry contractor.

Here is a link to an article from the Mason Contractors of America Association that discusses proper masonry flashing: <u>Masonry Wall Flashings</u>

Here is a link to additional information from the National Concrete Masonry Association regarding flashing in masonry walls: <u>Flashing Strategies for Concrete Masonry Walls</u>

**NOTE:** While the cost to retrofit missing or improperly installed masonry wall flashings for the window and door lintels can vary significantly depending on the height of the work, the need for sidewalk canopies, proximity of overhead power lines, etc., a commonly quoted cost for such work is approximately \$225 per lineal foot.



No Drip Edge Observed Above Windows



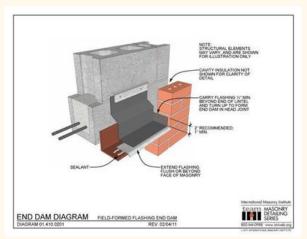
Moisture Stains and Damage Above Windows Noted



Potential Repaired Window Areas



Damage Noted Above Rear Entry Door



Masonry Wall Flashing Detail

(ISFABE-7) Repair: Large open holes were noted on the masonry sign in front of the property. These openings create the potential for the entry of moisture that can damage the masonry via freeze/thaw damage. In order to reduce the potential for moisture related damage, it is recommended that a qualified masonry contractor evaluate and repair the sign as needed.



Holes in Sign

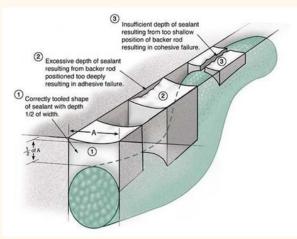
**T** (**ISFABE-8**) **Repair:** While the mortar joints at the corners of the stone window sills and between all limestone copings were in generally good condition, hairline cracks were noted in some corners. In order to reduce the risk of moisture saturation, moisture intrusion to the interior and damage to the brick masonry below the sills, the mortar in the joints should be raked out and sealed instead with a high-quality masonry caulking compound by a qualified masonry restoration contractor or handyman.



Mortar Joints in Corners of Stone Sills



Hairline Cracking Observed in Mortar Joints



Caulk Joint Detail

(ISFABE-9) Repair: Cracking was noted in the masonry joints between dissimilar materials and corner joints on the structure. All dissimilar elements on the exterior walls of the structure such as: brick-to-stone; brick-to-concrete block; concrete block-to-glass block, all interior corners and all construction joints should be joined one to the other and sealed against moisture through the use of backer rod and urethane caulk or its equivalent. These elements have either differing coefficients of expansion and contraction in relation to temperature and moisture or are subject to movement which can lead to cracking of the cladding material and/or of the mortar joints. In order to reduce the potential for moisture related damage, the existing cement mortar joints should be ground out and replaced with the appropriate backer rod and ASTM approved caulking by a qualified masonry repair contractor.

This procedure is in keeping with the standards set forth by the Brick Industry Association. Further information is available at the following link: <u>Accommodating Expansion of Brickwork</u>

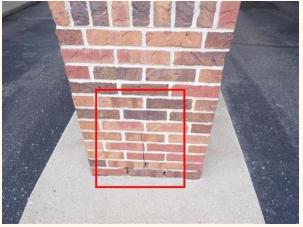


Hairline Cracks in Corner Masonry

(ISFABE-10) Repair: The exterior masonry walls are in overall good condition, however, minor areas of deterioration and damage were noted. In order to reduce the potential for damaging and mold causing moisture to enter the home, the exterior walls should be evaluated and repaired by a qualified masonry restoration contractor.



Cracks Below Capping on Roof



Cracks at Bottom of Drive-thru Pillar

(ISFABE-11) Repair: All exterior wall penetrations such as; piping, conduit, vent caps, etc. should be sealed against moisture intrusion, drafts, and energy losses through the use of the appropriate caulking methods and materials.



**Unsealed Receptacles** 



Unsealed Wall Penetration by Sprinkler Drain

(ISFABE-12) Repair: The large steel lintel above the front entrance appears to be unpainted and corrosion was noted. In order to provide protection against corrosion and also for proper appearance it is recommended that all of the steel window and door lintels be finish painted with a coating specifically formulated for exterior metal applications. Ideally these lintels would have been painted prior to their installation and this painting should comply with the paint manufacturers specifications for application.



Corrosion on Lintel

## 3.4 Fenestration System (i.e. windows, openings, doors, etc.)

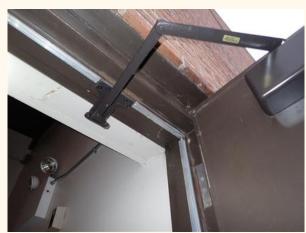
(ISFABE-13) Repair: Corrosion was noted around the lower portion of the rear exterior doorframe and moisture related damage and elevated humidity levels were noted in the walls adjacent to the door. It appears that the weatherstripping is missing in areas around the perimeter of the door which allows moisture to enter the gaps between the door and the doorframe. In order to reduce the potential for moisture related damage, It is recommended that a qualified handyman install appropriate weatherstripping around the perimeter of the door and the doorframe be repaired or replaced as needed.



Corrosion on Bottom of Doorframe



Gap in Weatherstripping Around Rear Entrance Door



Gap in Weatherstripping Around Rear Entrance Door



Corroded Doorframe on Rear Entry



Damaged Wall Finishes and Elevated Humidity Around Rear Entry Door



Corrosion in Metal Landing by Door

(ISFABE-14) Repair: Gaps and openings were noted in the exterior corners of the aluminum window installations. Potential moisture related damage was observed on the interior of the windows and In order to reduce the potential for moisture related damage, it is recommended that a qualified window installation contractor evaluate and repair the windows as needed.



**Unsealed Corners on Windows** 



Cracks and Gaps in Window Corners



Moisture Related Damage Noted in Corners of Windows

## 3.6 Roofing

(ISFABE-15) Repair: The caulking at the corners of the capping where it meets the masonry are weathered and cracked. Exterior sealant performance is directly related to the joint preparation and application. For increased service life, performance and aesthetics, the exterior of the structure should be carefully examined and old deteriorated caulking should be removed and the exterior of the structure caulked via appropriate means and materials. Proper joint preparation and the use of compliant exterior rated sealants of good quality is recommended.

All caulk joints should then be inspected annually and be repaired as needed. **ALL** exterior wall penetrations such as: piping, conduit, vent caps, exterior light fixtures and receptacles should be sealed against moisture intrusion through the use of the appropriate caulking methods and materials. An intentional opening/gap at the base of electrical fixtures should remain open to allow any moisture penetration an avenue of escape.

Several sources regarding caulking preparation can be found online, here is a link to one

source: Caulking Basics



Weathered and Cracked Caulking on Roof Flashing Joints

(ISFABE-16) Repair: The rubber seals on the Bilco roof hatch are more than likely nearing their life expectancy and while no moisture stains were present near the roof hatch at the time of the inspection, in order to reduce the potential for moisture related damage the seals should be replaced by a qualified roof hatch installation contractor.



Older Seals on Edges of Roof Hatch

(ISFABE-17) Future Project: The roof covering appeared to be in generally good condition, however, one small area of ponding was noted in the NE corner of the roof at the time of the inspection. There did not appear to be any signs leakage in the visible portions of the upper level ceilings at the time of the inspection. Ponding accelerates the rate of roof wear/ deterioration and increases the risk for leaking. When a new roof covering is installed, plans should be made to re-pitch the roof using tapered roof insulation.

The roof is perceived to be a rubber roof membrane and there is most likely insulation beneath the roofing membrane. Typically a flat roof like this would have a lifespan of 40 to 50

years and if the structure was built in 1980, the replacement of the roof may need to be take into consideration in the not too distant future.



Small Ponding Area on Roof

# IV MECHANICAL AND ELECTRICAL SYSTEMS

**Plumbing Water Supply (into building):** Ductile Iron, Not fully visible **Plumbing Water Distribution (inside building):** Copper, Not fully visible

Water Pressure and Flow: Adequate

Plumbing Waste: Cast iron, Not fully visible, PVC

**Water Heater Size and Power Source:** Gas Fired Water Heater, Natural Draft Exhaust **Water Heater Capacity:** 30 Gallon - No major hot water source needed - bathrooms and

breakroom sinks only

Water Heater Manufacturer: RHEEM

Water Heater Age: Unit was manufactured in 1990, Typical anticipated service life of water

heater is 13 years

Water Heater Location: Basement, Utility room, Venting connected to boiler venting

Heat Type: Circulating boiler, Hydronic, Copper Baseboard

Number of Heat Systems (excluding wood): Two

Age of Heating System: Unit was manufactured in 2011

**Energy Source for Heat:** Natural gas **BTU's / Watts:** 715,000 BTU's/boiler

**Heat System Brand: LAARS** 

**Ductwork:** Partially insulated, Sheet Metal

**Cooling Equipment Type:** Split System (Outside Condenser w/Inside Evaporator)

**Approximate Cooling Capacity (Tons):** 40 **Cooling Equipment Energy Source:** Electric

**Central Air Manufacturer:** TRANE **Number of A/C Only Units:** One

**Age of Condensing Units:** Unit was manufactured in 1990

**Electrical Service Conductors:** Copper

**Location of Main Service Disconnect:** Basement mechanical room

**Units individually metered (Electrical):** No

**Panel Capacity:** 1200 Amps **Panel Type:** Circuit breakers

**Electric Panel Manufacturer: SIEMENS** 

**Vertical Transportation Type:** One elevator cab

### 4.0 Plumbing Water Supply and Distribution Fixtures

[IMAES-1] Repair: Older style gate valve shut-offs were noted on supplies to many of the plumbing fixtures in the structure and at least one was missing an operating handle. These supplies can be prone to leakage when operated and they were not opened or closed at the time of the inspection. In order to be able to shut off water to service plumbing fixtures in the future, the valves should be replaced with 1/4 turn ball valves by a qualified plumber.



Gate Valves on Toilet Supplies



Missing Shut-off on Toilet Supply

(IMAES-2) Improve: The refrigerator in the lower level break room has a copper water supply line that is flexible and easily damaged. For optimal resistance against leakage and water related damage to the surrounding finishes, the copper water supply tubing should be replaced with braided stainless steel tubing.



Copper Water Supply on Refrigerator

**THEMPORES-3) Repair:** The hot water supplies for the dishwasher in the lower level break room and kitchen faucet are connected to the same shut-off valve. If the dishwasher is leaking or requires servicing, the supply for the dishwasher should be able to be isolated from the sink supply. In order for the occupants to have hot water at the kitchen sink while the dishwasher is being serviced or is out of commission, it is recommended that separate shut-off valves be installed by a qualified plumber.



Shared Sink Supply

(IMAES-4) Monitor: Incipient leakage staining was noted on the supply piping for at least one of the urinals, however no active leakage was noted at the time of the inspection. If active leakage is noted at some point in the future, repair by a qualified plumber is recommended.



Incipient Leakage on Urinal Supply Piping

(IMAES-5) Repair: The soap dispenser storage containers were missing in most of the bathrooms and as a result the dispensers were non-operational at the time of the inspection. If use of these devices is desired, replacement of the containers is recommended.



Non-functional Soap Dispensers



Missing Containers on Dispensers

[IMAES-6] Repair: There is a water filtration system in use in the lower level break room for the coffee maker and fridge. The filters for this system require periodic replacement and in order to ensure the desired water quality, it is recommended that the manufacturers information with regards to the recommended schedule for filter replacement be reviewed.



Filtration System in Basement Break Room

### 4.1 Plumbing Drain, Waste and Vent Systems

**T** (IMAES-7) Repair: At least 75% of the toilets in the structure are not adequately secured to the floor. This can result in deformation of the wax ring seal, leaking and other damage. In order to determine if removal and reinstallation is necessary, all of the toilets in the structure should be evaluated by a licensed and competent plumber.

Also, the gap between the toilet base and tile floors should be sealed using the appropriate materials and methods in order to reduce a "fouling area". If mop water, bathtub water or a less pleasant "bathroom liquid" gets underneath the toilet, there is no way to clean it up. In order to reduce this risk and promote proper sanitation in the bathroom, caulking around the base of the toilet is recommended.



Loose Toilets in Nearly Every Bathroom



**Unsealed Bases on Toilets** 

(IMAES-8) Repair: Sump and waste ejector pumps have limited effective services lives that typically range between five to ten years. In order to ensure effective drainage of the sump

and/or waste pits and reduce the potential for flooding and moisture related damage, it is recommended that a qualified plumber evaluate the existing pump(s) and unless it is clear that the pump(s) have been serviced recently, replacement of the pump(s) is recommended.



Unknown Age of Sump Pumps



Waste Ejector Pumps in Mechanical Room

Q (IMAES-9) Due Diligence: There is a clean-out on the east side of the building and an attempt was made to televise the pipe and mud was encountered approximately 9 feet into the pipe. It is unknown what this pipe is connected to and the building plans (if available) should be reviewed in order to determine what purpose this pipe serves and whether it should be cleaned and/or serviced.

**NOTE:** In responses to a questionnaire submitted to the current owner as a part of the inspection, it was noted that the recent flooding that occurred in the building was from a back-up of the sump pump system. In order to determine if a blockage still exists, any relation of this pipe to the sump pump should be explored.



Clean-out in Corner

[IMAES-10] Repair: Heavy corrosion was noted on many of the lavatory drain traps that could result in a leak. In order to reduce the potential for moisture related damage, the drain trap piping in every bathroom and kitchen sink should be replaced preemptively by a

#### qualified plumber.



Corrosion on Drain Trap Piping

Q (IMAES-11) Due Diligence: The structure has a battery back-up system for the sump pump. This system utilizes an internal battery that has a limited life-span and the effectiveness of the battery may diminish over time. Given that the age of the system is unknown, in order to reduce the potential for flooding from failure of the back-up system, it is recommended that the system be evaluated and potentially serviced by a qualified basement waterproofing contractor.



Battery Back-up System for Sump Pump



Back-up System Controllers



Label on Back-up System



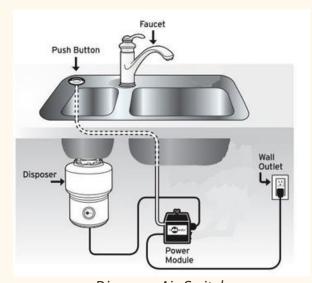
Batteries Inside Unit

[IMAES-12] Repair: The switch for the food waste disposer is located beneath the kitchen sink. In order to reduce the potential for electric shock when using the disposal with wet hands and for the sake of convenience, the switch for the food waste disposer should be changed to an air activated switch located on the countertop near the sink housing.

Here is a link to information regarding this type of switch: <u>Garbage Disposal Air Switch - What you Need to Know</u>



Switch for Disposer in Upper Level Kitchen



Disposer Air Switch

(IMAES-13) Repair: Standing water was observed in one of the sinks in the ladies restroom in the upper level. In order to be able to use the sink, repair by a qualified plumber is recommended. Also, the sink in the lower level breakroom was slow to drain and it appears the grate was clogged with food particles and just needs to be cleaned to drain properly.



Food Waste Clogging Drain



Standing Water in Sink

**T** (IMAES-14) Repair: Connecting the dishwasher drain hose to the food waste disposer is prohibited by the Illinois State Plumbing Code and repair by a qualified plumber is recommended. Here is the applicable portion of the plumbing code:

#### Section 890.770 Dishwashing Machines

a) Domestic Dishwasher (Private Residence). When a domestic dishwashing machine drain line is connected to the house side of a trap from a sink, the drain from the dishwasher shall be carried up to the underside of the spill rim of the sink. Dishwashing machines shall discharge separately into a trap or tail piece of the kitchen sink and shall not connect to the food waste disposal unit.



Dishwasher Connected to Food Waste Disposer

(IMAES-15) Monitor: Incipient leakage staining were noted on several areas of drain piping in the structure however no active leakage was noted at the time of the inspection. If active leakage is noted at some point in the future, repair by a qualified plumber is recommended.



Leakage Stains on Pipe in Ceiling of Elevator Mechanical Closet



Stains on Panel Below Piping



No Moisture by Wall Stain Below Pipe



Stains on Ceiling Tile in Former Mail Room



Stains on Piping Above Stained Tiles

(IMAES-16) Repair: The sump pit in the mechanical closets containing the boilers is unsealed. In order to reduce the risk for excess water vapor, radon gas, pests, etc.to enter the structure from the open sump pit, it is strongly recommended that a properly sealed sump pit cover be furnished and installed by a qualified contractor or handyman.

**NOTE:** Prior to sealing the sump pit it should be cleaned and the the pump equipment should be evaluated and serviced or replaced if needed. The typical service life of a sump pump is approximately 7 to 10 years and if no battery back-up system is present, it is advisable to install a moisture detection device above the pump and below the lid that may be able to provide an alert regarding an elevated water level that could occur in the event of pump failure.



Unsealed Sump Pit



Sump Cover

**(IMAES-17) Recommended Maintenance: FYI:** Traps on floor drains without a continuous source of moisture can dry out and should be regularly monitored and re-filled with water as needed to prevent the migration of sewer gas into the home. **The application of several drops of mineral oil can retard the evaporation of the water 'plug' in the floor drain trap.** 



Open Floor Drains in Every Bathroom

(IMAES-18) Improve: The corrosion and moisture staining on the water heater vent piping may be indicative of inadequate appliance venting that is most likely a result of excessive condensation from the improperly vented boiler/s. The water heater is well beyond the anticipated life expectancy for this type of unit and given the minimal demand for hot water in this structure, it may be possible to dramatically reduce the size of the water heater and possibly switch to an electric water heater that does not require venting when the water heater needs to be replaced. It is also possible to switch to small on-demand electric water heaters at the point of use that may be more cost effective than maintaining a constant tank of hot water and further research may be desired before choosing a replacement.

NOTE: When the water heater is replaced consideration should be given to installing an expansion tank. This feature can be critical for absorbing the pressure from water that expands as it is heated thereby prolonging the life by reducing the stress on the water heater and other plumbing components.



Corrosion and Staining on Water Heater



Displaced Cover on Burner and Corrosion on Unit



Expansion Tank Needed on Water Heater



Water Heater Expansion Tank

⚠ (IMAES-19) Major Concern: Corrosion and moisture related staining was noted on the vent pipe for the boilers both on the roof and in the mechanical closet and was excessively present on one of the two boilers. The massive boilers in the basement appear to have insufficient access to combustion/dilution air which can reduce the ability for the boilers to vent properly resulting in the formation of condensation in the vent piping. These boilers were installed in 2011 which suggests that the existing boilers were only in service for 21 years. Cast iron boilers can last for more than 35 years if maintained properly and in order to reduce the risk of equipment damage, inefficient combustion and infiltration of carbon monoxide into the structure, a controlled intake ventilation damper system that draws intake air from the outside of the structure should be installed by a qualified HVAC or mechanical contractor.

Also, as a part of the transfer of ownership of the property all of the HVAC equipment should be cleaned, serviced and certified as properly operational by a qualified mechanical contractor.



Moisture Stains Around Boiler Vent Pipe



Corrosion on Boiler



Corrosion and Open Holes on Vent Pipe



Staining and Corrosion on Top of Boiler



Moisture Stains and Corrosion on Vent Pipe



Corrosion and Staining by Water Heater Vent

(IMAES-20) Recommended Maintenance: The circulating pump for the hot water heating system was covered with oil at the time of the inspection and oil was observed on the floor below the unit. It appears that the unit is being oiled too frequently which can reduce the performance of the pump and possibly result in binding of the unit. In order to reduce the potential for pre-mature failure of the pump, the oiling schedule should be adjusted and comply with the manufacturers specifications.



Excessive Oil on Circulating Pump

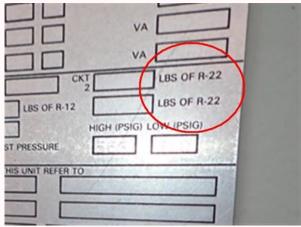


Oil on Floor Below Pump

### 4.4 Air Conditioning and Ventilation

⚠ (IMAES-21) Major Concern: The A/C condenser is well beyond the end of the expected service life and although the system was not tested at the time of the inspection, cooling levels may be inadequate in the near future. The R-22 refrigerant that is used in the unit is being phased out and no new or imported R-22 is allowed in the U.S. and technicians will only be able to use recycled, reclaimed, or previously produced R-22 to service equipment. Therefore it will become more expensive to service the unit in the future.

The cost to retrofit the HVAC system to use the new R-410 A replacement refrigerant is expensive and involves replacing the evaporator coils in the air handling unit.



R-22 Refrigerant Used in AC Condenser



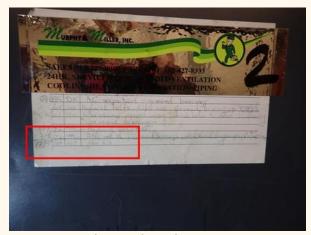
Large Older Condensing Unit

(IMAES-22) Repair: An open gap in the casing was observed on one of the air handlers in the mechanical room and significant air leakage was occurring at the time of the inspection. A comprehensive evaluation of the HVAC system was not a part of this commercial inspection and in order to ensure the systems are operating properly, it is highly recommended that a thorough evaluation of the systems be conducted by a qualified HVAC service technician.

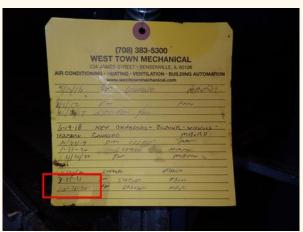
**NOTE:** The air handlers appear to be receiving fairly regular servicing, however, some older service dates were observed on some tags. Also, the schedules for the filter replacements should be determined.



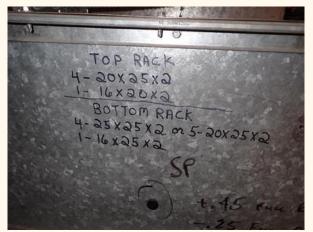
Open Gap on Air Handler



Belts Replaced in 2004?



Tags Noting Servicing in 2021



Filters in Unit



Leakage by Evaporator Coil Casing Penetrations



Grease Build-up on Bearings



One of Two Air Handlers in Mechanical

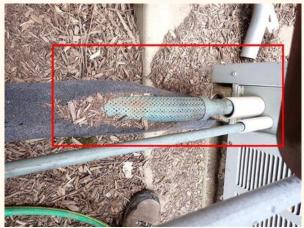
(IMAES-23) Recommended Maintenance: Heavy dust build up was noted on numerous HVAC diffusers in the ceiling which limits the effectiveness of the air movement in the structure and places an added burden on the air handler blower motors. If order to achieve proper airflow and prolong the life of the HVAC equipment, the diffusers should be removed

and cleaned and/or replaced as needed.



Heavy Dust Build-up on Diffusers

(IMAES-24) Repair: The deteriorated/missing insulation on the A/C refrigerant lines can result in energy losses that promote the formation of condensation. In order to reduce the potential for moisture related damage and to reduce energy losses and maximize efficiency, the insulation should be replaced by a qualified HVAC contractor.



Insulation Missing on Refrigerant Lines

(IMAES-25) Recommended Maintenance: The bathroom ventilation fan is clogged with dust. This affects it's ability to exhaust moisture and odors from the living space which, in turn, can lead to mold growth and moisture damage. A thorough cleaning of the vent cover and the accessible interior fan components is recommended.



Clogged Vent Fan in Upper Level Bathroom

#### 4.5 Electric Service and Meter

 $\nearrow$  (IMAES-26) Note: FYI - The main shut-off for the structure is located in the mechanical closet in the basement.



Main Service Panel

### 4.6 Electric Distribution

⚠ (IMAES-27) Major Concern: Live abandoned electrical wiring was found in at least one location and in order to reduce the risk for electrical shock and fire, all of the abandoned wiring in the structure should be located and removed or capped off and enclosed inside metal junction boxes by a qualified electrician.



Live Wiring by Former Mail Chute

⚠ (IMAES-28) Major Concern: Exposed wiring was observed on the north side of the masonry sign in front of the structure. In order to reduce the risk for electrical shock from inadvertent contact with exposed current carrying equipment and in order to contain molten copper created by high temperature arcing and sparking of energized wiring, it is recommended that all electrical connections be concealed inside covered metal junction boxes by a qualified electrician.



Open Hole on Sign



Exposed Wiring in Sign

(IMAES-29) Note: Moisture related staining and damage was noted in a document storage room in the lower level in the southeast corner of the building. The lower 2 feet of drywall in the room has been removed and corrosion was observed on some of the steel wall framing in the room. It appears that moisture had entered the room via a conduit from the external electrical transformer and according to an answer in the questionnaire that was send to the current owner, the flooding occurred as a result of localized flooding from a sump pump back-up. In order to reduce the potential for moisture related damage and to prevent colder external air from entering the building and condensing on warmer interior piping, the feeder conduits from the transformer should be sealed by a qualified electrician.



Transformer on East Side of Structure





Drywall Removed



Leakage Stains on Junction Box in Ceiling



Leakage Stains on Walls



Corrosion on Feeder Conduit



Corrosion on Ceiling Grid



Moisture Stains on Cabinet Below



Corrosion on Conduits Connected to Junction Box

(IMAES-30) Repair: The receptacles in the lower level document storage area were secured to wall coverings that appear to have been removed because of flood damage. In order to reduce the potential for electric shock and fire, the receptacles should be secured by a qualified electrician when the wall coverings are replaced

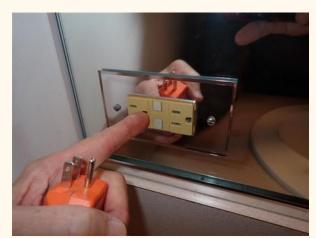


Loose Receptacles in Document Storage Room

(IMAES-31) Repair: Several of the GFCI electrical receptacles were not functioning properly and will not provide protection from electrical shock as they are designed to do. All of the GFCI receptacles in the residence should be evaluated and replaced as needed by a qualified electrician



Non-GFCI Receptacles on Exterior of Structure



Non-functional GFCI Receptacle in Bathroom

**THEOREM :** Several of the light poles in the parking lot had corrosion and damage to the powder coat finish. In order to reduce the potential for continued moisture related damage, It is recommended that the corrosion be removed and the poles re-coated by a qualified painting specialist, possibly someone that can perform on-site powder coating.



Corrosion on Light Pole Base



Corrosion on Light Pole

(IMAES-33) Repair: Corrosion and staining was observed on several exterior conduits by the drive-thru and the configuration of the pipes and possible non-weatherproofed pipe fittings may be allowing moisture to become trapped in the pipes. For proper operation of the electrical system fed by the conduits, repair by a qualified electrician is recommended.



Corrosion on Conduits

(IMAES-34) Repair: There may be missing and/or incomplete circuit directory for the electrical service panel/s. In order to allow for safe and efficient electrical circuit interruption when required for maintenance, repairs, or in emergencies, a complete and accurate electrical circuit directory should be provided to the buyer before closing.



Numerous Changes Made on Some Directories



Unlabeled Circuits on Main Shut-off

(IMAES-35) Repair: A spot check of the battery operated emergency lighting system/s revealed one or more non-functioning units. It is strongly recommended that these critical life safety devices be regularly evaluated and repaired as needed by a qualified electrician.



Non-functional Emergency Lighting in Former Unoccupied Mail Area

(IMAES-36) Repair: Extinguished or otherwise inoperative luminaires (light bulbs) were noted during the inspection. All of the lighting in the structure should be made fully operational for the final walk-through so that the proper operation of all the lighting can be verified and differentiated from defective switches, fixtures, etc.

**NOTE:** Some exterior fixtures may be controlled by photocells that will only allow the lights to operate at night and operation of all exterior fixtures should be verified at the final walk-through prior to closing.



Extinguished Bulbs on Exterior



Extinguished Bulb on Exterior Wall



Extinguished Bulbs in Bathrooms



Extinguished Bulb on Exterior



Extinguished Light by Rear Entrance



Extinguished Bulbs on Wall Fixtures

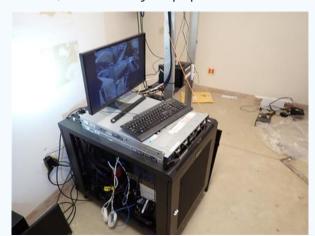


Extinguished Bulb in Light Fixture



Extinguished Bulbs in Upper Level Bathrooms

Q (IMAES-37) Due Diligence: The evaluation of the low-voltage equipment in the structure: alarm, communication, audiovisual, etc., is beyond the scope of this commercial inspection and should be performed by qualified low-voltage electrical contractor/s. In order to reduce the potential for confusion and to reduce clutter around the structure, any wiring, panels, cabinets, etc. for any equipment that is no longer in use should be removed.



Low Voltage Surveillance Equipment



Low Voltage Communication Equipment



Loose Cover on Communication Pedestal in Front of Property



Low Voltage Surveillance Equipment



Low Voltage Alarm System



Low Voltage Communication Equipment



Low Voltage Communication Equipment



Low Voltage Communication Equipment



Low Voltage Alarm System



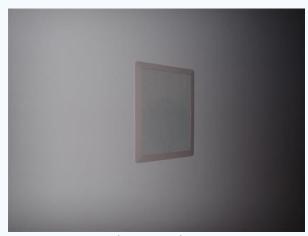
Low Voltage Communication Wiring



Low Voltage A/V Equipment



Low Voltage Communication Equipment



Low Voltage Audio System



Low Voltage Alarm System



Low Voltage Communication Equipment



Low Voltage Communication Equipment



Low Voltage Communication Equipment

# 4.7 Vertical Transportation (Elevators and Escalators)

 $\nearrow$  (IMAES-38) Note: Elevator inspections require highly specialized expertise and are outside the scope of this commercial inspection. However it was noted that one of the oil supply lines for the elevator was leaking into a ceiling tile near the elevator and it appears that repairs were performed on this unit in 2012.



Elevator in Structure



Potential Recent Service History



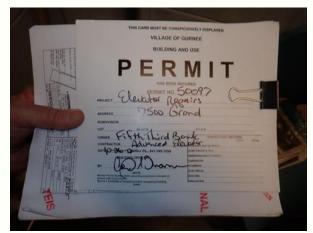
Oil Observed on Pipe by Elevator



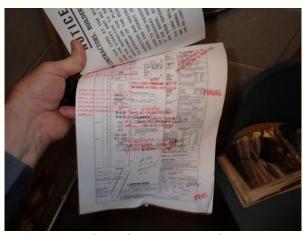
Elevator Mechanical Unit



Stained Ceiling Tile by Elevator



Permit for 2012 Work



Plans for 2012 Work

# **V FIRE PROTECTION**

**Sprinkler System:** Yes wet (pressurized)

**Standpipes:** Yes wet (pressurized) **Fire Hydrant:** Yes on property

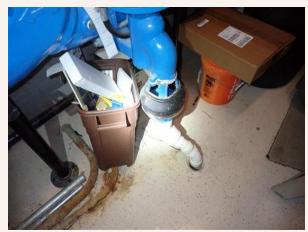
Fire Alarm System: Yes, but did not test for operation

# 5.0 Sprinklers and Standpipes

**(VFP-1) Recommended Maintenance:** The structure has a fire suppression system that most likely has components that require annual inspections and/or servicing. In order to ensure proper operation of the fire suppression system, it is recommended that the buyer review the past service records and make arrangements for regular servicing.



Service Tag Shows Recent Servicing



Drain for Fire System



Unknown Deteriorated Components Replaced

(VFP-2) Improve: Fire Safety Sprinkler Heads: The structure is equipped with fire safety sprinkler heads. Caution should be used by the tenants and their contractors, as to not falsely engage or trigger the system as water can be dispersed and continue to flow until Fire Department or Building Management personnel are dispatched and/or arrive to shut off the water flow from the main shut-off valve. In order to minimize the risk of excess moisture dispersion as well as ensure that all operating controls are functioning properly, the system and its operational controls should be fully explained and understood by the parties involved and it may also be possible to add protective cages.



Fire Sprinkler Safety Heads Throughout Structure

# 5.1 Alarm Systems

**(VFP-3) Recommended Maintenance:** The fire alarm system in the structure was not tested at the time of the inspection and at least one broken indicator glass was broken on one of the alarm pulls. In order to ensure the system is operational, a qualified fire alarm technician should evaluate and test the system as needed.



Fire Alarm System in Structure



Missing Glass Indicator on Alarm Pull



Fire Alarm System



Fire Alarm System

### 5.3 Fire Extinguishers

**(VFP-4) Recommended Maintenance:** Fire extinguishers with expired tags were noted in the unoccupied areas of the structure. Typically these devices are inspected and potentially serviced annually and it is recommended that a qualified fire safety service technician evaluate and service all of the fire extinguishers in the structure as well as any other related devices like exit signs and/or emergency lighting.



Expired Extinguishers



Stored Extinguishers in Bank Vault

# VI INTERIOR ELEMENTS (TENANTS)

**Ceiling Materials:** Drywall, Ceiling Tile

Wall Material: Drywall

Floor Covering: Carpet Interior Doors: Hollow core

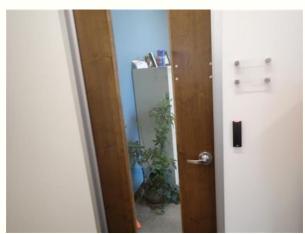
**Window Types:** Aluminum Frame, Thermal/Insulated

# 6.0 Ceilings, Walls and Floors

 $\nearrow$  (VIET-1) Note: Access to many of the tenant areas was not available at the time of the inspection, it can be presumed that many of the conditions observed in the common areas are present in the tenant spaces as well.



No Access to Bank Areas



No Access to Insurance Office



No Access to Tax Office

# VII COMMON AREAS (INTERIOR)

Ceiling Materials: Drywall, Ceiling Tile

Wall Material: Drywall

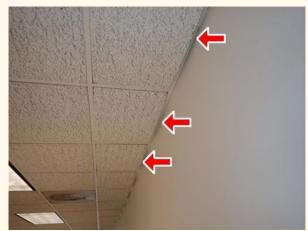
Floor Covering(s): Carpet, Tile

**Interior Doors:** Wood

**Window Types:** Aluminum Frame, Fixed Sash, Thermal/Insulated

### 7.0 Ceilings, Walls and Floors

**(VCAI-1) Repair:** Sagging was observed on many of the partial ceiling tiles and it appears they lack support along the cut edges. For proper appearance the ceiling tiles should be evaluated and repaired or replaced as needed by a qualified ceiling tile installation contractor.



Sags in Ceiling Tiles

**(VCAI-2) Repair:** The damaged areas in the lower level document storage room that occurred as a result of leakage from a sump pump malfunction should be repaired by a qualified carpenter and/or drywall finishing contractor.



Walls Removed in Storage Area



Damaged Ceiling Tile System

**(VCAI-3) Repair:** The interior finishes have some minor blemishes and in order for the interior to conform to accepted appearance standards, some repairs, re-finishing, drywall touch ups and repainting may be needed.

Persistent cracks in common areas for cracking like above doors and windows should be repaired with a flexible repair material. Here is a link to information regarding one such product: Applying Krack Kote



Stains and Warped Tile in Bathroom Tiles

Below Urinal



Damaged Radiator Cover



Stains on Window Ledges



Missing Cap on Toilet Seat



Water Stains on Window Sills from Plants



Paint Missing on Walls

 $\nearrow$  (VCAI-4) Note: The amount of stored items present in some areas prevented a full

inspection of flooring/walls/etc. The inspector can return after move-out is complete, if requested, for further review of any areas that could not viewed.



Stored Items in Rooms



Stored Items in Areas

### 7.1 Windows and Doors

**(VCAI-5) Repair:** Several of the doors in the structure failed to close or latch properly. For proper operation it is recommended that any non-functional doors be repaired or adjusted by a qualified carpenter or handyman.



Loose Lock Mechanism on Basement Closet



Hole by Lock Mechansim

## 7.2 Building Amenities or Special Features (if any) (i.e. spas, fountains, restaurants, etc.)

 $\nearrow$  (VCAI-6) Note: Vending machines were noted in the basement. These units belong to an outside vendor and according to the property owner their removal is imminent.



Unplugged Vending Machines in Basement

### 7.3 Insulation

**(VCAI-7) Repair:** A concerted effort at air-sealing/fire-proofing all of the rooms in the structure should be made so that in the event of a fire in one of the rooms, smoke, carbon monoxide, and superheated gases are not able to readily pass between rooms. Some of the typical areas that require air-sealing/fire-proofing include: pipe chases (both vertical and horizontal).



Holes in Walls of Server Room



Holes in Wall of Server Room

# VIII ADDITIONAL CONSIDERATIONS

8.0 Document Review and Interviews

⟨VAC-1⟩ Note: ZONING ASSESSMENT - A phone interview was conducted on 1/01/21 with
 the zoning administrator of the Village. They confirmed that the property is zoned C-2 which
 is designated as a Community Commercial District. They indicated that the use of the
 property for the requested use is permitted for this this land classification. If any further
 information is needed from the zoning department, they can be reached at their office
 number.

For reference and information, a copy of the zoning ordnance has been attached to this report and can be found in the "Attachments" section via the "Table of Contents"

 $\nearrow$  (VAC-2) Note: GENERAL PUBLIC RECORDS INQUIRY - A freedom of information act request was filed on 1/01/21 with the Village for any information regarding the following:

- Building Code Violations
- Building Permits
- Certificates of Occupancy
- Code Enforcement Violations
- Site Plans
- Presence and frequency of any regular inspections that may be performed by the Village

All requested items were provided and are attached and can be found in the "Attachments" section via the "Table of Contents"

 $\nearrow$  (VAC-3) Note: FIRE DEPARTMENT INQUIRY - A freedom of information act request was filed on 1/01/21 with the Village for any information regarding the following:

- Dates and results of any Fire Department investigations that have been performed
- Frequency of any inspections are conducted
- Outstanding fire code violations
- Call history on the property

All requested items were provided and are attached and can be found in the "Attachments" section via the "Table of Contents"

 $\nearrow$  **(VAC-4) Note: INSPECTION QUESTIONNAIRE -** A questionnaire of items relative to the inspection was prepared after the inspection and was submitted to the current property owners. For reference and information, a copy of the questionnaire and the responses has been attached to this report and can be found in the "Attachments" section via the "Table of Contents"

(VAC-5) Note: Activity Exclusions—The activities listed below generally are excluded from or otherwise represent limitations to the scope of a PCA prepared in accordance with this guide. These should not be construed as all-inclusive or imply that any exclusion not specifically identified is a PCA requirement under this guide. Removing or relocating materials, furniture, storage containers, personal effects, debris material or finishes; conducting exploratory probing or testing; dismantling or operation. This should include material life-safety/building code violations. ing of equipment or appliances; or disturbing personal items or property, that obstructs access or visibility. Preparing engineering calculations (civil, structural, mechanical, electrical, etc.) to determine any system's, component's, or equipment's adequacy or compliance with any specific or commonly accepted design requirements or building codes, or preparing designs or specifications to remedy any physical deficiency. Taking measurements or quantities to establish or confirm any information or representations provided by the owner or user, such as size and dimensions of the subject property or subject building; any legal encumbrances, such as easements; dwelling unit count and mix; building property line setbacks or elevations; number and size of parking spaces; etc. Reporting on the presence or absence of pests such as wood damaging organisms, rodents, or insects unless evidence of such presence is readily apparent during the course of the field observer's walk-through survey or such information is provided to the consultant by the owner, user, property manager, etc. The consultant is not required to provide a suggested remedy for treatment or remediation, determine the extent of infestation, nor provide opinions of probable costs for treatment or remediation of any deterioration that may have resulted. Reporting on the condition of subterranean conditions, such as underground utilities, separate sewage disposal systems, wells; systems that are either considered process related or peculiar to a specific tenancy or use; wastewater treatment plants; or items or systems that are not permanently installed. Entering or accessing any area of the premises deemed to pose a threat of dangerous or adverse conditions with respect to the field observer or to perform any procedure, that may damage or impair the physical integrity of the property, any system, or component. Providing an opinion on the condition of any system or component, that is shutdown, or whose operation by the field observer may increase significantly the registered electrical demand-load; however, the consultant is to provide an opinion of its physical condition to the extent reasonably possible considering its age, obvious condition, manufacturer, etc. Evaluating acoustical or insulating characteristics of systems or components. Providing an opinion on matters regarding security of the subject property and protection of its occupants or users from unauthorized access. Operating or witnessing the operation of lighting or other systems typically controlled by time clocks or that are normally operated by the building's operation staff or service companies. Providing an environmental assessment or opinion on the presence of any environmental issues such as asbestos, hazardous wastes, toxic materials, the location and presence of designated wetlands, IAQ, etc.

Warranty, Guarantee, and Code Compliance Exclusions: By conducting a PCA and preparing a PCR, the consultant merely is providing an opinion and does not warrant or guarantee the present or future condition of the subject property, nor may the PCA be construed as either a warranty or guarantee of any of the following: Any system's or component's physical condition or use, nor is a PCA to be construed as substituting for any system's or equipment's warranty transfer inspection; Compliance with any federal, state, or local statute, ordinance, rule or regulation including, but not limited to, building codes, safety codes, environmental regulations, health codes or zoning ordinances or compliance with trade/design standards or

the standards developed by the insurance industry; however, should there be any conspicuous material present violations observed or reported based upon actual knowledge of the field observer or the PCR reviewer, they should be identified in the PCR; Compliance of any material, equipment, or system with any certification or actuation rate program, vendor's or manufacturer's warranty provisions, or provisions established by any standards that are related to insurance industry acceptance/approval, such as FM, State Board of Fire Underwriters, etc. *Additional/General Considerations: Further Inquiry:* There may be physical condition issues or certain physical improvements at the subject property that the parties may wish to assess in connection with a commercial real estate transaction that are outside the scope of this guide. Such issues are referred to as non-scope considerations and if included in the PCR, should be identified.

**Out of Scope Considerations:** Whether or not a user elects to inquire into non-scope considerations in connection with this guide is a decision to be made by the user. No assessment of such non-scope considerations is required for a PCA to be conducted in compliance with this guide.

**Other Standards:** There may be standards or protocols for the discovery or assessment of physical deficiencies associated with non-scope considerations developed by government entities, professional organizations, or private entities, or a combination thereof. **Additional Issues:** No implication is intended as to the relative importance of inquiry into such non-scope considerations, and this list of non-scope considerations is not intended to be all-inclusive: Seismic Considerations, Design Consideration for Natural Disasters (Hurricanes, Tornadoes, High Winds, Floods, Snow, etc.), Insect/Rodent Infestation, Environmental Considerations, ADA Requirements, FFHA Requirements, Indoor Air Quality, and Property Security Systems.

## 8.3 Exhibits (See attached, if any)

⟨VAC-6⟩ Note: FEMA FLOODPLAIN EVALUATION - The floodplain surrounding the subject property was evaluated and the property was found not to be affected by any floodplain. A copy of the FIRMETTE panel from FEMA is attached can be found in the "Attachments" section via the "Table of Contents"



Floodplain Image

## 8.4 Opinions of Probable Costs to Remedy Physical Deficiencies

⟨VAC-7⟩ Note: OPINION OF PROBABLE COST - An opinion of probable costs was prepared in an Excel spreadsheet format. For reference and information, a copy of the spreadsheet has been attached to this report and can be found in the "Attachments" section via the "Table of Contents"

# IX TEAM MEMBER QUALIFICATIONS

9.0 Domicile Owner & Inspector

🖈 (ITMQ-1) Note:

**MARK HUGHES** 

### **SUMMARY OF EXPERIENCE AND QUALIFICATIONS**

Mark began his career working for over 10 years as a design engineer for some of the most reputable engineering firms in the country where he designed bridges, storm sewers, watermains and transportation systems. He then was City Engineer for the City of Elmhurst for six years where he was responsible for capitol improvement projects, managing personnel in the Engineering Division and reviewing plans for private and commercial development projects in the City. Mark then moved on into managing large scale construction projects for a mid-sized contracting firm in the Chicago suburbs for over 12 years and was responsible for Streetscaping a number of suburban communities, installing miles of watermains, storm

sewers and sanitary sewers and rebuilding numerous critical roadways. In seeking more technical expertise, Mark went on to become the Technical Director for the International Concrete Repair Institute (ICRI) where he managed their certification program for measuring moisture in concrete, assisted in conventions and edited articles for the publication of their monthly trade publication. Mark left ICRI to manage a world class testing lab and gained an intimate knowledge about Ground Penetrating Radar, Carbon Fiber Reinforcement, Petrography and a variety of other exotic testing protocols. Mark's entrance into the home inspection field started with a brief but enlightening stint working for a waterproofing and foundation repair company where he diagnosed hundreds of distressed structures. Mark's previous broad base of experience and engineering knowledge gives him an in-depth and personal understanding of site developments and structures and he has since performed over 1,500 commercial and residential inspections and became the new owner of Domicile Consulting in 2019.

#### **EDUCATION**

BS Civil Engineering - University of Illinois LICENSES Illinois Professional Engineer Illinois Home Inspector License Illinois Home Inspector Entity

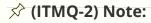
#### CERTIFICATIONS

CCPIA - Certified Inspector ASHI ACI Certification

#### **WORK HISTORY**

WVP Corporation - Associate Engineer
Wilbur Smith Associates - Design Engineer
City of Elmhurst - City Engineer
Martam Construction - Project Manager
ICRI - Technical Director
Universal Construction Testing - Lab Manager
Atlas Restoration - Waterproofing Salesman
Domicile Consulting - Inspector & Owner

## 9.1 Lead Inspector



### **DAN CULLEN**

### **SUMMARY OF EXPERIENCE AND QUALIFICATIONS**

Dan started his career as a union carpenter apprentice and eventually became a journeyman carpenter. Insanity must have kicked in and he decided to become a full time firefighter with the City of Chicago for over 31 years where he retired as a Lieutenant. He had incredible experiences that most people see in movies and on TV and he somehow managed to live to tell about them while absorbing valuable information about structures. During his tenure at

the Fire Department he ran a construction company for over 10 years and became intimate with the knowledge and skills regarding proper construction of structures. Also during his time with the Fire Department he became the Supervising Fire Marshall with the City of Chicago's Office of Fire Investigation and also an insurance inspector with Heritage Inspection Solutions. Those experiences and the lack of qualified inspectors to perform inspections for investment properties he began to accumulate led him into the home inspection field where he founded his own multi-inspector company in 1998 - Domicile Consulting. Dan has since become a leader in the inspection industry and has made Domicile one of the most highly rated inspection companies in the Chicago area. He has also been a mentor in the inspection industry and is currently an adjunct instructor for the American Society of Home Inspectors (ASHI) and the Healthy Homes Training and is the Vice President of the Northern Illinois Chicago (NIC) ASHI chapter which is responsible for providing continuing education and quality to the more dedicated inspectors in the inspection field. Dan has performed thousands of residential and commercial inspections and has one of the deepest understandings of building science and construction of anyone in the inspection industry.

#### **LICENSES**

Illinois Home Inspector License
Illinois Home Inspector Entity
Licensed Radon Testing Professional
Licensed Home Inspection Education Provider (2002 to 2016)

#### **CERTIFICATIONS**

FEMA/DHS Federal Emergency Response Official U.S. HUD 203k Consultant U.S. FHA Fee Inspector ASHI ACI Certification InterNachi Certified Inspector International Code Council

#### **CONTINUING EDUCATION**

International Code Council - Residential Inspection Institute
Asbestos Inspectors Initial Course
Radon Measurement Operators Course
Association of Condo, Townhouse and Homeowners Associations - Certified Leader International Code Council - Energy Efficient Code Training



Property, Energy & Moisture Intrusion Inspections

PROTECTING YOUR PROPERTY INVESTMENT

Domicile Consulting LLC 847.712.7874

Inspector:Mark Hughes, IL State Inspector License No. 451.011855

mark@domicileconsulting.com

Mark Hughes – IL License 450-011855 – Expires 11/30/2022

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