domicile consulting

Property, Energy & Moisture Intrusion Inspections

PROTECTING YOUR PROPERTY INVESTMENT

Inspection Report

Condominium Association

Property Address:
2468 Moldy Row
Chicago IL

Not The Real Building

Domicile Consulting

Dan Cullen IL Home Inspector License 450.000570 Expiration Date November 2012
1033 W. Vernon Park Place Unit C
Chicago IL 60607
773-771-6466

Table of Contents

Date: 10/1/2011	**Time:** 09:00 AM	**Report ID:**
Property: 2468 Moldy Row Chicago IL	**Customer:** Condominium Association	**Real Estate Professional:**

Comment Key or Definitions

The following definitions of comment descriptions represent this inspection report. All comments by the inspector should be considered before purchasing this home. Any recommendations by the inspector to repair or replace suggests a second opinion or further inspection by a qualified contractor. All costs associated with further inspection fees and repair or replacement of item, component or unit should be considered before you purchase the property.

Inspected (IN) = I visually observed the item, component or unit and if no other comments were made then it appeared to be functioning as intended allowing for normal wear and tear.

Not Inspected (NI)= I did not inspect this item, component or unit and made no representations of whether or not it was functioning as intended and will state a reason for not inspecting.

Not Present (NP) = This item, component or unit is not in this home or building.

Repair or Replace (RR) = The item, component or unit is not functioning as intended or needs further inspection by a qualified contractor. Items, components or units that can be repaired to satisfactory condition may not need replacement.

TYPE OF STRUCTURE:	**APPROXIMATE AGE OF STRUCTURE:**	**STRUCTURE FACES:**
Low Rise Condominium Extra Info: : Six Condominium Units	Under 10 Years	West

CLIENT PRESENT?:	**RADON TEST?:**	**WATER QUALITY TEST?:**
Yes	No	No

WEATHER CONDITIONS:	**AMBIENT TEMPERATURE:**	**NUMBER OF STORIES:**
Clear	Below 60....A/C not operated due to risk of equipment damage.	Three story, with Basement

EXTERIOR WALL CONSTRUCTION:	**FOUNDATION:**
Masonry EXTERIOR WALL CLADDING MATERIAL: : Face Brick on West Facade. Jumbo Brick on North, East, and South Facades.	Full basement (Finished coverings), Foundation Not Fully Visible FOUNDATION MATERIAL: : Poured Concrete

I. 4 POINT Inspection

This report reflects the findings of a limited scope moisture intrusion investigation performed at the request of the client named herein. The purpose of the investigation was to determine the cause of the moisture intrusion that has become evident in several areas of the interior condominium spaces. The inspection used only non-invasive techniques and therefore the concealed areas of the exterior wall assembly (wall cavities, wall framing, insulation, vapor retarders, etc.) could not be viewed. Bulk moisture can travel in unpredictable ways inside the space between the exterior wall cladding and the interior wall finishes. For these reasons, it is critically important to follow best construction practices regarding all exterior roof covering and wall cladding details so that the general risk for bulk moisture penetration into the wall assembly is reduced. This report is an attempt to compare the existing exterior wall and roof details against best practices in the industry and to make recommendations for repairs that will reduce the risk for ongoing moisture intrusion.

This home inspection is being conducted in accordance with the State of Illinois Home Inspector Licensing Act and following the American Society of Home Inspectors guidelines. No pest control, lead paint, asbestos, mold, or other types of testing are being performed. This is a visual inspection of readily accessible systems and components of the home. Some items or areas may not be inspected if they are blocked by furniture or stored items. The home inspector makes no guarantees regarding any of the home's systems or components. The inspection is performed in good faith and is a 'snapshot in time'; it is does NOT constitute a prediction that the home will perform adequately in the future. Only non-invasive processes are used in the course of the inspection. Seasonal changes such as wind-driven rain, ice, and humidity may bring some defects to light that were not noted during your home inspection. Basements and attics that were dry at the time of the inspection can be damp or leak in later weeks or months. If you discover any adverse conditions in the home after your Domicile Consulting inspection, please call us immediately for a re-inspection and free consultation. Your inspection fee will be refunded without question if you are unhappy with the inspection for any reason, provided the buyer/client signs a 'hold harmless' agreement when accepting the refunded fee. No guarantees or warranties are provided in connection with the home inspection. Any disputes that cannot be resolved by the inspector and the client will be submitted jointly to the American Arbitration Association for a decision.

Styles & Materials

ROOF COVERINGS:

Composition (Asphalt or Fiberglass) Shingles

Modified Bitumen

Rooftop decking prevented a full inspection of the roof covering.

ROOF VIEWED:

Roof Was Walked

Inspection Items

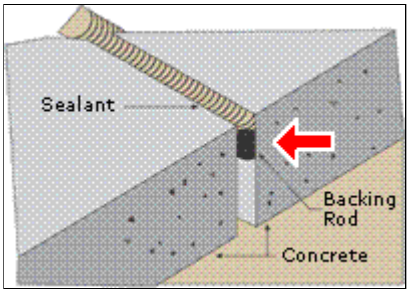
A. EXTERIOR WALLS, GROUNDS, CHIMNEYS, ETC.

Comments: Not Functioning or in need of repair

A. Picture 1 Front Exterior Stairs

(1) The joint between the poured concrete front steps and the adjacent masonry piers should be separated by a caulked capillary break so that moisture and melting salts are not drawn into the masonry walls. Failure to provide such a break will result in saturation of the masonry piers and make them subject to freeze/thaw damage. It is further recommended that the masonry piers on either side of the concrete steps be cleaned and then sealed using a high-quality silane or siloxane-based masonry water repellent in order to reduce the rate of moisture absorption as well as the absorption of ice melting compounds which can result in ongoing and accelerating deterioration of the Renaissance stone and the brick masonry units.

A. Picture 2 Aged and Deteriorated Caulking



A. Picture 3 Properly Tooled Sealant Joint With Backer Rod

(2) The application of the exterior sealants, a.k.a. caulking, was originally improper and is now also deteriorating. It is recommended that plans be made for a near-term removal and replacement of the exterior sealant joints. In order for the sealant joints to prevent drafts, repel moisture, absorb movement, and maintain durability high-quality materials inappropriate methods must be used. Please refer to the referenced article regarding exterior sealants.

Caulking Basics

A. Picture 4 Limestone Mortar Joint

(3) The mortar joints at the corners of the stone window sills and between all limestone copings/sills should be raked out and sealed instead with a high-quality masonry caulking compound to reduce the risk of moisture saturation, moisture intrusion to the interior, and damage to the brick masonry below the sill.

A. Picture 5 Incomplete Movement Joint

(4) The masonry wall movement joints do not extend to the bottom of the foundation wall as is dictated by industry standards. Further review of the exterior wall movement joints by a qualified masonry restoration contractor is recommended in order to determine if completion of the joints is feasible and advisable. No obvious cracking or signs of stress were noted at the lower termination of the incomplete movement joints despite their improper configuration.

A. Picture 6 Improperly Configured Wall Penetrations

(5) The openings in the masonry wall that allow the passage of the PVC vent piping are improperly configured and are therefore prone to allowing moisture intrusion. The openings are too large and are sealed with relatively brittle cement mortar instead of a flexible and adhesive material such as urethane caulk. Further evaluation and repair of the PVC vent piping wall penetrations by a qualified masonry restoration contractor is recommended; ideally, the vent piping would pass through neatly cored brick masonry units via openings that are slightly larger than the PVC piping themselves. This would allow the application of a properly configured sealant joint.

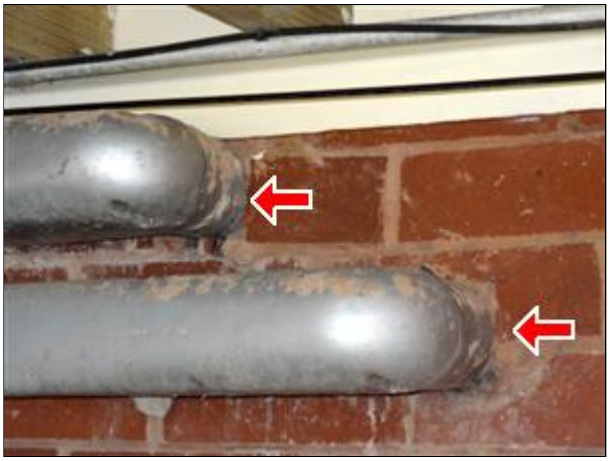
A. Picture 7 Wanton and Willful Negligence

(6) A damaged brick was noted at the lower north exterior masonry wall which is a result of careless drilling. That individual brick should be replaced by a qualified masonry contractor. The penetration through the individual brick masonry unit should be drilled carefully to prevent 'blow-out'.

A. Picture 8 Incomplete Sealant Joint

(7) The top edge of the steel deck ledgers should be properly sealed with high-quality caulking compound in order to reduce the risk for moisture entrapment and moisture intrusion through the through-wall ledger bolts.

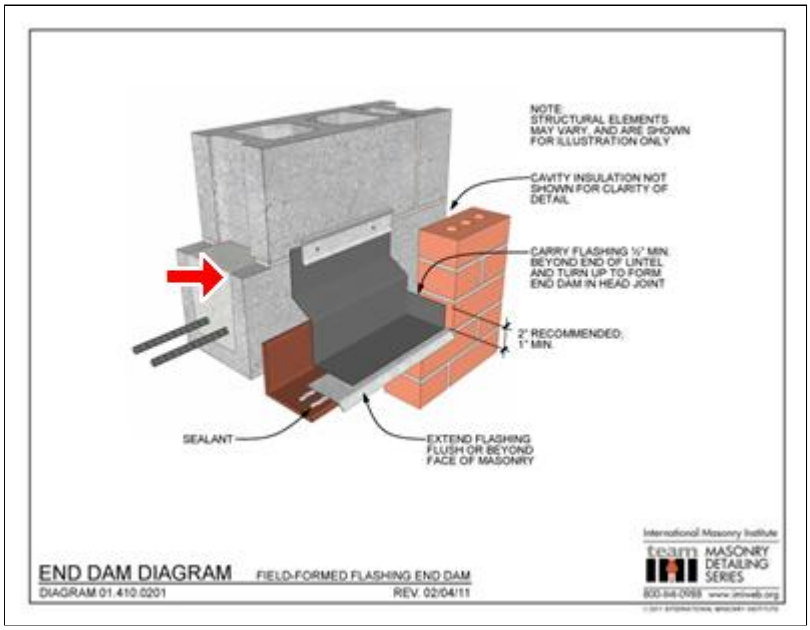
A. Picture 9 Unsealed Air-Conditioning Refrigerant Line Penetration



A. Picture 10 Feeder Conduit

(8) The exterior wall penetrations for the air-conditioning refrigerant lines and the electrical feeder conduits should be sealed using backer rod and urethane caulk or the equivalent in order to reduce the risk for drafts, energy losses, moisture intrusion, and pest entry into the structure.

A. Picture 11 Missing Flashing



A. Picture 12 Proper Flashing Detail

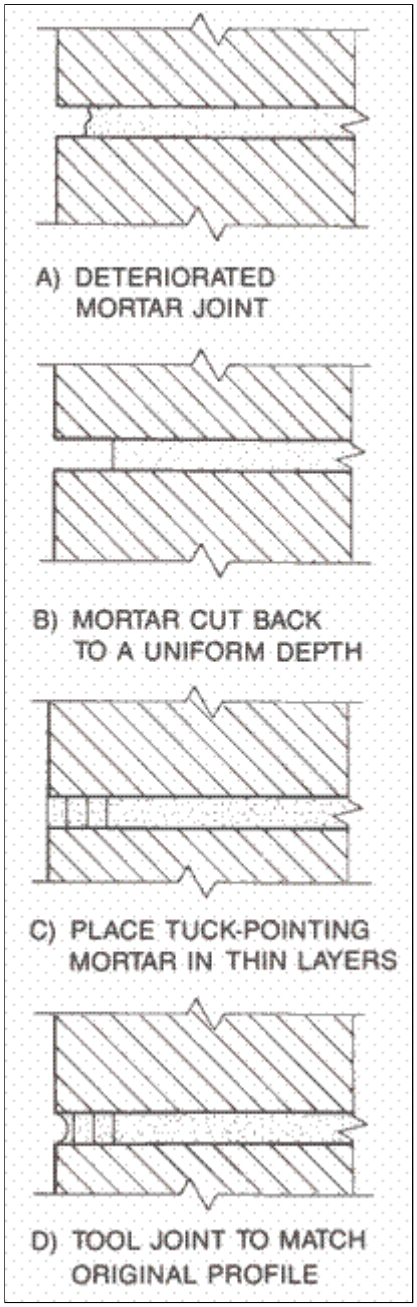
A. Picture 13 Substandard Cement Mortar

(9) The masonry wall flashings are either missing or improperly installed. The flashings should protrude from the wall by at least 1/4" at the following locations: the top of the foundation wall; above the masonry pockets where the floor joists are set into the concrete block; above and below every window and door. Missing or improperly installed wall flashing can

allow moisture to enter the home and cause rot, mold growth, and structural damage. The exterior masonry walls of this structure should be evaluated and repaired by a licensed and competent masonry contractor.

Since retrofitting of missing or improperly installed masonry wall flashing is both disruptive and expensive, it may be advisable for the condominium association to deal with this issue on a case-by-case basis. If and when bulk moisture intrusion becomes evident at the top or sides of the interior window openings then retrofitting of the missing flashings should be seriously considered.

A. Picture 14 Mortar Gap



A. Picture 15 Re-Pointing Sequence

(10) The quality of the brick masonry mortar joints is substandard. Areas of the mortar appear to contain excessive amounts of sand and are not properly tooled; improperly or inadequately applied cement mortar in a brick masonry wall often leads to excess moisture saturation by the brick masonry units and, after prolonged or wind driven rains, leads to bulk moisture intrusion to the moisture sensitive interior wall components like insulation, drywall, and wood framing. It is

the inspector's opinion that the masonry walls would benefit greatly from grinding out of the mortar joints and re-pointing. This process is expensive and is disruptive; however, it can be performed on a wall by wall basis in order to allow for easier budgeting.

The application of clear masonry sealants is a poor substitute for properly configured and tooled mortar joints. Further consultation with one or more masonry restoration contractors is recommended so that the condominium association can plan and budget for this process.

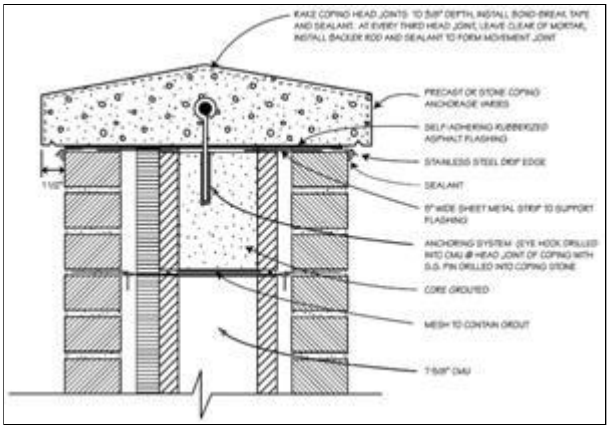
A. Picture 16 Rear Basement Entry Door

(11) Evidence of past moisture intrusion was noted at the rear basement exterior entry doors. It is recommended that the cracked and loose mortar bed below the limestone sills be replaced by a qualified masonry restoration contractor. It is also recommended that the gap between the aluminum door threshold and the limestone sill be neatly and professionally sealed using the appropriate caulking compound.

A. Picture 17 Improper Door Installation

(12) Exterior doors and windows in a masonry wall should be recessed approximately 1.5" to 2" in order to protect the wood components from the weather. The exterior rear entry doors at the basement, first floor, and second-floor have been improperly installed and stand outboard of the masonry wall. This puts them at much greater risk for moisture damage. It is recommended that the aluminum flashing be installed over the top of the protruding door trim in order to protect from moisture intrusion and moisture damage.

A. Picture 18 Improper Limestone Coping And Flashing Details



A. Picture 19 Correctly Configured/Installed Coping

A. Picture 20 Caulk Smear

A. Picture 21 Improper Parapet Capping Detail

(13) A number of defects were noted in the masonry wall flashing details in the area of the limestone parapet capping.

The individual limestone blocks do not sufficiently overhang the concrete masonry units and brick masonry units below.

The drip groove at the outside edges of the stone is missing.

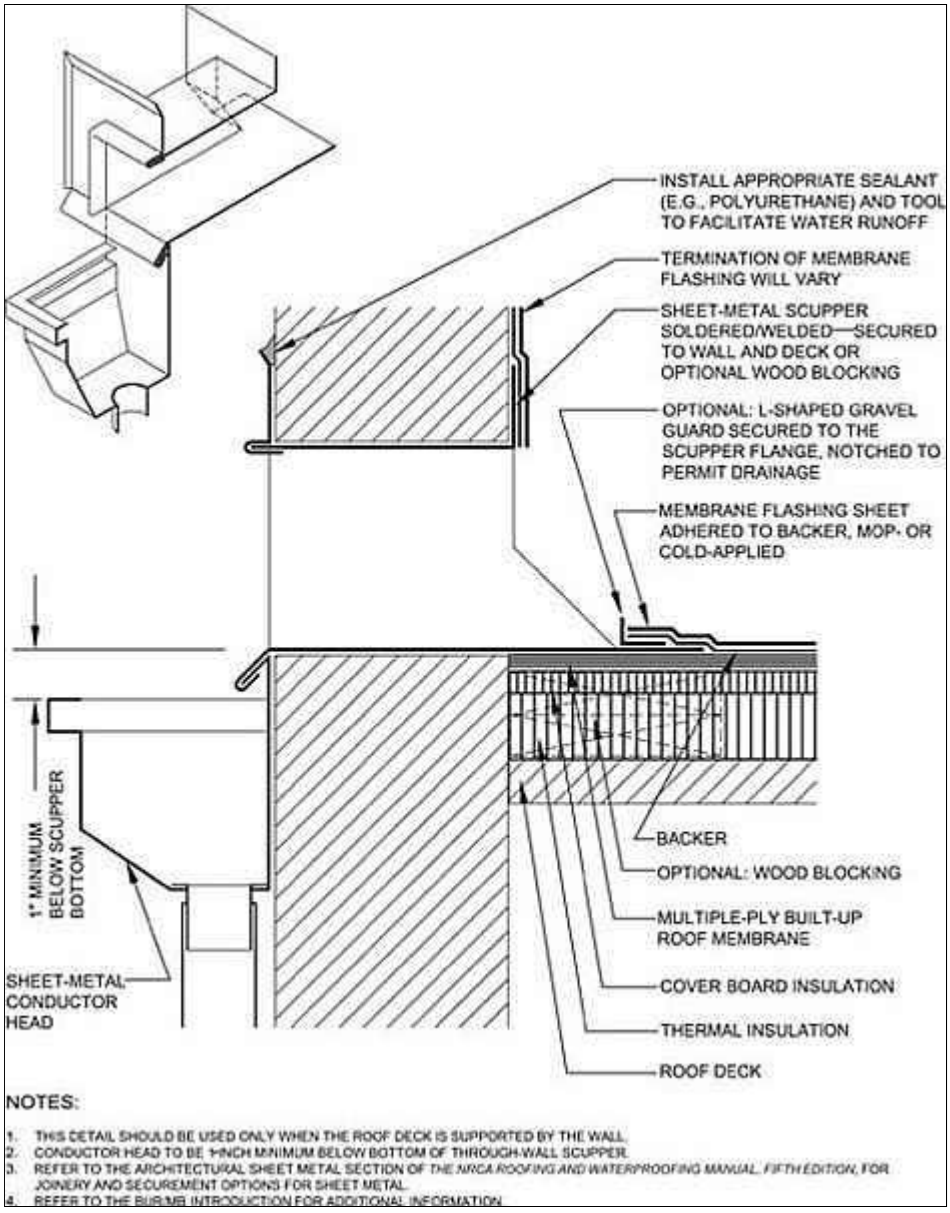
The cheap vinyl flashing (not approved for exposure to UV light) has been left exposed at some locations. At other areas the flashing has been cut back flush to the wall and has resulted in gaps/openings that can easily allow both wind-driven rain and capillary suction to draw moisture into the masonry wall below the flashing.

The urethane sealant between the individual limestone blocks has been smeared over cement mortar and will not perform as intended.

The limestone parapet capping should be removed and reinstalled according to best practices and industry standards and is detailed in the attached Brick Industry Association's Technical Notes #7. Please refer specifically to Figure 18 for a comparison between the 'as built' details and the industry standard.

A. Picture 22 Missing and Smeared Caulk at Scupper Opening

A. Picture 23 Loose Flap of Roofing Membrane At Scupper Opening



A. Picture 24 Correct Scupper Configuration

A. Picture 25 Risk for Moisture Penetration at Scupper

(14) The design and the condition of the through-wall scuppers are inconsistent with best practices and industry standards. The loose roof membrane at the through-wall opening is prone to allowing moisture entrapment, moisture intrusion, and moisture damage. The successively smeared applications of caulking around the brick opening will not perform the intended function of moisture resistance. Each of the through-wall scuppers should be repaired by a qualified roofing contractor. Repair should include removal and replacement of the existing caulk/sealant joints and securing of all roof membranes in and around the scupper. Plans should be made for the eventual reconfiguration of the sheet-metal details around the through-wall scuppers by a qualified contractor.

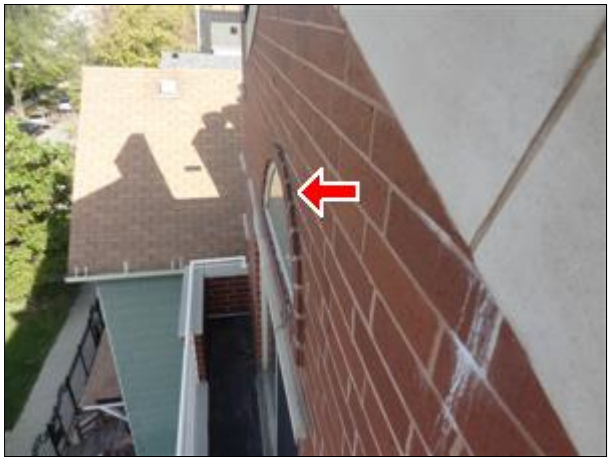
A. Picture 26 Improper Vinyl Siding Penetration

A. Picture 27 Vinyl Siding Mounting Blocks

A. Picture 28 Improper Vinyl Siding Penetrations

A. Picture 29 Installation of Vinyl Siding Mounting Blocks Recommended

(15) It is recommended that all of the exterior wall penetrations be made through the pre-formed vinyl siding mounting blocks that are manufactured for this purpose. The mounting blocks are self-flashing and reduce the risk for moisture intrusion. They also allow the siding to expand and contract around the mounting block thereby reducing the risk for siding damage, sealant failure, etc. Repair by a qualified siding specialist is recommended.



A. Picture 30 Projecting Soldier Course at Arch Top Window

(16) The projecting soldier courses of brick masonry on the exterior walls present an increased risk for moisture intrusion and moisture damage. The flat ledges at the top of the soldier courses result in increased moisture contact time and reduced drainage. Further evaluation by a qualified masonry restoration contractor is recommended however, it is the inspectors opinion that the flat ledge at the masonry soldier courses should be repaired by the application of a cove of either mortar or caulk so that moisture is encouraged to flow away from these flat surfaces.

A. Picture 31 Loose Siding

(17) A number of defects were noted regarding the installation of the vinyl siding over the penthouse walls. It is recommended that the condominium association plan for the replacement of the existing vinyl siding in order to ensure the long-term moisture resistant performance of the exterior wall cladding. Cement board siding, Kynar coated metal panels, or similarly weather resistant materials are recommended.

A. Picture 32 Mortar Cracking at Concrete Masonry Units Of the Inner Parapet

(18) It is recommended that the cracking at the mortar joints of the inner parapet be repaired by grinding out and re-pointing. These cracks appear due to moisture saturation and freeze/thaw cycling resulting from improper parapet capping details.

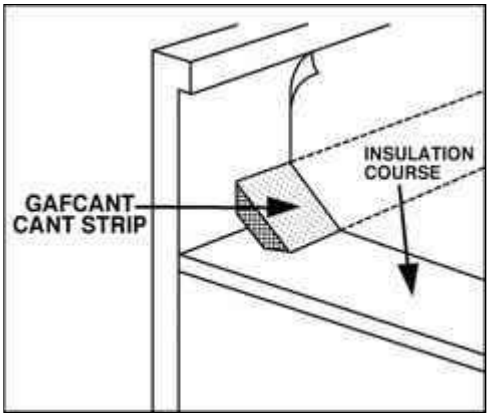
B. ROOF COVERING, ROOF FLASHINGS, ROOF DRAINAGE.

Comments: Not Functioning or in need of repair

B. Picture 1 "Deck of Card"

(1) The rooftop decks are supported by loose wooden blocks, many of which have become displaced. This creates a risk for damage to both the deck structure as well as to the roof covering. The deck will need to be completely disassembled and reassembled by a qualified contractor in order to reduce the risk for ongoing damage. The deck frame would, ideally, be supported by opposing bearing walls and would not rest directly on the roof covering or roof surface. If space or budget constraints prevent such a support system then the deck bearing points should be lined up directly over and on top of the roof framing trusses below. This will prevent deflection and damage to the plywood roof sheathing. The roof membrane must be protected from keen edges and from heavy loads imposed upon small surface areas. Also, the deck framing should not block the prompt flow of roof run-off from reaching the gutters or scupper drains.

B. Picture 2 Creates That Roofing Material



B. Picture 3 Cant Strip at Roof Crease

(2) Modified bitumen roofing membrane should not be creased at a 90° angle due to the risk for cracking, leaking, and damage. The use of cant strips at the roof to sidewall transition is required by both the roofing manufacturer as well as industry standards. It is recommended that the creases at the roof to sidewall transitions be evaluated by a qualified roofing contractor. It is the inspectors opinion that the most cost-effective approach to reducing the risk for ongoing damage and leaking at these locations is to regularly monitor these creases and to apply additional roof coating as needed until the installation of a new roof covering becomes necessary.

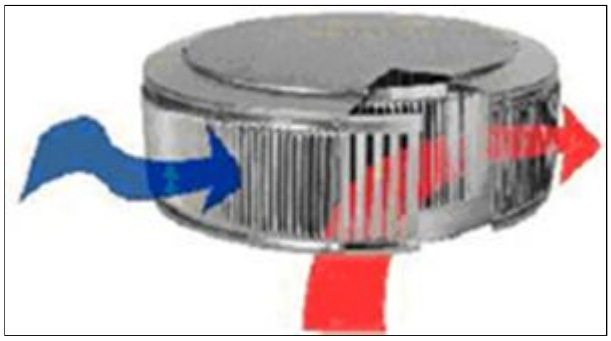
B. Picture 4 Risk for Damage to Roof Covering

(3) The installation of one or more sacrificial layers of roofing material is recommended underneath the rather keen edges of the air-conditioning bases at the rooftop. During hot weather, the modified bitumen roof material will soften and that, combined with the weight and vibration of the condensing unit, can result in scarring, damage and leaking of the roof covering.

B. Picture 5 Improper Shingle Application

(4) Multiple areas of improper roof shingle application were noted above the sloped cathedral ceilings at units 3S And 3N. The shingle rain guides and the shingle butt joints have been lined up over one another in multiple areas. These defects greatly increase the risk for leaking and damage. Since the existing composition shingle roof covering is at or near the end of its service life, it is recommended that shingle replacement, rather than repair, be performed. Further evaluation by a qualified roofing contractor is recommended.

B. Picture 6 Inappropriate Installation



B. Picture 7 Low Slope Roof Vent

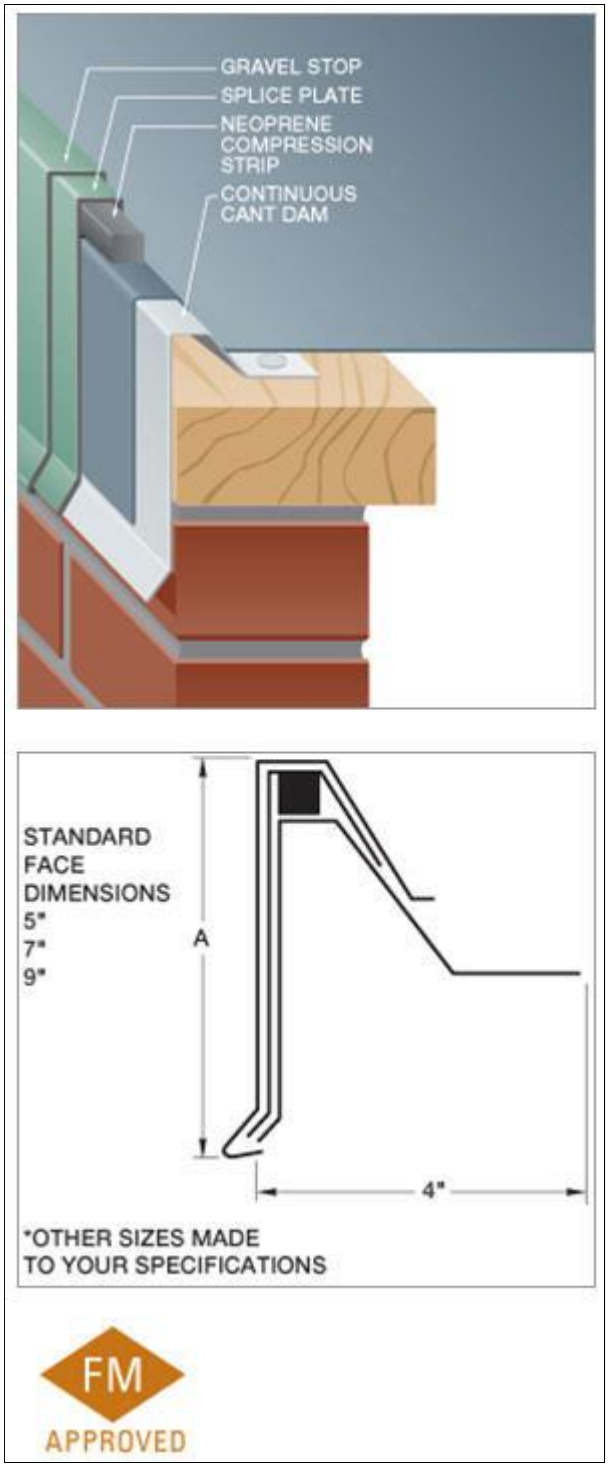
(5) The aluminum breathers noted on this roof are not intended to serve as venting devices for the roof plenum. These devices have very little net free vent area and are incapable of venting the potentially large volumes of trapped heat and moisture inside the roof plenum. Inadequate ventilation of the roof plenum can result in condensation, mold growth, excess energy usage, and reduced indoor air comfort during the cooling season. It is recommended that the existing undersized and inappropriate breathers be replaced with high-quality roof vents designed for low slope roof applications.

B. Picture 8 Spongy Roof Sheathing

(6) Areas of apparently deteriorated roof sheathing were noted at the low slope roof area between units 3N and 3S. These areas should be further evaluated and repaired as needed in the course of the recommended roof covering replacement.

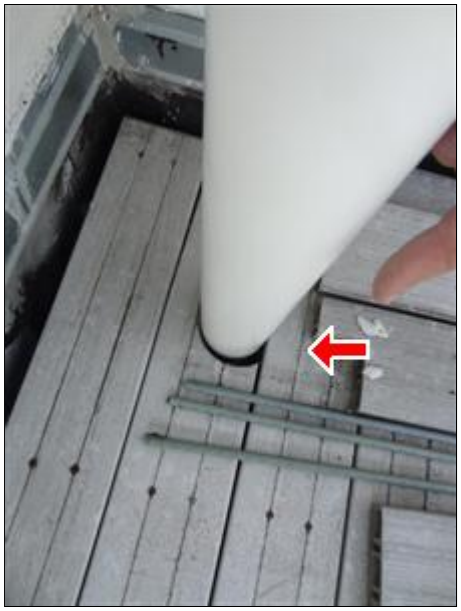
B. Picture 9 Unsealed Roof Membrane

B. Picture 10 Improperly Detailed Edge Metal Flashing



B. Picture 11 Proper Edge Metal Flashing Detail

(7) A number of defects were noted at the modified bitumen roof covering over the upper levels of units 3N and 3S. The failure to seal the modified bitumen roof covering at the gutter edge greatly increases the risk for moisture damage from ice damming. The material used as edge metal flashing is not approved for this use and is not properly installed. It is recommended that this roof covering be repaired as soon as possible and replaced as soon as practical.



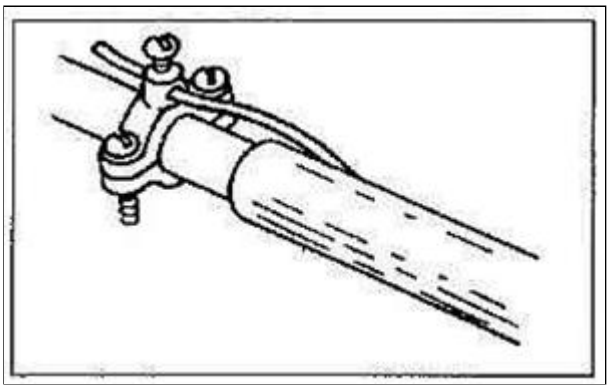
B. Picture 12 Loose Vent Pipe

(8) The PVC vent pipe at the Southeast corner of Unit 3N's rooftop deck is loose and therefore at risk for allowing moisture intrusion. It is recommended that the PVC piping penetration through the roof covering be evaluated and repaired as needed by a qualified roofing contractor.

C. ELECTRICAL SYSTEM, GROUNDING, CONNECTED DEVICES AND FIXTURES

Comments: Not Functioning or in need of repair

C. Picture 1 Improper Electrical Connection



C. Picture 2 Correct Way to Secure Grounding Electrode Conductor

The connection between the driven ground rod and the grounding electrode conductor at the rear basement is improper and unsafe. The grounding electrode conductor should be secured by the screw terminal and should not be squeezed between the clamp and the rod. Repair by a qualified electrician is recommended in order to help ensure the safe and effective bonding and grounding of the electrical system.

D. INSULATION, VENTILATION, ATTICS, ETC.

Comments: Not Functioning or in need of repair

D. Picture 1 Mold-like Substances on Underside of Roof Sheathing

Mold-like substances were noted on surface/s of this home. Mold growth results from moisture on organic strata and is first and foremost a moisture problem. The source of the moisture that is the proximal cause of the mold-growth should be found and eliminated before final remediation is performed. Initial remediative steps may be advisable in order to reduce the release of mold spores, fungal fragments, and mycotoxins during the moisture investigation and repair process. Small areas of mold (10 square feet or less) can be remediated by the homeowner successfully. An EPA approved mildewcide with residual mold inhibiting properties (Concrobium Brand) can be found at major home improvement stores. Relatively non-porous surfaces such as tile, laminate, concrete, etc. should be surface cleaned with this type of product and kept dry. Semi-porous surfaces such as wood framing and sheathing can also be cleaned in this manner if fungal growth hasn't degraded the material significantly. Porous surfaces such as paper-faced gypsum drywall, cellulose insulation, etc. should be removed and replaced.

Air sampling and bulk sampling for mold is typically not required for successful remediation. For routine assessments in which the goal is to identify possible mold contamination problems before remediation, it is usually unnecessary to collect and analyze air or settled dust samples for mold analysis because decisions about appropriate intervention strategies can typically be made on the basis of a visual inspection. Also, sampling and analysis costs can be relatively high and the interpretation of results is not straightforward. Air and dust monitoring may, however, be necessary in certain situations, including 1) if an individual has been diagnosed with a disease associated with fungal exposure through inhalation, 2) if it is suspected that the ventilation systems are contaminated, or 3) if the presence of mold is suspected but cannot be identified by a visual inspection or bulk sampling.

E. INTERIORS AND FINISHES

Comments: Not Functioning or in need of repair

E. Picture 1 Round Top Window

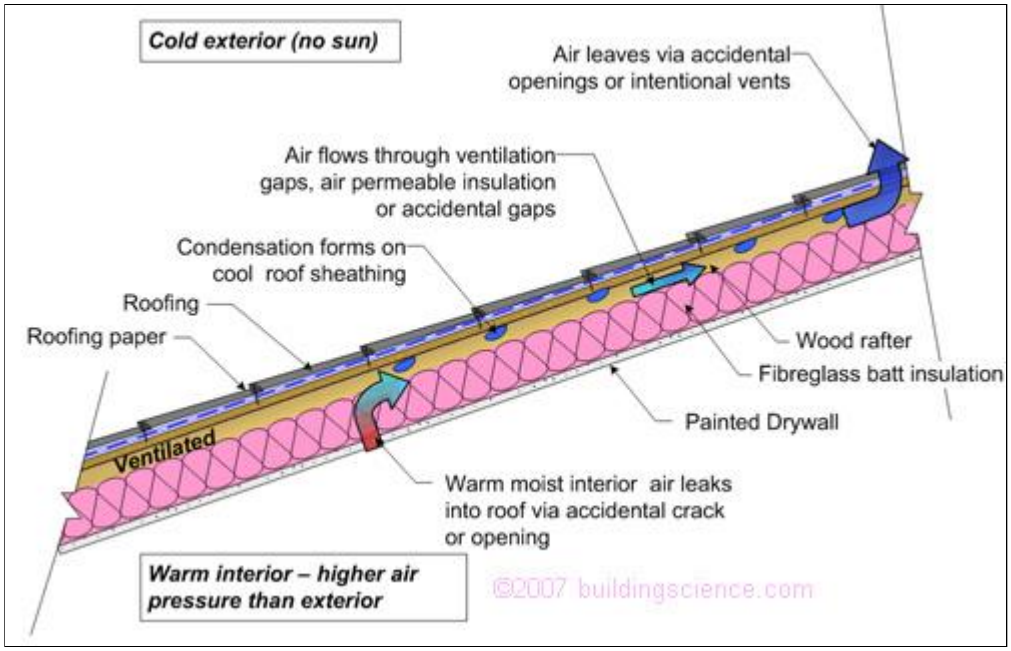
(1) The drywall at the round top interior window returns has been applied directly over the masonry structure. This presents a strong risk for condensation, moisture damage, and mold growth. It is recommended that the drywall finishes at the round top window returns be removed, that all gaps in the arched rough masonry opening be sealed, and that the interior window returns be finished with a non-moisture sensitive material. The use of paper faced or paper backed drywall is not recommended at these locations. Green Board is only marginally more mold resistant than common drywall. The use of non-paper faced gypsum wall board is recommended.

Fiberglass Faced Gypsum Wallboard

E. Picture 2 Cathedral ceiling at Unit 3N

E. Picture 3 Mold Growth at Underside of Roof Sheathing

E. Picture 4 Improper Insulation Installation



E. Picture 5 Faulty Insulation/Ventilation at Cathedral Ceiling Diagram

(2) The cathedral ceilings at units 3N and 3S are not properly ventilated and are prone to recurring condensation events, mold growth, wood rot, etc. The individual framing channels across the cathedral ceiling are lacking adequate air intake openings at the lower termination of the rafters. This omission results in air stagnation and excess contact time between warm and moist interior air leakage and the cold underside of the OSB roof sheathing during the heating season.

Also, the type of roof ridge vent used at this location is prone to allowing wind driven rain to enter the framing voids of the cathedral ceiling. The repeated deterioration of the drywall tape at the peak of the cathedral ceiling is evidence of this process taking place.

Also, the fiberglass batt insulation at the cathedral ceiling rafter channels is not been properly installed and is prone to allowing excess warmth and moisture above the insulation layer.

These construction defects have combined to create high moisture conditions conducive to mold growth within the individual rafter channels. It is the inspectors opinion that the most cost-effective (both in the long-term and short-term) approach to repairing the defects and remediating the damage at the cathedral ceilings is to remove the existing drywall at the slopes of the cathedral ceilings; remove the fiberglass insulation; remove the continuous ridge vent and perform the required roof patching; apply open cell polyurethane spray foam insulation against the underside of the roof decking and between the individual cathedral ceiling roof rafters; and to install a new drywall ceiling finish.

The question of mold remediation should be considered in consultation with the insulation contractor and a qualified indoor air quality specialist once the drywall has been removed and the full extent of any mold growth can be determined.

Care will be required at the ceiling can lights in order to prevent air leakage into the framing cavity and to also prevent any possibility for hot surface ignition of combustible materials.

Summary

domicile consulting

Property, Energy & Moisture Intrusion Inspections

PROTECTING YOUR PROPERTY INVESTMENT

Domicile Consulting

1033 W. Vernon Park Place Unit C
Chicago IL 60607
773-771-6466

Customer
Condominium Association

Address
2468 Moldy Row
Chicago IL

The following items or discoveries indicate that these systems or components do not function as intended or adversely affects the habitability of the dwelling; or appear to warrant further investigation by a specialist, or requires subsequent observation. This summary shall not contain recommendations for routine upkeep of a system or component to keep it in proper functioning condition or recommendations to upgrade or enhance the function, efficiency, or safety of the home. This Summary is not the entire report. The complete report may include additional information of concern to the customer. It is recommended that the customer read the complete report.

I. 4 POINT Inspection

General Summary

EXTERIOR WALLS, GROUNDS, CHIMNEYS, ETC.

Not Functioning or in need of repair

1. (1) The joint between the poured concrete front steps and the adjacent masonry piers should be separated by a caulked capillary break so that moisture and melting salts are not drawn into the masonry walls. Failure to provide such a break will result in saturation of the masonry piers and make them subject to freeze/thaw damage. It is further recommended that the masonry piers on either side of the concrete steps be cleaned and then sealed using a high-quality silane or siloxane-based masonry water repellent in order to reduce the rate of moisture absorption as well as the absorption of ice melting compounds which can result in ongoing and accelerating deterioration of the Renaissance stone and the brick masonry units.
2. (2) The application of the exterior sealants, a.k.a. caulking, was originally improper and is now also deteriorating. It is recommended that plans be made for a near-term removal and replacement of the exterior sealant joints. In order for the sealant joints to prevent drafts, repel moisture, absorb movement, and maintain durability high-quality materials inappropriate methods must be used. Please refer to the referenced article regarding exterior sealants.

   Caulking Basics

3. (3) The mortar joints at the corners of the stone window sills and between all limestone copings/sills should be raked out and sealed instead with a high-quality masonry caulking compound to reduce the risk of moisture saturation, moisture intrusion to the interior, and damage to the brick masonry below the sill.
4. (4) The masonry wall movement joints do not extend to the bottom of the foundation wall as is dictated by industry standards. Further review of the exterior wall movement joints by a qualified masonry restoration contractor is

recommended in order to determine if completion of the joints is feasible and advisable. No obvious cracking or signs of stress were noted at the lower termination of the incomplete movement joints despite their improper configuration.

5. (5) The openings in the masonry wall that allow the passage of the PVC vent piping are improperly configured and are therefore prone to allowing moisture intrusion. The openings are too large and are sealed with relatively brittle cement mortar instead of a flexible and adhesive material such as urethane caulk. Further evaluation and repair of the PVC vent piping wall penetrations by a qualified masonry restoration contractor is recommended; ideally, the vent piping would pass through neatly cored brick masonry units via openings that are slightly larger than the PVC piping themselves. This would allow the application of a properly configured sealant joint.
6. (6) A damaged brick was noted at the lower north exterior masonry wall which is a result of careless drilling. That individual brick should be replaced by a qualified masonry contractor. The penetration through the individual brick masonry unit should be drilled carefully to prevent 'blow-out'.
7. (7) The top edge of the steel deck ledgers should be properly sealed with high-quality caulking compound in order to reduce the risk for moisture entrapment and moisture intrusion through the through-wall ledger bolts.
8. (8) The exterior wall penetrations for the air-conditioning refrigerant lines and the electrical feeder conduits should be sealed using backer rod and urethane caulk or the equivalent in order to reduce the risk for drafts, energy losses, moisture intrusion, and pest entry into the structure.
9. (9) The masonry wall flashings are either missing or improperly installed. The flashings should protrude from the wall by at least 1/4" at the following locations: the top of the foundation wall; above the masonry pockets where the floor joists are set into the concrete block; above and below every window and door. Missing or improperly installed wall flashing can allow moisture to enter the home and cause rot, mold growth, and structural damage. The exterior masonry walls of this structure should be evaluated and repaired by a licensed and competent masonry contractor.

   Since retrofitting of missing or improperly installed masonry wall flashing is both disruptive and expensive, it may be advisable for the condominium association to deal with this issue on a case-by-case basis. If and when bulk moisture intrusion becomes evident at the top or sides of the interior window openings then retrofitting of the missing flashings should be seriously considered.

10. (10) The quality of the brick masonry mortar joints is substandard. Areas of the mortar appear to contain excessive amounts of sand and are not properly tooled; improperly or inadequately applied cement mortar in a brick masonry wall often leads to excess moisture saturation by the brick masonry units and, after prolonged or wind driven rains, leads to bulk moisture intrusion to the moisture sensitive interior wall components like insulation, drywall, and wood framing. It is the inspector's opinion that the masonry walls would benefit greatly from grinding out of the mortar joints and re-pointing. This process is expensive and is disruptive; however, it can be performed on a wall by wall basis in order to allow for easier budgeting.

    The application of clear masonry sealants is a poor substitute for properly configured and tooled mortar joints. Further consultation with one or more masonry restoration contractors is recommended so that the condominium association can plan and budget for this process.

11. (11) Evidence of past moisture intrusion was noted at the rear basement exterior entry doors. It is recommended that the cracked and loose mortar bed below the limestone sills be replaced by a qualified masonry restoration contractor. It is also recommended that the gap between the aluminum door threshold and the limestone sill be neatly and professionally sealed using the appropriate caulking compound.
12. (12) Exterior doors and windows in a masonry wall should be recessed approximately 1.5" to 2" in order to protect the wood components from the weather. The exterior rear entry doors at the basement, first floor, and second-floor have been improperly installed and stand outboard of the masonry wall. This puts them at much greater risk for moisture damage. It is recommended that the aluminum flashing be installed over the top of the protruding door trim in order to protect from moisture intrusion and moisture damage.
13. (13) A number of defects were noted in the masonry wall flashing details in the area of the limestone parapet capping.

    The individual limestone blocks do not sufficiently overhang the concrete masonry units and brick masonry units below.

    The drip groove at the outside edges of the stone is missing.

The cheap vinyl flashing (not approved for exposure to UV light) has been left exposed at some locations. At other areas the flashing has been cut back flush to the wall and has resulted in gaps/openings that can easily allow both wind-driven rain and capillary suction to draw moisture into the masonry wall below the flashing.

The urethane sealant between the individual limestone blocks has been smeared over cement mortar and will not perform as intended.

The limestone parapet capping should be removed and reinstalled according to best practices and industry standards and is detailed in the attached Brick Industry Association's Technical Notes #7. Please refer specifically to Figure 18 for a comparison between the 'as built' details and the industry standard.

14. (14) The design and the condition of the through-wall scuppers are inconsistent with best practices and industry standards. The loose roof membrane at the through-wall opening is prone to allowing moisture entrapment, moisture intrusion, and moisture damage. The successively smeared applications of caulking around the brick opening will not perform the intended function of moisture resistance. Each of the through-wall scuppers should be repaired by a qualified roofing contractor. Repair should include removal and replacement of the existing caulk/sealant joints and securing of all roof membranes in and around the scupper. Plans should be made for the eventual reconfiguration of the sheet-metal details around the through-wall scuppers by a qualified contractor.

15. (15) It is recommended that all of the exterior wall penetrations be made through the pre-formed vinyl siding mounting blocks that are manufactured for this purpose. The mounting blocks are self-flashing and reduce the risk for moisture intrusion. They also allow the siding to expand and contract around the mounting block thereby reducing the risk for siding damage, sealant failure, etc. Repair by a qualified siding specialist is recommended.

16. (16) The projecting soldier courses of brick masonry on the exterior walls present an increased risk for moisture intrusion and moisture damage. The flat ledges at the top of the soldier courses result in increased moisture contact time and reduced drainage. Further evaluation by a qualified masonry restoration contractor is recommended however, it is the inspectors opinion that the flat ledge at the masonry soldier courses should be repaired by the application of a cove of either mortar or caulk so that moisture is encouraged to flow away from these flat surfaces.

17. (17) A number of defects were noted regarding the installation of the vinyl siding over the penthouse walls. It is recommended that the condominium association plan for the replacement of the existing vinyl siding in order to ensure the long-term moisture resistant performance of the exterior wall cladding. Cement board siding, Kynar coated metal panels, or similarly weather resistant materials are recommended.

18. (18) It is recommended that the cracking at the mortar joints of the inner parapet be repaired by grinding out and re-pointing. These cracks appear due to moisture saturation and freeze/thaw cycling resulting from improper parapet capping details.

ROOF COVERING, ROOF FLASHINGS, ROOF DRAINAGE.

Not Functioning or in need of repair

19. (1) The rooftop decks are supported by loose wooden blocks, many of which have become displaced. This creates a risk for damage to both the deck structure as well as to the roof covering. The deck will need to be completely disassembled and reassembled by a qualified contractor in order to reduce the risk for ongoing damage. The deck frame would, ideally, be supported by opposing bearing walls and would not rest directly on the roof covering or roof surface. If space or budget constraints prevent such a support system then the deck bearing points should be lined up directly over and on top of the roof framing trusses below. This will prevent deflection and damage to the plywood roof sheathing. The roof membrane must be protected from keen edges and from heavy loads imposed upon small surface areas. Also, the deck framing should not block the prompt flow of roof run-off from reaching the gutters or scupper drains.

20. (2) Modified bitumen roofing membrane should not be creased at a 90° angle due to the risk for cracking, leaking, and damage. The use of cant strips at the roof to sidewall transition is required by both the roofing manufacturer as well as industry standards. It is recommended that the creases at the roof to sidewall transitions be evaluated by a qualified roofing contractor. It is the inspectors opinion that the most cost-effective approach to reducing the risk for ongoing damage and leaking at these locations is to regularly monitor these creases and to apply additional roof coating as needed until the installation of a new roof covering becomes necessary.

21. (3) The installation of one or more sacrificial layers of roofing material is recommended underneath the rather keen edges of the air-conditioning bases at the rooftop. During hot weather, the modified bitumen roof material will soften and that, combined with the weight and vibration of the condensing unit, can result in scarring, damage and leaking of the roof covering.

22. (4) Multiple areas of improper roof shingle application were noted above the sloped cathedral ceilings at units 3S And 3N. The shingle rain guides and the shingle butt joints have been lined up over one another in multiple areas. These defects greatly increase the risk for leaking and damage. Since the existing composition shingle roof covering is at or near the end of its service life, it is recommended that shingle replacement, rather than repair, be performed. Further evaluation by a qualified roofing contractor is recommended.

23. (5) The aluminum breathers noted on this roof are not intended to serve as venting devices for the roof plenum. These devices have very little net free vent area and are incapable of venting the potentially large volumes of trapped heat and moisture inside the roof plenum. Inadequate ventilation of the roof plenum can result in condensation, mold growth, excess energy usage, and reduced indoor air comfort during the cooling season. It is recommended that the existing undersized and inappropriate breathers be replaced with high-quality roof vents designed for low slope roof applications.

24. (6) Areas of apparently deteriorated roof sheathing were noted at the low slope roof area between units 3N and 3S. These areas should be further evaluated and repaired as needed in the course of the recommended roof covering replacement.

25. (7) A number of defects were noted at the modified bitumen roof covering over the upper levels of units 3N and 3S. The failure to seal the modified bitumen roof covering at the gutter edge greatly increases the risk for moisture damage from ice damming. The material used as edge metal flashing is not approved for this use and is not properly installed. It is recommended that this roof covering be repaired as soon as possible and replaced as soon as practical.

26. (8) The PVC vent pipe at the Southeast corner of Unit 3N's rooftop deck is loose and therefore at risk for allowing moisture intrusion. It is recommended that the PVC piping penetration through the roof covering be evaluated and repaired as needed by a qualified roofing contractor.

ELECTRICAL SYSTEM, GROUNDING, CONNECTED DEVICES AND FIXTURES

Not Functioning or in need of repair

27. The connection between the driven ground rod and the grounding electrode conductor at the rear basement is improper and unsafe. The grounding electrode conductor should be secured by the screw terminal and should not be squeezed between the clamp and the rod. Repair by a qualified electrician is recommended in order to help ensure the safe and effective bonding and grounding of the electrical system.

INSULATION, VENTILATION, ATTICS, ETC.

Not Functioning or in need of repair

28. Mold-like substances were noted on surface/s of this home. Mold growth results from moisture on organic strata and is first and foremost a moisture problem. The source of the moisture that is the proximal cause of the mold-growth should be found and eliminated before final remediation is performed. Initial remediative steps may be advisable in order to reduce the release of mold spores, fungal fragments, and mycotoxins during the moisture investigation and repair process. Small areas of mold (10 square feet or less) can be remediated by the homeowner successfully. An EPA approved mildewcide with residual mold inhibiting properties (Concrobium Brand) can be found at major home improvement stores. Relatively non-porous surfaces such as tile, laminate, concrete, etc. should be surface cleaned with this type of product and kept dry. Semi-porous surfaces such as wood framing and sheathing can also be cleaned in this manner if fungal growth hasn't degraded the material significantly. Porous surfaces such as paper-faced gypsum drywall, cellulose insulation, etc. should be removed and replaced.

Air sampling and bulk sampling for mold is typically not required for successful remediation. For routine assessments in which the goal is to identify possible mold contamination problems before remediation, it is usually unnecessary to collect and analyze air or settled dust samples for mold analysis because decisions about appropriate intervention strategies can typically be made on the basis of a visual inspection. Also, sampling and analysis costs can be relatively high and the interpretation of results is not straightforward. Air and dust monitoring may, however, be necessary in certain situations, including 1) if an individual has been diagnosed with a disease associated with fungal exposure through inhalation, 2) if it is suspected that the ventilation systems are contaminated, or 3) if the presence of mold is suspected but cannot be identified by a visual inspection or bulk sampling.

INTERIORS AND FINISHES

Not Functioning or in need of repair

29. (1) The drywall at the round top interior window returns has been applied directly over the masonry structure. This presents a strong risk for condensation, moisture damage, and mold growth. It is recommended that the drywall finishes at the round top window returns be removed, that all gaps in the arched rough masonry opening be sealed, and that the interior window returns be finished with a non-moisture sensitive material. The use of paper faced or paper backed

drywall is not recommended at these locations. Green Board is only marginally more mold resistant than common drywall. The use of non-paper faced gypsum wall board is recommended.

Fiberglass Faced Gypsum Wallboard

30. (2) The cathedral ceilings at units 3N and 3S are not properly ventilated and are prone to recurring condensation events, mold growth, wood rot, etc. The individual framing channels across the cathedral ceiling are lacking adequate air intake openings at the lower termination of the rafters. This omission results in air stagnation and excess contact time between warm and moist interior air leakage and the cold underside of the OSB roof sheathing during the heating season.

Also, the type of roof ridge vent used at this location is prone to allowing wind driven rain to enter the framing voids of the cathedral ceiling. The repeated deterioration of the drywall tape at the peak of the cathedral ceiling is evidence of this process taking place.

Also, the fiberglass batt insulation at the cathedral ceiling rafter channels is not been properly installed and is prone to allowing excess warmth and moisture above the insulation layer.

These construction defects have combined to create high moisture conditions conducive to mold growth within the individual rafter channels. It is the inspectors opinion that the most cost-effective (both in the long-term and short-term) approach to repairing the defects and remediating the damage at the cathedral ceilings is to remove the existing drywall at the slopes of the cathedral ceilings; remove the fiberglass insulation; remove the continuous ridge vent and perform the required roof patching; apply open cell polyurethane spray foam insulation against the underside of the roof decking and between the individual cathedral ceiling roof rafters; and to install a new drywall ceiling finish.

The question of mold remediation should be considered in consultation with the insulation contractor and a qualified indoor air quality specialist once the drywall has been removed and the full extent of any mold growth can be determined.

Care will be required at the ceiling can lights in order to prevent air leakage into the framing cavity and to also prevent any possibility for hot surface ignition of combustible materials.

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domicile consulting
Property, Energy & Moisture Intrusion Inspections

PROTECTING YOUR PROPERTY INVESTMENT

INVOICE

Domicile Consulting
1033 W. Vernon Park Place Unit C
Chicago IL 60607
773-771-6466
Inspected By: Dan Cullen

Inspection Date: 10/1/2011
Report ID:

Customer Info:	**Inspection Property:**
Condominium Association **Customer's Real Estate Professional:**	2468 Moldy Row Chicago IL

Inspection Fee:

Service	Price	Amount	Sub-Total
Courtesy Inspection	1.00	1	1.00

Tax $0.00
Total Price $1.00

Payment Method: Net 30 Days
Payment Status: Invoice Sent
Note:

AGREEMENT

THIS IS A CONFIDENTIAL REPORT FOR THE CLIENTS NAMED HEREIN. THIS REPORT SUPERSEDES ANY ORAL COMMENTS AND DISCUSSIONS AT OR PRIOR TO THE INSPECTION. THERE ARE NO GUARANTEES OR WARRANTIES EITHER EXPRESSED OR IMPLIED IN THIS INSPECTION OR IN THE ACCOMPANYING REPORT.

- **The purpose of this home inspection is to provide the client with a summary of the visual observations which the inspector makes regarding the portions of the premises which were in plain view and accessible at the time of the inspection. The inspector is not responsible for hidden defects or for reporting on the condition of areas that are visually inaccessible. Emphasis is placed on major expenses and on safety issues. Some less important deficiencies may be discovered, but an all-inclusive list of minor building flaws is not provided.**

- **This report is NOT a guarantee of code compliance of the building being inspected.**

- **This report is NOT a warranty of the condition of the premises, nor an opinion as to the advisability of the property for purchase.**

- **This inspection is being conducted in accordance with the standards of practice of the Home Inspector License Act of Illinois and the American Society of Home Inspectors, copies of which are available upon request. The following components are included in this inspection: structural system/foundation; exterior; roof; plumbing; heating; cooling; electric; insulation and ventilation; interior spaces; and fireplace components.**

- **All inspection methods are non-invasive and only normal operating controls will be used. A representative number of outlets, switches, and lights will be tested for operation. Furniture, appliances, personal items, stored materials, etc. are not moved for the inspection.**

- **The inspector will walk on flat roofs where conditions permit, when they are safely accessible with a 15' ladder, and where no potential exists for damage to the roof surface.**

- **Central Air Conditioning units will not be operated unless the outside temperature has been above 60 degrees for at least 24 hours prior to the inspection; doing so could damage the air conditioning equipment.**

- **Wet crawl spaces and those with either low headroom or insufficient openings are not entered but are only visually examined from the access area. Attics are entered when it is feasible and if there is sufficient space to maneuver safely in the attic.**

- **The inspector will not perform any procedures which could either lead to his/her personal injury or which could result in damage to the subject property. This may result in some items or areas not being available for inspection.**

- **Appliances and mechanical systems will be checked for proper operation during this inspection. The inspector will not light any gas equipment, nor turn on any valves, nor re-set circuit breakers or fuses. The clients are responsible for maintaining or arranging for the maintenance of their mechanical equipment after closing. The client should be aware that the equipment may still be in use until closing and it is the**

client's responsibility to re-check all mechanical systems and appliances for proper operation within 24 hours prior to closing.

- **Domicile Consulting Inc. does not provide any engineering, architectural, pest control, or environmental inspection services in connection with this home inspection unless otherwise agreed upon by both parties in writing.**
- **Domicile Consulting Inc. is not licensed for either asbestos or lead paint detection and makes no definitive representation as to the presence or absence of either material.**
- **All residential properties are subject to moisture related conditions that can cause mold or fungi. Domicile Consulting Inc. does not perform testing for mold or fungi; makes no representations as to their definitive presence or absence in this property; and specifically excludes them from this inspection unless otherwise agreed upon in writing by both parties.**
- **The inspection of fireplaces is limited to the firebox and those portions of the flue that are readily viewable. The inspector is not required to light any gas appliances.**
- **Many properties are being constructed with concrete block. A number of these structures are experiencing water infiltration problems as a result of improper materials and/or construction methods which may not be readily determined from a visual inspection. Domicile Consulting Inc. makes no representation as to the performance of these construction assemblies and specifically excludes them from this inspection except where otherwise indicated.**
- **Any verbal or written estimations or approximations made by the inspector regarding potential repairs of the premises are neither a firm estimate nor a bid regarding such repair work. The purchaser must contact their own agents regarding the actual price of any work to be done.**

- **It is understood and agreed that in the event of any error or omission on the part of Domicile Consulting Inc. in connection with this inspection or this report, or in the event of any claim whatsoever against Domicile Consulting Inc., that any liability of Domicile Consulting Inc., its employees, inspectors or agents shall be solely and exclusively limited to an amount no greater than the inspection fee paid. Should a claim or dispute arise relating to the inspection or to the report, Domicile Consulting Inc. shall be notified immediately in writing and shall be permitted to re-inspect the subject item. Domicile Consulting Inc. shall not be liable for differing opinions of others nor shall any claim or dispute exist to items that have been repaired or modified prior to a re-inspection of those items by Domicile Consulting Inc. Any unresolved disputes shall be submitted to and settled by binding arbitration only, in Chicago, Illinois, in accordance with the rules and regulations of the American Arbitration Association. Each covenant and agreement in this contract is a separate and independent covenant and agreement. If any term or provision shall be invalid or unenforceable, the remainder of the agreement remains valid and enforceable.**

The undersigned agrees to pay $ _____1.00_____ for this inspection.

SUBMITTED: _____IL License# 050.000570
Domicile Consulting Inc. Expires: 11/30/2006

THE UNDERSIGNED HAS READ AND AGREES WITH THE ABOVE AGREEMENT IN IT'S ENTIRETY:

ACCEPTED: _____ DATE:_____

ACCEPTED: _____ DATE:_____

ILLINOIS HOME INSPECTOR ACT
PROPERTY INSPECTION REPORT DISCLOSURE FORM

Dear Client,

The Illinois Home Inspector License Act prohibits the inspector from disclosing <u>any information</u> regarding the inspection without the client's written authorization. This includes but is not limited to casual conversations or summations that may take place at the inspection as well as follow-up calls at a later date. Please take a moment to read through the following options, initial your choice/s, and sign at the bottom of the page.

Provide my Real Estate Agent or Broker with any necessary information regarding the inspection. ____Yes ____No

Provide the Listing Agent or the Seller with any necessary information regarding the inspection. ____ Yes ____No

Provide my Attorney with any necessary information regarding this inspection.
____ Yes ____No

Provide the Seller's Attorney with any necessary information regarding this inspection.
____ Yes ____No

Provide the following person/s with any necessary information regarding this inspection.

_____

_____

Signature: _____Date_____