WARREN ENGINEERING

PRO-ENGINEERED INSPECTIONS

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Ms. Michelle Stark
Realty Performance Group
1800 Hudson Avenue, Suite 100
Rochester, NY 14617

RE: Brittany Commons
Rochester, NY 14618

Dear Ms. Stark:

This inspection and report were done pursuant to a contract which you signed prior to the inspection. You selected our standard inspection which is a limited visual inspection and an overview as opposed to our comprehensive inspection. A copy of that contract has been provided to you, a sample of which is provided at the end of this report. This further defines the limitations of our standard inspection.

This report is furnished at your request in strict confidence by us as your agent and employee for your exclusive use as an aid in determining the physical condition of the subject premises. No reproduction or reuse of this report for the benefit of others is permitted without our expressed written consent. This report is intended to cover only such portions of the premises and the equipment therein as may be examined visually without removing surface materials and we warn you that although such premises and/or equipment may be in good condition when examined, the condition may change thereafter. Furthermore, this report is not to be used as a basis for determining the value of such premises or whether same is or is not to be purchased. This report is not to be construed as a guaranty, or warranty of the premises or equipment therein or of their fitness for use.

INTRODUCTION

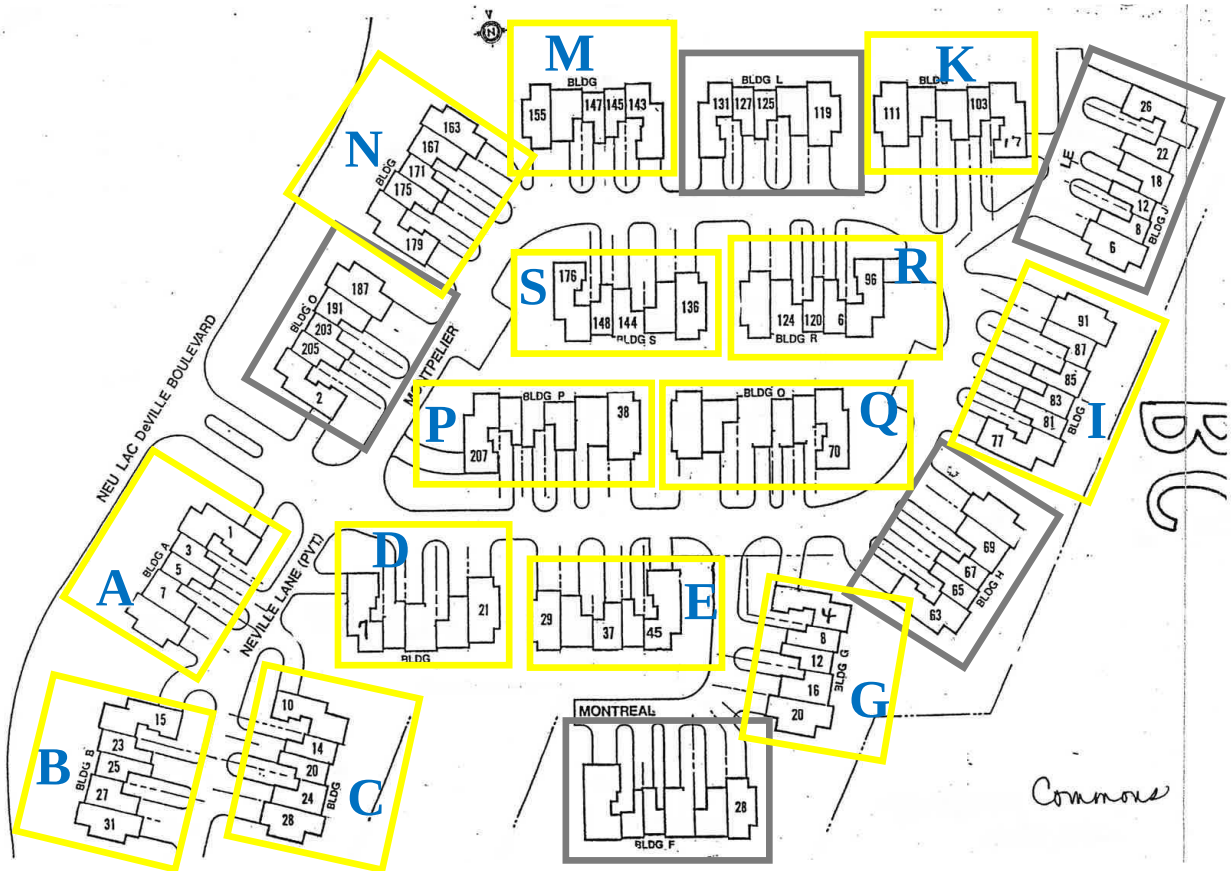
We performed a limited visual inspection of the exterior siding and roofing for 14 of the 19 buildings of the subject townhouse complex. This was to provide a professional opinion as the condition and the expected remaining life of the siding and the roofs. These inspections were performed from the ground and with the use of a 14 foot telescoping ladder to view and walk many of the roofs. We did not directly walk a few of the less accessible roofs towards the center portions of the buildings, but we walked the roofs on each end of the subject buildings as well as several of the adjacent accessible roofs.

OBSERVATIONS

Our visual inspection was performed on August 8, 9 and 10, 2016. We inspected buildings "A" through "S" in alphabetical order, with the exceptions of buildings "F", "H", "J", "L" and "O". These buildings were previously inspected by our firm under separate contract and a separate report for those builds was already provided to you.

During our previous inspection we were informed that some new wood siding had been installed on the west side of building "S" (unit #176), and the south side of "C" (south of unit #28). We were also informed that the majority of the roofs were resurfaced between the year 2000 and the year 2005. Or previous report stated that buildings are on roughly a five (5) year cycle of staining/painting for the siding and trim. There are three basic types of exterior siding. These include brick siding on the front, horizontal clapboard wood siding, and vertical lap wood siding. Also, there are several fireplace chimney enclosures that have been replaced with vinyl siding.

This report contains a brief evaluation of the roofing and siding materials of each individual building inspected, including pictures of examples. All pictures taken during the inspection will be provided to you, our client, electronically as well. Also, a combined analysis of the roofing and siding conditions within the complex is included in this report.



BUILDING "A" (units #1, #3, #5, #7 and #11)

Vertical Siding

We noted many areas of deteriorated or rotted siding around the building. This is most evident where the vertical siding is in contact with the brick siding's water table or with the roof surface. Typically, this deterioration is an indication of improper flashing.

We noted an area on the south side of Building "A" with delaminated paint.

There are several areas around the building that have developed gaps between the vertical laps. These gaps can be an access point for unwanted moisture or pests.

Deterioration at Water Table & Area of Rot

Opening Gap & Deterioration at Roof Surface

Horizontal Siding

The horizontal clapboard wood siding has suffered isolated deterioration in areas in contact with roof surfaces. Also, there is deterioration to the siding on most of the chimney enclosures. This appears to be caused by improper flashing along with awkward roof angles and intersections, causing excessive contact with roof run-off.

Rot in Clapboards

We noted a missing clapboard on a rear bay window of the building. Also, we noted that the chimney enclosure of unit #11 has replacement vinyl siding.

There are areas of worn and peeling paint. This is most evident in south-facing areas with direct sun exposure.

We briefly spoke to the owner of unit #1. She indicated that during a deck rehabilitation, the contractor found rot around her chimney enclosure. She produced photos showing rot in the framing members of this chimney enclosure.


Missing Clapboard & Paint Delamination

Brick Siding

The brick siding appeared to be in generally good condition. We did note an area adjacent to wood siding with a gap. Keeping areas such as this caulked and sealed is recommended. This will help to keep unwanted pests from entering behind the siding.

Seal Gap

Trim

Areas of rot and deterioration were noted sporadically throughout the trim. These were most evident in lower corners of chimney surrounds. Also, we noted deteriorated or rotted trim at the lower corners of some window surrounds.


Trim with Rot and Damage

Roof

This roof surface appeared to be in average condition when compared to the other buildings surveyed.


Roof Surface with Some Damage

We did note some areas of isolated shingle damage. These damaged areas can be more prone to roof leakage. Damaged shingles can be replaced as needed.

There were some areas with moss of fungal growth on the roof surface. These areas appeared to be exposed to limited amounts of sunlight. There are types of spray-on solutions that can be used to kill the growth to allow it to wash off during rains.

Miscellaneous

We noted the majority of the steel flue pipes penetrating the roof are rusty. Some amount of painting, repair or replacement may become necessary as deterioration continues.


Rusted B-Vent and Paint on Front Door

We noted peeling paint on the front door assembly of one of the units. Preparing, priming, and repainting this is recommended.

BUILDING "B" (units #15, #23, #25, #27 and #31)

Vertical Siding

The vertical siding on this building is showing signs of damage and wear in typical areas. These include intersections with brick water tables as well as areas that are in contact with roof surfaces. We also noted areas of opening vertical seams.


Open Seam in Vertical Siding & Deteriorated Siding and Trim


Rot and Deterioration at Water Table/Brick Ledge

Horizontal Siding


Damaged Siding & Rot at Gutter End Cap (lack of kick-out flashing above gutters)

We noted isolated areas of severe rot and damage to horizontal siding on this building. Portions of chimney enclosures have suffered the most concentrated rot and damage. We noted that three of the chimney enclosures on this building have replacement vinyl siding installed already.

Deterioration to Siding on Chimney Enclosure and at Roof Interface

The paint on the south facing portion of the building is showing signs of weathering and deterioration. This is most likely due to the sunlight and weather that it is exposed to.

Weathered Siding

Brick Siding

The brick siding appeared to be in generally serviceable to good condition. We did note isolated bricks that have cracking in their mortar joints. This is most noticeable at the headers of garage doors from a small amount of long term sag. Also, there are areas of isolated surface spalling of bricks.

Cracking Mortar Joint

Trim

Examples of Trim Rot and Deterioration

The areas heaviest rot and deterioration appear on the chimney enclosures. Also, we noted damage or broken trim in upper eaves. As is typical with most buildings in the complex, we noted a fair amount of rot that is not readily visible, since it has been painted over.

Roof


Examples of Roof Wear

There are signs of wear and age on the roof surface. This is most evident in some damage to roof shingles as well as the amount of granules that appear to have come loose from the shingles.

Roof Granules in Gutter

Miscellaneous

We noted a section of gutter downspout on the rear of the building that is wrapped in a garbage bag. We suspect this is due to leakage and a more permanent repair should be made.

We noted evidence of leakage behind a gutter on the front of the building. These stains are typically an indication of leakage due to improperly installed gutters (not properly behind the roof drip edge) or ice damming and related leakage.

Gutter Downspout Wrapped in Garbage Bag & Staining Behind Gutter

There is a section of gutter on unit #15 that appears to be pitched improperly. We noted standing water in this gutter. The gutter does not appear to be overly clogged with debris so the gutter should be properly re-mounted.

Improperly Pitched Gutter

BUILDING "C" (units #10, #14, #20, #24 and #28)

Vertical Siding

The vertical siding on this building appeared to be in generally serviceable condition. There are some isolated areas of deterioration in typical areas.

Cracking to Vertical Siding & Repair to Vertical Siding at Brick Ledge

We noted a repair that had been completed at the vertical siding and brick water table interface on unit #28. We suspect this was due to some amount of rot or deterioration.

Horizontal Siding

We noted areas of deteriorated and rotted clapboard siding, most notably under or near areas of gutters that appear to be leaking.

Rot at Gutter Ends
(Kick-out flashing is recommended at roof and siding interfaces above these gutter ends)

As is typical with most buildings, siding deterioration is concentrated around chimney enclosures. We noted two chimney enclosures that have been previously vinyl sided.

Rot at Roof Interface & Chimney Enclosure

Brick Siding

Brick on this building appeared to be in serviceable to good condition. We did note areas of isolated spalling. Also, there are areas in need of caulking and sealing between the veneer and adjacent siding or trim to eliminate gaps where pests could enter or nest.


Spalled Brick & Area to Seal Around Brick Veneer

Crack in Mortar Joint at Garage Header

Trim

In relation to damage caused by leaking gutters on the horizontal siding, we also noted rot and damage to trim due to leaking gutters. Also, we noted a relatively large amount of insect damage to the trim on this building.


Trim Damaged from Leaking Gutter & Trim Damage at Chimney Enclosure


Insect Damage to Trim (Carpenter Bees)

Roof

Signs of wear were noted on the roof surface, such as missing granules from the shingle surfaces. We also noted areas of moss growth. While this is not necessarily a sign of advanced deterioration, cleaning off moss is recommended.


Roof Surface with Significant Granule Erosion


Moss Growth and Trim Damage

BUILDING "D" (units #7, #9, #15, #19 and #21)

Vertical Siding

The vertical siding on this building appeared to be in generally serviceable condition with the exception of deterioration in typical areas, including interfaces with brick siding and roof surfaces.

Examples of Vertical Siding Areas of Deterioration

Horizontal Siding

This siding has isolated damage to chimney enclosures as well as cupping and twisting of clapboards. This is an indication of deterioration and weathering.

Deterioration and Cupping to Clapboards

Paint or Stain Showing Signs of Wear

Portions of the paint on the horizontal siding of this building are showing signs of wear. This is most likely due to weather exposure.

Brick Siding

The brick siding on this building appears to be in generally good condition. We noted at least one area of isolated damage to the brick water table and repair is recommended.

Damaged Brick with Deteriorated Siding and Trim

Trim

We noted areas with insect damage to the trim. Also, there are areas of trim that appear to have been damaged due to leaking gutters.

Insect Damage (Carpenter Bees) and Area of Deterioration at Chimney Enclosure

As noted with other buildings, we encountered areas of rot that have been painted over.

Examples of Rot Behind Coating & Damaged Trim with Gaps

Roof

The roof surface appears to be in generally serviceable condition with limited amounts of surface wear noted.

Roof Surface and Delaminating Paint on Trim

BUILDING "E" (units #29, #33, #37, #41 and #45)

Vertical Siding

Areas of wear were noted at brick siding water tables. Also, gaps were noted in vertical seams.

Deterioration at Roof Interface and Opening Joints

Examples of Deterioration at Brick and Roof Interfaces

Horizontal Siding

This siding has suffered typical damage at chimney enclosures. Also, we noted areas near gutter ends showing signs of deterioration. This is most likely due to leaks in these gutters along with a lack of kick-out flashing at roof and siding intersections.

Examples of Deterioration to Clapboards

Examples of Deterioration to Clapboards

We noted one chimney enclosure that has already been retrofitted with vinyl siding.

Brick Siding

The brick veneer appeared to be in generally good condition.

Trim

Isolated areas of rot and damage were noted to the trim. These were most prevalent at chimney surrounds. Also, exterior window trim and soffits were showing signs of deterioration. It is always possible to discover additional deterioration behind trim and siding, for all buildings, if removing and replacing materials.

Rot to Trim on Chimney Enclosures

Rot to Trim and to Soffits

Roof

An above average amount of deterioration was noted on the shingle surfaces. Also, some areas of damaged shingles were encountered.

Example of Roof Condition (Advanced Wear on this Building)

We noted a small valley that has been patched. This is most likely an indication of previous roof leakage.

Patched Valley/Intersection

BUILDING "G" (units #4, #8, #12, #16 and #20)

Vertical Siding

Deterioration was noted at interfaces with differing materials. Also, portions of the siding appear to be worn due to weather.

Deterioration at Deck & Roof Interfaces

Horizontal Siding

We noted areas of more severe damage to the clapboard siding. These are most notable at roof interfaces and on chimney closures. Better flow control of water from roofs is necessary in these areas along with better intersection and flashing details.

Examples of Deteriorated Clapboards

Examples of Deteriorated Clapboards

Brick

The brick veneer appeared to be in generally good condition. There were some minor isolated cracks noted in mortar joints. These are most notable at the headers of garage door openings from a small amount of long term sag.

Cracked Mortar Joint

Trim

We noted areas of rotted or damaged trim around most chimney enclosures. Also, areas of isolated damage were noted.

Examples of Deteriorated Trim

Examples of Deteriorated Trim

Roof

The roof surface appeared to be in generally serviceable condition. The shingles appeared to be in better than average condition in relation to other buildings.

Roof Surface

Miscellaneous

We noted vine growth on a chimney enclosure. It is recommended that vegetation be removed as its growth can become problematic to siding and trim.

Vine Growth

BUILDING "I" (units #77, #81, #83, #85, #87 and #91)

Vertical Siding

Some openings of seams were noted, as well as deterioration adjacent to brick ledges and roof interfaces.

Deteriorated Vertical Siding & Opening Vertical Seams

Horizontal Siding

Areas of deteriorating and delaminated paint/stain were noted. These are in areas that appear to be directly affected by water damage as well weathering. Isolated areas of damage were also noted on chimney enclosures as well as near roof interfaces.


Weathered and Damaged Siding & Paint/Stain and Siding with Water Damage


Water Damaged Clapboards & Missing Vinyl Siding on Chimney Enclosure

Brick

The brick veneer appeared to be in generally good condition.

Trim

As with most buildings, areas of isolated trim damage can be found on chimney surrounds. Also, we suspect there are areas with leaking gutters and a lack of kick-out flashing causing trim damage. We noted evidence of insect damage along various portions of the trim as well.

Trim Rot and Damage

Examples of Deteriorated Trim & Insect (Carpenter Bee) Damage

Roof

The roof surface appeared to be in average condition in comparison with other buildings. Some amount of deterioration and granule loss was noted.

Roof Surface

Miscellaneous

We noted that the soffit vent on unit #83 is damaged and presenting an entrance point for pests.

Soffit Vent to Repair on Unit 83

BUILDING "K" (units #17, #103, #105, #107 and #111)

Vertical Siding

Gaps and openings were noted in various areas of the vertical siding. In relation to other buildings, an average amount of deterioration was noted at brick ledges as well as at interfaces with roof surfaces.


Examples of Deterioration and Open Joints


Examples of Deterioration and Open Joints

Horizontal Siding

We noted that four of the chimneys have been retrofitted with vinyl siding. Because of this we suspect an above average amount of rot and deterioration most likely occurred in these areas. We noted areas with damage to the siding caused by defects in the wood, most notably some knots becoming loose and falling out.

We noted isolated areas on the clapboard siding that are showing signs of paint or stain delamination. These appear to be caused by a combination of water penetration as well as weathering.


Examples of Deterioration & Damage Due to Wood Quality


Examples of Delaminating Paint/Stain

Brick

The brick appeared to be in generally good condition.

Trim

We noted multiple areas of deteriorated trim at gutter ends. This indicates that some amount of leakage is most likely occurring and water is bypassing gutter ends from a lack of kick-out flashing.

Examples of Damage to Trim and Paint/Stain

Examples of Damage to Trim and Paint/Stain

Roof

The roof surface appeared to be in better condition as compared to most of the other roof surfaces. We did note at least one missing or damaged shingle. This may be due to a high wind weather event or an isolated incident causing the damage.

Roof Surface and Damaged Shingle

Miscellaneous

We saw an active insect nest on the right side of unit #111 adjacent to the garage. The homeowner was notified at the time of inspection.

Insect Nest (wasps)

BUILDING "M" (units #143, #145, #147, #151 and #155)

Vertical Siding

We noted an above average amount of warping and opening joints in the vertical siding. Also, as is typical with the other buildings, deterioration was noted at the base of the siding where it comes in contact with brick ledges and roof surfaces.

Opening Joints and Deterioration

Opening Joints and Deterioration

Horizontal Siding

Deterioration was noted to the clapboards and on many areas of chimney surrounds. Also, there appears to be gutter leakage causing damage to the siding.

Water Damage To Chimney Enclosures

Paint and stain delamination was noted in some areas with a higher chance of water penetration.

Clapboard Rot and Paint/Stain Delamination

Brick

Some cracks in mortar joints were noted at garage headers from long term sag. However, the brick siding appeared to be in serviceable condition.

Examples of Cracked Mortar Joints at Garage Headers

Trim

Isolated areas of damage were noted. These areas include chimney surrounds as well as lower portions of trim under windows. Some trim along roof surfaces is showing above average amounts of damage.


Examples of Trim Damage and Deterioration


Examples of Trim Damage and Deterioration

Roof

The roof surface appears to be in below average condition. We noted a damaged and missing shingle above unit #155.


Example of Worn Shingle Surfaces and a Missing Shingle Tab/Edge

While walking the roof we noted an area adjacent to the skylight above unit #143 that was soft underfoot. This could be due to past or present leakage in this area. We suggest that the area be inspected for signs of active leakage. When reroofing or repair occurs, the sheathing may need replacement in this area and a small amount of reinforcement could be required.

Soft Area of Roof

BUILDING "N" (units #163, #167, #171, #175 and #179)

Vertical Siding

Deterioration was noted at interfaces of different materials. Also, portions of the siding appear to be worn due to weather.

Signs of Deterioration and Wear

Signs of Deterioration and Wear

Horizontal Siding

This siding has experienced typical isolated damage around chimney enclosures as well as cupping and twisting of clapboards.

Examples of Water Damage

Portions of the paint or stain on the horizontal siding of this building are showing signs of wear. This is most likely due to weather exposure. Siding is cupping and curling and nails are coming loose from the siding.

Wear and Damage to Siding

Brick

The brick veneer appeared to be in generally good condition, with the exception of some isolated cracked mortar joints at garage headers due to long term minor sag.

Examples of Cracked Mortar Joints

Trim

As with most buildings, areas of isolated trim damage can be found around the chimney surrounds. Also, there are areas with leaking and bypassed gutters causing trim damage. We noted evidence of insect damage on various portions of the trim, including some window trim.


Examples of Trim Deterioration


Examples of Trim Deterioration

Roof

The roof surface appeared to be in generally serviceable condition. The shingles appeared to be in better than average condition in relation to the other buildings. However, we did note a repaired cricket at one chimney. Typically, this indicates past leakage.


Example of Shingle Condition & Repaired Roof/Chimney Cricket

BUILDING "P" (units #207, #22, #24, #30, #34 and #38)

Vertical Siding

The vertical siding on this building appeared to be in generally serviceable condition. With the noted exceptions of minor deterioration in typical areas including interfaces with brick siding and roof surfaces.

Horizontal Siding

Areas of deteriorating and delaminated paint/stain were noted. These are in areas that appear to be directly affected by both water damage and weathering.

Water Damaged and Weathered Paint & Deteriorated Clapboards

Isolated areas of damage were noted on chimney enclosures as well as at roof interfaces. We noted areas of siding pulling away from the wall sheathing.

Deterioration and Paint Delamination & Cupped and Warped Clapboards

Brick

The brick appeared to be in generally serviceable condition. As with many buildings, we found isolated areas of cracked mortar joints at garage door opening corners. Isolated damaged bricks were also noted.

Cracked Mortar Joint at Header & Damaged Brick

Trim

We noted areas of rotted or damaged trim around portions of most chimney enclosures. Also, areas of other trim damage were found.

Examples of Damaged and Deteriorated Trim

Roof

The roof surface appeared to be in generally serviceable condition. The shingles appeared to be in better than average condition as compared to other buildings.

Examples of Roof Surface

Miscellaneous

Gaps around Soffit Vent

We noted a soffit vent that is not properly installed. This should be reset in the soffit to reduce the risk of unwanted pest entry or nesting.

BUILDING "Q" (units #46, #50, #52, #58, #62 and #70)

Vertical Siding

Areas of open vertical joints were noted between siding. Also, there are areas of opening horizontal edges and weathered surfaces.

Examples of Weathered Siding with Opening Joints & Deterioration at Brick Ledge

Horizontal Siding

Areas of more severe damage were noted. These are typically isolated to the chimney enclosures that have not yet been sided with vinyl. Also, some cupping to the siding was noted on exposed surfaces.

Examples of Damage and Deterioration

Examples of Damage and Deterioration

Brick

Isolated areas of damage were noted. These includes some broken and spalling bricks. Also, cracked mortar joints exist at some garage door openings.

Damaged Bricks

Trim

Isolated areas of rot and damage were noted to the trim. These were most prevalent on chimney surrounds. Also, some exterior window trim and soffit areas are showing signs of deterioration.

Examples of Trim Rot and Deterioration

Roof

The roof surface appeared to be of average quality in comparison with other buildings. Some amount of deterioration and granule loss was noted. Also noted, are some damaged shingles on a chimney cricket that is showing more serve wear. Replacing several shingles on this cricket will likely be required prior to complete roof resurfacing.

Example of Shingle Condition & Damaged Shingle on Chimney Cricket

BUILDING "R" (units #96, #116, #120, #124 and #128)

Vertical Siding

Areas of wear were noted at interfaces of differing materials. Also, gaps were noted along vertical seams.

Examples of Deteriorated End Grain

Horizontal Siding

Examples of Trim Deterioration at Roof Interfaces

The clapboard siding has suffered deterioration at intersections of different materials. These areas appeared to have the highest concentration of deterioration.

Brick

The brick veneer appeared to be in generally good condition.

Trim

We noted areas of rotted or damaged trim around portions of most chimney enclosures. Also, areas of isolated deterioration and insect damage were noted.

Examples of Rot in Need of Repair and Gaps in Trim

Examples of Rot in Trim & Insect Damage (Carpenter Bees)

Roof

The roof surface appeared to be in above average condition when compared to the other roof surfaces of the complex.

Roof Surface

BUILDING "S" (units #136, #140, #144, #148 and #176)

Vertical Siding

Typical to most buildings, rot and deterioration was noted at intersections with differing materials. Also, areas of opening vertical joints are present.


Gaps in Vertical Joints & Significant Damage at Roof Surfaces

A repair to the intersection of the vertical siding and the roof of unit #176 was noted.


Deterioration at Brick Ledge & Repair to Lower Portion of Siding at Roof Surface

Horizontal Siding

We noted isolated areas of severe rot and damage to horizontal siding on this building. Portions of chimney enclosures contain the most concentrated deterioration. Also, areas of siding are showing weathering where exposed to an above average amount of sunlight.

Rotted Trim and Severely Weathered Siding

Examples of Deterioration to Siding and Paint/Stain

Brick

The brick veneer appears to be in generally good condition, with the exception of some minor, thin cracks noted at the top corners of garage door openings.

Cracking at Garage Header and Areas to Seal

Trim

Areas of rot and damage were noted to the trim. These were most prevalent along chimney surrounds. Exterior window trim and soffit areas are showing signs of deterioration as well.

Examples of Damage and Deterioration to Trim in Need of Replacement

Roof

The roof surface appeared to be of average quality in comparison with other buildings. Some typical deterioration and granule loss was noted.

Example of Roof Surface

ANALYSIS

Roof conditions vary on the buildings. This is most likely due to the age of each roof surface. Per information provided to us during a previous inspection, the roofs were replaced over a period of roughly five years. In general, the roof surfaces appeared to be in serviceable condition. We group the condition into three general categories. Buildings with the roof surfaces that appear to be in the best condition include buildings "D, G, K, N, P & R". The roofs in the mid-grade category include buildings "A, B, I, Q & S". The lower grade roofs include buildings "C, E & M". We anticipate obtaining additional serviceable life of 1 – 4 years, 4 – 7 years and 7 – 10 years from the roof surfaces respectively. Please note, these estimates can vary greatly depending on many factors including weather conditions, protection from these conditions, and the actual rate future wear.

There are areas of roof surfaces that have moss growth. Routine cleaning of these areas is recommended using a chemical solution sold commercially to kill moss and algae. This will help to reduce the rate of wear to the roofs that moss and similar growth can cause.

The brick siding appears to be in serviceable condition. Isolated areas of cracking or separation from wood siding should be repaired as necessary. Damaged bricks should be replaced and small cracks that open more can be caulked or repointed. It is important to maintain these to help prevent additional deterioration. We recommend that this brick siding be kept in service, since it is in generally good condition overall and is a low-maintenance siding.

In most areas, strictly from a "percent of overall area" standpoint, the wood clapboard siding is in generally serviceable condition. However, there is a large amount of damage around most chimney enclosures that have yet to be sided with vinyl. There is a large amount of damage adjacent to the ends of gutters and under valleys near chimneys and walls due to leaking ends of gutters and a lack of proper flashing, including kick-out flashing. Some of these isolated areas of damage are also the most severe.

In areas of clapboard siding that are in direct exposure to weather, twisting and cupping was noted. The continued replacement of siding on chimney enclosures with vinyl is recommended. It is important to pay special attention to flashing details during installation to ensure that water is kept from behind the new siding. Repair and replacement to portions of the overall clapboard wood siding will become necessary over time. This will most likely be due to continued weathering and wear. Also, because of moisture damage and weathering factors you may find areas that do not readily bond with reapplication of paints and stains. Eventual replacement with alternative materials will be warranted for this reason as well.

In general, the vertical lap siding is in need of the most repair or replacement in terms of a percentage of overall siding. As noted above, the most severe damage appears to be in clapboard siding, but this is more isolated to small areas (in terms of overall quantity of square feet of siding). The damage to the vertical lap siding is more uniform and widespread throughout. This is most notable in open gaps along seams as well as deterioration to the base of the siding at interfaces with other materials such as brick ledges, roofs, and wood trim. Gaps and openings in

the siding should be sealed to help prevent unwanted pest and water intrusion. However, over time, new gaps will open and existing gaps will reopen and grow. This is due to continued movement during seasonal temperature and humidity fluctuations, and the effects of rain and moisture penetration. The deterioration to the base of this type of siding is most likely due to flashing details at the interface of the dissimilar materials, along with the tendency of the open grain ends of this siding to wick moisture up from capillary action. The end grain of wood is susceptible to wicking and absorbing moisture, especially with this vertical siding. This will lead to faster rates of deterioration. We did note at least two areas of repairs to base of vertical siding. These were on buildings "C" and "S". These appear to be effective short term solutions. However, the potential for ongoing damage will still be present.

In general, the areas in need of most immediate repair and/or replacement are the existing wood chimney enclosures. Continued replacement of these enclosures with a more rot resistant material, such as vinyl siding, is recommended. As noted above, special attention must be paid to the specific flashing needs of each enclosure. Due to the differing roof pitches and angles at each enclosure, the siding is at a high risk for water penetration and proper, improved flashing is critical.

Replacement of more of the vertical wood siding is also recommended. Replacement should begin in the most worn areas. Because damage is fairly widespread and relatively consistent it is difficult to prioritize areas. If it is decided not to replace this siding, at a minimum, we recommend modifications to the flashing and trim where the vertical siding intersects differing materials and partial replacement of deteriorated areas and deteriorated bottom portions at intersections. Due to the relatively high number of differing material interfaces as well as varied roof pitches and elevations, special consideration must be paid to the flashing around the siding. Proper flashing will be critical to the performance of any repairs that are made. Even with the installation of a rot resistant material such as vinyl, it is important to ensure that water is kept from behind the siding as much as possible. Moisture penetration can lead to rot of sheathing and framing members. Also, water damaged wood can attract unwanted pests.

As repairs to the siding are completed, attention should also be paid to the trim. We noted many areas of trim rot and damage. Also, as repairs are made and conditions behind siding and trim are revealed, other deterioration will likely be found. This increases the cost and scope of repairs. During our evaluation we found areas throughout the property that did not appear to be damaged at first glance, but when examined closely damage was found. We did not probe most siding and trim, and such invasive investigation can sometimes reveal more damage as well. Rotted or deteriorated trim should be repaired or replaced in conjunction with any siding improvements that are made.

Please note that the availability of higher grade wood siding has decreased over the years. Therefore, the highest grade wood siding comes at a cost premium. If wood siding is decided upon for replacement, you may find that its life span is less than anticipated or possibly less than the original siding used for the buildings. This would be due to quality differences in the wood. Common modern siding materials that are considered to be lower-maintenance include vinyl and cement board. Typically, cement board has the appearance of traditional wood siding. However,

installation costs are typically higher than vinyl. Also, these surfaces often need to be repainted over time (although less frequently than wood). Replacement vinyl siding has already been used on several chimney enclosures. Therefore, continued use of this material would provide consistency. With any siding material there are multiple options for quality and appearance. These would best be discussed with several siding contractors.

CONCLUSIONS AND RECOMMENDATIONS

Typically, we recommend replacing roofs nearing 20 years of age. Compiling a replacement schedule based on known ages as well as our groupings of general condition noted above is recommended. Resurfacing entire buildings at once, rather than separate townhouses or areas of buildings, is strongly recommended.

Our offered siding option recommendations remain unchanged from our previous report. Exploring these options with multiple siding contractors is strongly recommended to obtain a better understanding of actual costs of various siding and trim combinations. These options include:

- Option #1: Replace all of the wood siding with newer vinyl siding, as well as cover trim with aluminum and replace deteriorated trim. Both the vertical wood siding and the horizontal wood siding would have horizontal, standard vinyl siding. Flashing would be improved. Maintain brick siding.
- Option #2: Replace all of the wood siding with newer vinyl siding, as well as cover trim with aluminum and replace deteriorated trim. The vertical wood siding would have new vertical vinyl siding and the horizontal wood siding would have matching horizontal vinyl siding. Flashing would be improved. Maintain brick siding.
- Option #3: Continue to stain or paint the horizontal wood siding and related wood trim every five years, while replacing rotted and damaged pieces, improving flashing and replacing the vertical wood siding with a low maintenance vinyl siding. Maintain brick siding.
- Option #4: Continue to stain or paint the existing horizontal wood siding and replace all vertical wood siding over the next one to four years with new vertical wood siding. Replace deteriorated horizontal wood siding and trim as needed. Maintain brick siding.
- Option #5: Replace all wood siding and trim with new wood materials to match original materials as much as possible. Maintain brick siding.

The replacement and modifications noted in Options #1 and #2 are our preferred strategy. This will help to reduce the amount of routine maintenance as well as limit the amount of repairs needed due to water damage and other weather related issues. These options will also eliminate the need for most periodic painting and staining of the buildings. At routine intervals this maintenance becomes costly. These reasons are included in our belief that vinyl siding is the best long term solution.

Options #3 and #4 will require ongoing maintenance. These costs may become significant over time. Also, if flashing repairs prove to be inadequate, further deterioration and subsequent repairs will become necessary. Over time, as existing siding continues to age and wear it will still need replacement.

With the higher upfront principle costs associated with Option #5, as well the periodic maintenance that will become necessary, we view this as the least favorable option. Replacement in-kind with wood siding and trim may also have a shorter life span than replacement with vinyl due to difficulties on obtaining any high quality, rot-resistant siding.

After further research and evaluation of the siding options, our initial budgeting costing is unchanged. The general budgeted costs per building are listed below. As stated before, we are not contractors and we do not perform this type of work. Obtaining actual estimates and quotations from several contractors is necessary for accurate budgeting and comparison purposes.

- Option #1: $47,000 (one-time, 40+ year vinyl siding)
- Option #2: $52,000 (one-time, 40+ year vinyl siding)
- Option #3: $18,000 (one-time, 40+ year vertical vinyl siding), plus $17,000 every 5 years to stain the building and replace rotted trim and damaged horizontal siding.
- Option #4: $29,000 (one-time, 20+ year wood vertical siding), plus $22,000 every 5 years to stain the building and replace rotted trim and wood siding.
- Option #5: $79,000 (one-time, 20+ year wood siding and trim), plus $20,000 every 5 years to stain the building and replace damaged materials.

Again, we <u>strongly recommend</u> obtaining actual quotations from contractors for the options that you are primarily considering. Our budget estimates are derived from cost estimating manuals and online resources. These should not be viewed as definitive costs. Please note that quotations from contractors can vary over time. This can be due to changes in labor costs, demand for services and overall construction activity in the region. We note this, as you may find significant fluctuations in the quotations in comparison to the budgeted numbers provided.

Very truly yours,

Thomas D. Wurzer, P. E.
NYS Licensed Professional Engineer #073747
NYS Licensed Home Inspector #16000012228

MBP/skh

AGREEMENT FOR INSPECTION

This is to confirm that [Client Names] have retained Warren Engineering (the inspector) to inspect the property at [Street Address, City, State] on [Date] at [Time].

Type of inspection chosen:

Standard

Inspection of siding and roofing for five (5) of the nineteen (19) buildings of the townhouse complex. The five buildings will not include buildings "C" or "S". Provide professional opinion of siding and roofing condition and remaining life. Provide probable costs of maintenance to siding versus cost of replacement with other materials such as vinyl or Hardi-board materials. For the roofs give an estimated remaining life, but no probable costs.

This is a limited inspection based on visible evidence readily available during the inspection (without moving furnishings, etc.) and is the opinion of the engineer performing the inspection. **It is not a guarantee or warranty regarding the condition of this building and it is agreed that inspector's liability will be limited to the amount of the fee charged.**

Home inspectors are licensed by the NYS Department of State. Home Inspectors may only report on readily accessible and observed conditions as outlined in this pre-inspection agreement, Article 12 B of the Real Property Law and the regulations promulgated thereunder including, but not limited to, the Code of Ethics and Regulations and the Standards of Practice as provided in Title 19 NYCRR Subparts 197-4 and 197-5 et seq. Home inspectors are not permitted to provide engineering or architectural services. As professional engineers, we are permitted to provide engineering services, if required as part of the inspection process.

If immediate threats to health or safety are observed during the course of the inspection, the client hereby consents to allow the home inspector to disclose such immediate threats to health or safety to the property owner and/or occupants of the property.

ACCEPT STANDARD INSPECTION: FEE: $ (as quoted)

_____ _____

Client Signature (One signature binds spouse or other related buyers) Date

Comprehensive Inspection

An exhaustive structural inspection to identify significant deficiencies and/or repairs needed. This inspection is not limited to readily visible evidence and will usually include: Much greater on site time by the inspector; invasive testing and probing as needed to determine structural condition; exploratory dismantling as needed; services provided by other contractors and consultants; other laboratory or instrument testing.

ACCEPT COMPREHENSIVE INSPECTION: FEE _____ (A minimum of $4,000 but will be dependent on scope agreed upon)

_____ _____

Client Signature (One signature binds spouse or other related buyers) Date