



Building Pathology Report

Seaforth, Ontario

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1.01 Building Pathology Methodology

- a. Building Pathology is a term “used to define a holistic approach to understanding buildings. Such an approach requires a detailed knowledge of how buildings are constructed, used, occupied, and maintained, and the various mechanisms by which their structural, material and environmental conditions can be affected.”
- b. The Edifice Building Pathology Investigation is intended for the discovery of serious faults in the building albeit whether it is for structural or cosmetic or any other reason; is a comprehensive investigation of the historic fabric of the subject building to ascertain any dangers from rot, animal infestation, neglect or additions or unsympathetic alterations or modernization. It is not just the facts which are highlighted, but the possible causes of the obvious and not so obvious damage as well as possible and probable faults that could surface in the near future. From that, we can determine a course of action to remedy the situation.

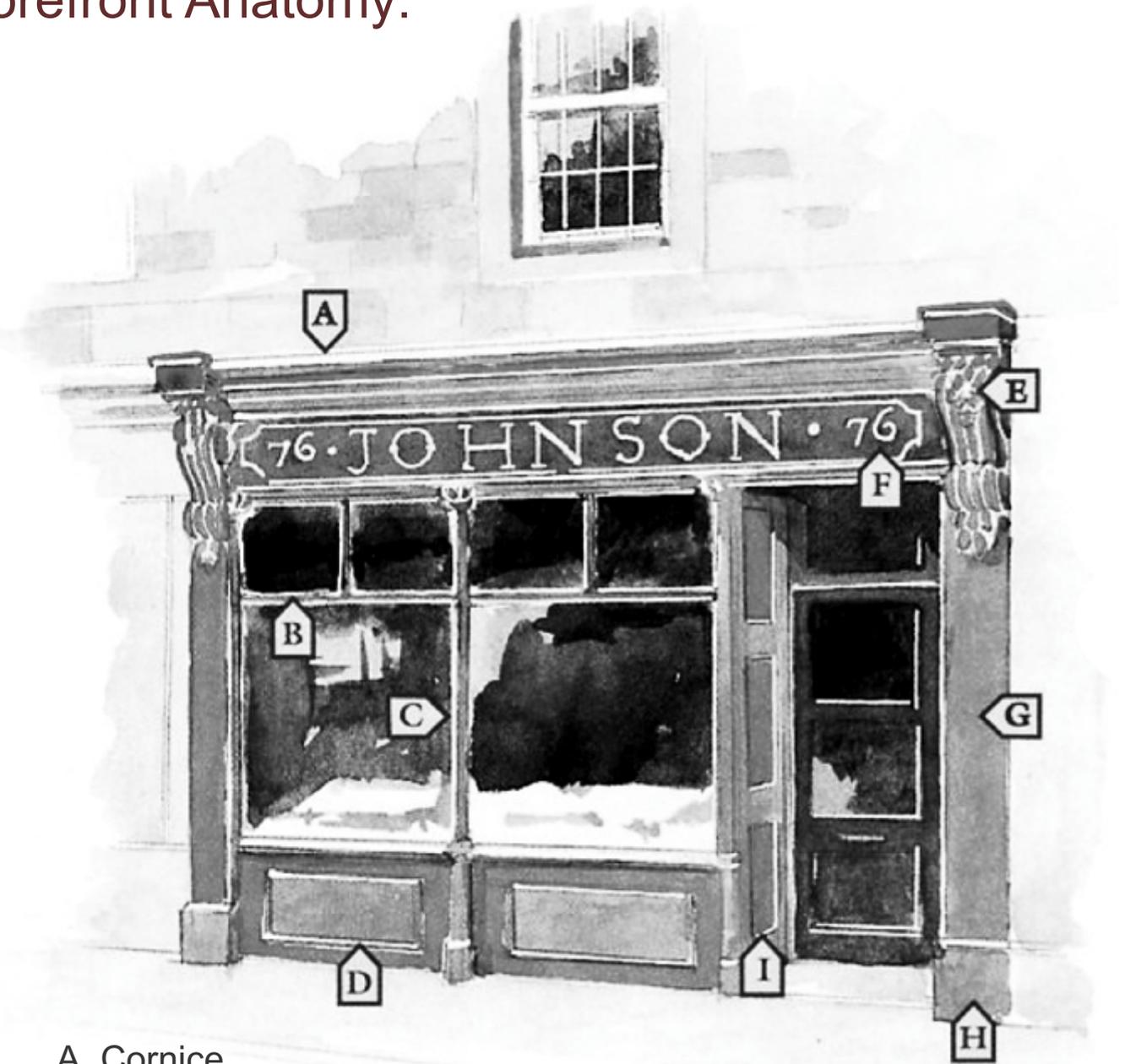
Our reports are written in plain English and we include footnotes to explain any technical terms if necessary. We write our reports with the reader in mind and we include annotated photographs.

- c. Any structural issues which will be noted within the report must be addressed by a Professional Engineer, and no recommendation of the same shall be given or implied. This service will not recommend any products or services which, in the opinion of Edifice, will be detrimental to the health of the building envelope or historically incorrect for the style era.
- d. Storefronts in the historic environment 'Informed conservation' means understanding the historical development, and significance, of your building or area and identifying the most appropriate approach to its management.
- e. Where original, or historic, storefronts remain intact they should always be retained and repaired or restored where possible. Where enough evidence remains to accurately reconstruct an historic shopfront which is mostly or totally lost, this is also firmly encouraged.
- f. Historic town centres are in danger of losing their individual identity and special character through the replacement of traditional storefronts with modern, unsympathetic frontages. Extensive town centre redevelopment schemes and the desire for corporate imagery by large multi-national retailers means that traditional storefronts are being gradually eroded. Retail design forms part of the cultural and social history of our urban areas and the presence of traditional designs makes a significant contribution to the architectural merit of townscapes, a factor so important for encouraging tourism.

2.01 Type of Report

- a. This report has been completed in brief. The purpose of this report is to provide a summation of the building(s) facades as a whole and does not point out any deficiencies that could not be viewed from street level on public property. If the existing building(s) has other internal issues, a full Pathology Report is recommended with a complete building survey to create as-built drawings.

Storefront Anatomy:



A. Cornice

B. Transom

C. Mullion

D. Stallriser

E. Console Bracket

F. Fascia Board (Sign Board)

G. Pilaster

H. Plinth

I. Storm Door



1-3 a. The flashing located at the upper roof parapet wall and above the fascia board shows some areas of deterioration and may have not been caulked properly. I have noted that the flashing at the junction of this building and the building to the south may not have been caulked or let into the masonry properly and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

1-3 b. The main above-grade masonry exterior cladding is in fair condition with several areas of deterioration due to miss-managed roof water, however, cement has been used to fill voids in the original all lime-based mortar which is very damaging. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Any spalled (broken-off) brick or washed out mortar should first be investigated as to the reason why they have spalled or washed out i.e. broken or cracked caulking around windows, Portland cement, landscape material too close to masonry, bad eavestroughs and downspouts or flashing, generally spalled masonry, and washed out mortar are a symptom of a moisture problem and should be repaired (water issues) as a priority.

1-3 c. Ancillary side walls were traditionally pargeted with a suction bond of lime mortar. Concrete pargetting will hold copious amounts of moisture between the soft brick and the concrete parget itself causing massive spalling issues destroying the underlining brick during freeze and thaw cycles. Cementitious materials should be removed wholesale and the entire wall pargeted with an all lime suction bond to allow the transmission of moisture to the exterior.

1-3 d. All the main structural masonry support pilasters have deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding.

Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

1-3 e. A significant bulge in the masonry below the sill noted, is a clear indicator of water finding its way between the wythes of the brick below. An investigation of the brick mortar and caulking will need to be made to see where the water is entering the brick wythes. This area may need to be rebuilt if the mortar has failed.

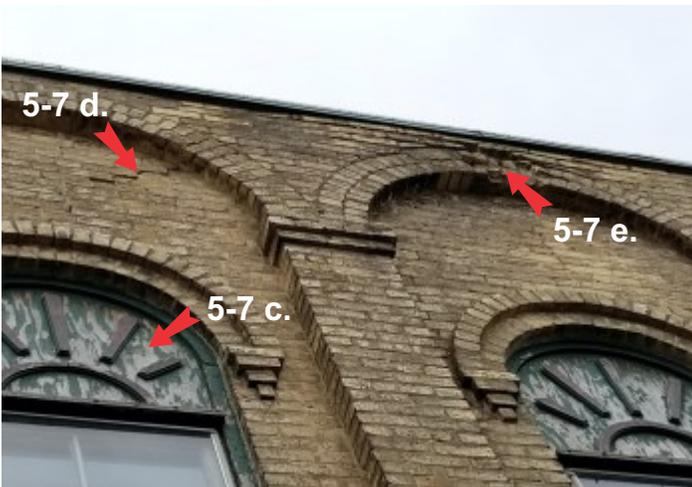
1-3 f. The building has timber sub-sills under the majority of the existing windows. There are signs of deterioration and loss of the paint surface. These sub-sills should be scraped, and any areas of rot repaired with a two-part epoxy system and repainted. Sills and sub-sills should never be caulked on the bottom as this can create issues with the passage of moisture which can rot out the sill and the sub-sill.

1-3 g. Through wall air conditioners should be designed to allow any moisture (created by the AC unit) to flow outside of the wall surface, preferably via a hose to the sidewalk.

1-3 h. This guard may not be adequate as per the Ontario Building Code.

1-3 i. These cast-iron brackets are lovely and very character defining. However, one bracket is missing to the north allowing no support for the balcony above. These brackets should be inspected thoroughly to see if they are anchored securely and not corroded.

1-3 jk. Much of the decking and the sub-structure is fraught with cuboidal wet rot and is very unsafe. The balcony needs to be replaced wholesale and should not have access to it by human occupants until these issues are remediated.



5-7 a. The flashing located at the upper roof parapet wall and above the fascia board and console bracket flashing shows some areas of deterioration and may have not been caulked properly. I have noted that the flashing at the junction of this building and the building to the south may not have been caulked or let into the masonry properly and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

5-7 b. All the main structural masonry support pilaster plinth has deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

5-7 c. Many areas on this building are using plywood as cladding or to fill-in upper portions of windows. Interior or construction grade plywood is not a satisfactory material unless it is rated for exterior uses such as MDO (medium density overlaid plywood). All areas of painted timber (i.e. console brackets) should be scraped and repainted.

5-7 d. The exterior brick work has many areas over windows with pronounced pyramidal cracks. Many of these types of cracks may have appeared in the first decade after original construction due in part to excessive shrinkage of wooden window frames and lintels. However, it can also indicate a problem with rot and the masonry has shifted.

5-7 e. The main above-grade masonry exterior cladding is in fair condition with several areas of deterioration due to miss-managed roof water, however, cement has been used to fill voids in the original all lime-based mortar which is very damaging. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is

very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Any spalled (broken-off) brick or washed out mortar should first be investigated to the reason why they have spalled or washed out i.e. broken or cracked caulking around windows, Portland cement, landscape material too close to masonry, bad eavestroughs and downspouts or flashing, generally spalled masonry, and washed out mortar are a symptom of a moisture problem and should be repaired (water issues) as a priority.

5-7 f. This building employs cast-iron columns to support the main beam which in-turn supports the upper levels. Some signs of corrosion have been noted. These columns should be inspected more closely to see if they still have structural integrity at their bases. Rust should be wire-brushed and the whole of the column kept well painted.

5-7 g. The main timber beam supporting the upper levels is exposed and shows signs of deterioration. This should have a paint film applied to protect it from the elements. Any rot areas should be repaired with a two-part epoxy or replaced wholesale.

5-7 h. The joint between this building and the adjacent building should be kept well pointed with lime mortar to not allow water to penetrate, which could create a spall condition.



9-11 a. All the main structural masonry support pilaster plinth has deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

9-11 b. The flashing located at the upper roof parapet wall appears to be in excellent condition. However, the fascia board and console bracket flashing shows some areas of deterioration and may have not been caulked properly or let into the brick work and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause a problem with damp and spalling of masonry units.

9-11 c. The main above-grade masonry exterior cladding is in very good condition! However, there are several areas of deterioration due to (former) mismanaged roof water. Water and soluble salts which

destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Any spalled (broken-off) brick or washed out mortar should first be investigated to the reason why they have spalled or washed out i.e. broken or cracked caulking around windows, Portland cement, landscape material too close to masonry, bad eavestroughs and downspouts or flashing, generally spalled masonry, and washed out mortar are a symptom of a moisture problem and should be repaired (water issues) as a priority.

9-11 d. All areas of painted timber (i.e. console brackets and original window trim) should be scraped and repainted.



13 a. All areas of painted timber (i.e. console brackets and original window trim) should be scraped and repainted. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

13 b. All the main structural masonry support pilaster plinth has deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

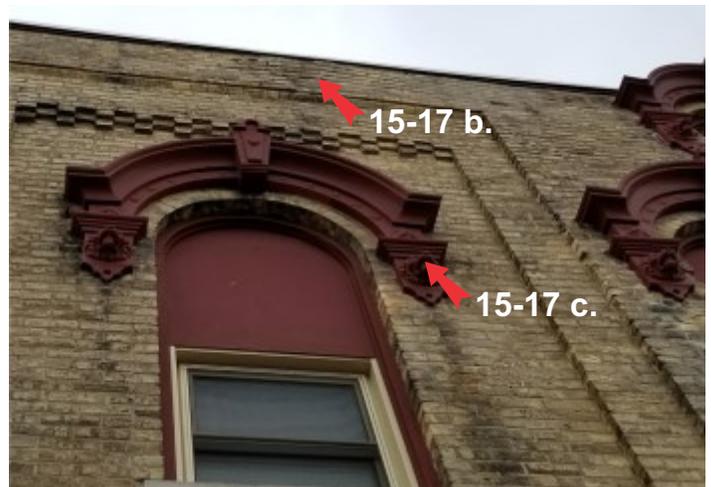
13 c. The flashing located at the upper roof parapet wall appears to be in excellent condition. However, the fascia board and console bracket flashing shows some areas of deterioration and may have not been caulked properly or let into the brick work and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

13 d. This building employs cast-iron columns to support the main beam which in turn supports the upper levels. Some signs of corrosion have been noted. These columns should be inspected more closely to

see if they still have structural integrity at their bases. Rust should be wire-brushed and the whole of the column kept well painted.

13 e. Many areas on this building are using plywood to fill-in upper portions of windows. Interior or construction grade plywood is not a satisfactory material unless it is rated for exterior uses such as MDO (medium density overlaid plywood).

13 f. The main above-grade masonry exterior cladding is in very good condition! However, there are several areas of deterioration due to (former) mismanaged roof water. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Any spalled (broken-off) brick or washed out mortar should first be investigated to the reason why they have spalled or washed out i.e. broken or cracked caulking around windows, Portland cement, landscape material too close to masonry, bad eavestroughs and downspouts or flashing, generally spalled masonry, and washed out mortar are symptoms of a moisture problem and should be repaired (water issues) as a priority.



15-17 a. The flashing located at the upper roof parapet wall appears to be in good condition. However, the fascia board flashing shows some areas of deterioration and may have not been caulked properly or let into the brick work and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

15-17 b. The main above-grade masonry exterior cladding is in fair condition! However, there are several areas of deterioration due to miss-managed roof water, possibly in the past. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Any spalled (broken-off) brick or washed out mortar should first be investigated to the reason why they have spalled or washed out i.e. broken or cracked caulking around windows, Portland cement, landscape material too close to masonry, bad eavestroughs and

downspouts or flashing, generally spalled masonry, and washed out mortar are a symptom of a moisture problem and should be repaired (water issues) as a priority. There is a considerable bulge in the wall which could indicate freeze and thaw damage which should be addressed to reset the affected areas.

15-17 c. This building has beautiful and very character defining cast iron hood mouldings and label-stops. As these are very heavy a periodical inspection should be made that they are affixed to the building properly e.g., metal fasteners let into the surrounding brick works are not corroded or missing.



19-27 a. The flashing located at the upper roof parapet wall appears to be in very poor condition and needs to be replaced wholesale. The fascia board flashing shows some areas of deterioration and may have not been caulked properly or let into the brick work and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

19-27 b. The original brick sub-sill is in very poor condition. It has gone through many freeze and thaw cycles which has destroyed the sub-sill. This sill should be replaced wholesale.

19-27 c. All areas of painted timber should be scraped and repainted. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

19-27 d. A main structural masonry support pilaster plinth and other lowers sections of brick work

has deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.



33 a. The flashing located at the upper roof parapet wall appears to be in excellent condition. However, the projecting fascia/frieze board shows some areas of deterioration and may have not been caulked properly or let into the brick work and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

33 b. The exterior brick work has a few areas with pronounced pyramidal cracks. Many of these types of cracks may have appeared in the first decade after original construction due in part to excessive shrinkage of wooden window frames and lintels. However, it can also indicate a problem with rot and the masonry has shifted.

33 c. This building has wooden elements in direct contact with masonry and concrete. Timber elements and masonry with the potential of sustained damp (e.g., sidewalks and in the instance a concrete or masonry plinth allowing ponding) will prematurely rot the timber. All timber should be terminated at least 1" above ground surface masonry.

33 d. Lower sections of brick work has deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

33 e. This building has beautiful and very character defining cast or cut stone hood mouldings and label-stops with a central key stone. As these are very heavy

and usually are installed in several sections a periodical inspection should be made that they are affixed to the building properly e.g., the mortar is well pointed into the surrounding brick works and is not allowing water to get between the mouldings and the underlying brick work which could become dislodged in a freeze and thaw cycle.

33 f. I noted some area of brick which is painted, these areas should be touched up periodically.

33 g. All areas of painted timber should be scraped and repainted. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

33 h. This building has an exterior basement hatch. An inspection of the doors should be made periodically as to their structural integrity to be walked on by the public. Inspect to see if water is finding its way into the building and causing damage, replace or add flashing as needed.

33 i. This building employs a cast-iron columns to support the main beam which in-turn supports the upper levels. Some signs of corrosion have been noted. These columns should be inspected closer to see if they still have structural integrity at their bases. Rust should be wire-brushed and the whole of the column kept well painted.

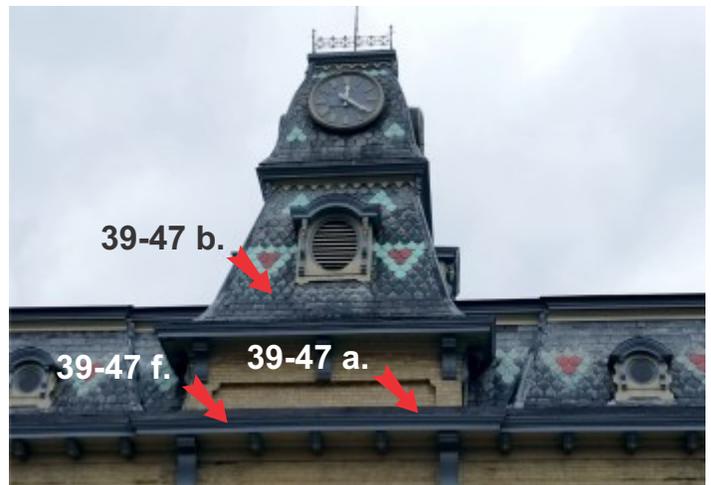


35-37 a. The flashing located at the upper roof parapet wall appears to be in excellent condition. However, the projecting fascia/frieze board may have not been caulked properly or let into the brick work and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

35-37 b. This building has beautiful and very character defining pediments above the second level windows. As these are very heavy a periodical inspection should be made that they are affixed to the building properly e.g., the flashing is in good repair and properly let into the surrounding brick works. The mortar around the flashing should be well pointed into the surrounding brick works and is not allowing water to get between the pediments and the underlying brick work which could become dislodged in a freeze and thaw cycle.

35-37 c. The console bracket shows some areas of deterioration to the south and may have not been flashed properly which can cause erosion of the neighbouring console bracket. Provide adequate flashing to protect both buildings console brackets from affecting each other.

35-37 d. The main above-grade masonry exterior cladding is in fair condition! However, there are several areas of deterioration due to miss-managed roof water, possibly in the past. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.





39-47 a. The flashing located at the upper roof parapet wall appears to be in fair condition, however, should be inspected for corrosion and or leaks on a regular basis. The fascia board and console bracket shows some areas of deterioration and may have not been caulked properly or let into the brick work and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

39-47 b. The slate roof in general looks to be in fair condition, however slate roofing has a life expectancy of between 75 and 130 years. I have noted some broken and missing tiles and some poorly executed flashing especially around the lucarnes (small dormers with oculus windows) on the mansard roof. Broken slate tiles should be professionally replaced as required and all flashing should be kept in check.

39-47 c. Some of the brick work on this building has been media blasted. Media blasting or water blasting is not acceptable on any heritage materials. Such unsympathetic works will destroy the brick work (as noted) as the masonry units are not hard enough to withstand such abrasive cleaning techniques. The entire wall will need to be pargeted with an all lime suction bond to allow the transmission of moisture to the exterior, or the brick needs to be replaced wholesale.

39-47 d. The console bracket shows some areas of deterioration and may have not been flashed properly which can cause erosion. Provide adequate flashing to protect the console brackets from rot etc. All areas of painted timber on the building as a whole should be scraped and repainted. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

39-47 e. This building has beautiful and very character defining cast or cut stone hood mouldings and label-stops with a central key stone. As these are very heavy and usually are installed in several sections a periodical inspection should be made that they are affixed to the building properly e.g., the lime mortar is

well pointed into the surrounding brick works and is not allowing water to get between the mouldings and the underlying brick work which could become dislodged in a freeze and thaw cycle. On my visit a keystone (as noted) was separated from the wall.

39-47 f. All areas of painted timber (i.e. console brackets and original window trim) should be scraped and repainted. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

39-47 g. The main above-grade masonry exterior cladding is in fair condition! However, there are several areas of deterioration due to miss-managed roof water, possibly in the past. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

39-47 h. In the accompanying image (2012) some ponding was detected on the projecting architrave / pediment. This area should be inspected for proper drainage and the integrity of the roofing material. A leak could cause a rot condition and failure.



49 a. The flashing located at the upper roof parapet wall appears to be in fair condition, however, it has been installed rather awkwardly, especially to the south where it is wrapped around the soffit, which could in the future hold moisture and water against the wooden soffit. The flashing also covers a character defining cornice moulding which is unsympathetic to the heritage fabric of the building.

49 b. I am unsure why a piece of plywood has been added to the adjacent buildings pilaster.. see 51 Main Street.

49 c. The exterior brick work has a few areas with pronounced pyramidal cracks. Many of these types of cracks may have appeared in the first decade after original construction due in part to excessive shrinkage of wooden window frames and lintels. However, it can also indicate a problem with rot and the masonry has shifted. Keep pyramidal cracks well pointed with an all lime based mortar, consult a structural engineer if the crack widens or becomes unstable. The main above-grade masonry exterior cladding is in fair to poor condition! There are several areas of deterioration due to miss-managed roof water, possibly in the past.

Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

49 d. The flashing at the fascia board location is in poor condition and should be repaired or replaced wholesale.

49 e. Areas denoted require proper flashing to stop erosion and cracking of the form-a-stone material below.



51 a. The flashing located at the upper roof parapet wall appears to be in very poor condition. The projecting fascia/frieze board shows some areas of deterioration and may have not been caulked properly or let into the brick work and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

51 b. As per 51 a., a definite leak is present in the flashing at the fascia/frieze board above. The flashing should be replaced or repaired immediately before greater damage is sustained.

51 c. The main above-grade masonry exterior cladding is in poor condition! There are several areas of deterioration due to miss-managed roof water, possibly in the past. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

51 d. There are many small draw rods and plates on the second-floor façade. These should be inspected that they are not loose and or corroded rendering them non-functioning. Replace if necessary, however, this is not a DIY project! A professional familiar with this support system must be engaged.

51 e. The building has timber sub-sills under the majority of the existing windows. There are signs of deterioration and loss of the paint surface. These sub-sills should be scraped, and any areas of rot repaired with a two-part epoxy system and repainted. Sills and sub-sills should never be caulked on the bottom as this can create issues with the passage of moisture which can rot out the sill and the sub-sill. However, in this case the sub-sill should be pointed with an all lime based mortar below. Lime mortar allows the transmission of damaging moisture and water.

51 f. A section of the upper pilaster is covered with plywood. If this is covering-up damage to the brick work repair as noted above.



51 a. The flashing located at the upper roof parapet wall appears to be in very poor condition and should be replaced as there is considerable erosion of the masonry below. The projecting fascia board flashing is oddly executed inspect to see if it has been caulked properly or let into the brick work. If not properly sealed it may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

51 b. The main above-grade masonry exterior cladding is in poor condition along the parapet! There are several areas of deterioration due to mis-managed roof water (e.g. flashing). Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.



55-57 a. The flashing located at the upper roof parapet wall appears to be in good condition. Some areas are not executed very well and may cause water issues in the future and should be repaired and or replaced specifically the bookend junction between the north and south buildings.

55-57 b. The main above-grade masonry exterior cladding is in poor condition in some areas! There are several areas of deterioration due to miss-managed roof water, possibly a flashing issue. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

55-57 c. The projecting fascia board flashing is bulged along its length, inspect to see if it has been caulked properly or let into the brick work. If not properly sealed it may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

55-57 d. There are draw rods and plates on the second-floor façade. These should be inspected that they are not loose and or corroded rendering them non-functioning. Replace if necessary, however, this is not a DIY project! A professional familiar with this support system must be engaged.

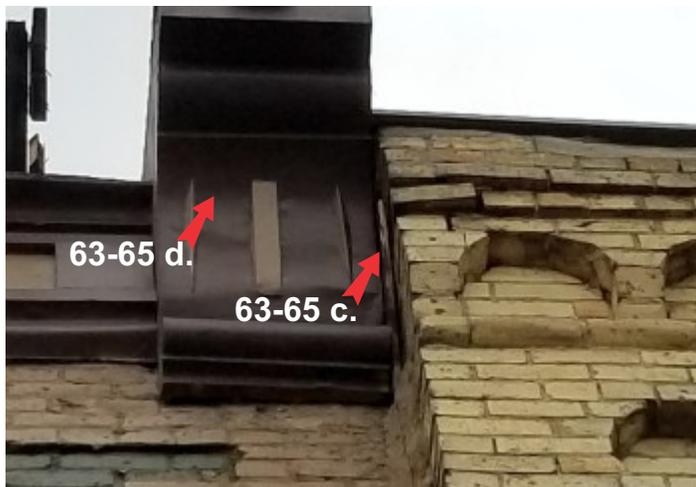


59-61 a. This building has very unique metal capitols on the brick pilasters. These need to be scraped, wire brushed then primed and painted to protect from corrosion. I noted mortar missing... keeping these joints properly pointed is very important to arrest the corrosion of the metal and stopping any water from getting behind the capitols. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

59-61 b. The main above-grade masonry exterior cladding is in poor condition in some areas! There are several areas of deterioration due to miss-managed roof water. There may be loose bricks at the junction of the building located to the south. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. The exterior brick work has a few areas with pronounced pyramidal cracks. Many of these types of cracks may have appeared in the first decade after original construction due in part to excessive shrinkage of wooden window frames and lintels. However, it can also indicate a problem with rot and the masonry has shifted. Keep pyramidal cracks well pointed with an all lime based mortar, consult a structural engineer if the crack widens or becomes unstable.

59-61 c. The upper level windows are very character defining and rare and should be restored at all costs and fitted with an appropriate custom wood storm, which will render the windows more energy efficient than any replacement.

59-61 d. The joint between this building and the adjacent building should be kept well pointed with lime mortar to not allow water to penetrate, which could create a spall condition.



63-65 a. Clearly there has been a complete failure of the fascia and soffit. This may be due to weakening of the brick and brick mortar from a former fire (building was once three storeys). Extreme heat from a fire can destroy lime mortar rendering it structurally un-sound. However, this could also be an issue with leaking flashing and water dislodging the masonry through freeze and thaw actions. A thorough inspection with respects to the structural integrity of the existing brick works need to be done prior to implementing repair works. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement as it will not bond properly to the existing masonry.

63-65 b. There are draw rods and plates on the second-floor façade. These should be inspected that they are not loose and or corroded rendering them non-functioning. Replace if necessary, however, this is not a DIY project! A professional familiar with this support system must be engaged. The building has a definite bow in the façade where the draw rods and plates are located with pronounced pyramidal cracks which has been repaired at some point and may be stable. Keep an eye on widening cracks or bulges and engage a professional structural engineer to provide remedy immediately.

63-65 c. The joint between this building and the adjacent building should be kept well pointed with lime mortar to not allow water to penetrate, which could create a spall condition.

63-65 d. The metal soffit, fascia and console brackets are very character defining and should be maintained as they have been. I trust the missing sections blown down in the wind storm has been retained for restoration and re-installation.

63-65 e. The projecting fascia board flashing is well executed, inspect periodically to see if it has been caulked properly or let into the brick work. If not properly sealed it may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.



67-69 a. The exterior brick work has a very pronounced pyramidal crack on the south east corner. Many of these types of cracks may have appeared in the first decade after original construction due in part to excessive shrinkage of wooden window frames and lintels. However, it can also indicate a problem with rot and the masonry has shifted. This crack should be filled with a all lime based mortar and inspected regularly to see if the crack reopens or widens. Keep an eye on widening cracks or bulges and engage a professional structural engineer to provide remedy immediately.

67-69 b. Regularly inspect eavestroughs for leaks and repair or replace as necessary.

67-69 c. The projecting fascia board flashing is in fair condition, inspect periodically to see if it has been caulked properly or let into the brick work. If not properly sealed it may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

67-69 d. The main above-grade masonry exterior cladding is in fair condition with a few deteriorated and in some cases missing bricks. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

67-69 e. All areas of painted timber (i.e. console brackets and original window trim) should be scraped and repainted. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding (as noted) and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

67-69 f. The front corner of the building has wonderful carved limestone pilasters with considerable erosion. Water and soluble salts which destroy lime mortar and, in this case, cut limestone must be kept in check therefore keeping these joints properly pointed is very important to the health of the limestone pilasters.

Repointing of the stonework should be done utilizing only lime-based mortar devoid of any cement. There are many conservation products with a long history of success available to completely restore these pilasters back to their original condition. As per 67-69 h. a cut stone sill is in poor condition. A detailed inspection must be made to investigate why this sill has cracked and deteriorated, most likely water damage. The same conservation products can be used as noted above to remediate the repair.

67-69 g. This building has beautiful and very character defining cast iron hood mouldings and label-stops. As these are very heavy a periodical inspection should be made that they are affixed to the building properly e.g., metal fasteners let into the surrounding brick works are not corroded or missing.

67-69 h. The roof on the Main Street facade side, needs to be replaced, as the asphalt shingles have long since come to the end of its service life.





Note: 81 Main Street has no obvious signs of deterioration or conditions that warrant dialogue.

81-87 a. The flashing located at the upper roof parapet wall and above the fascia board and console brackets appear to be in good condition. A periodic inspection of the caulking and or mortar should be done regularly.

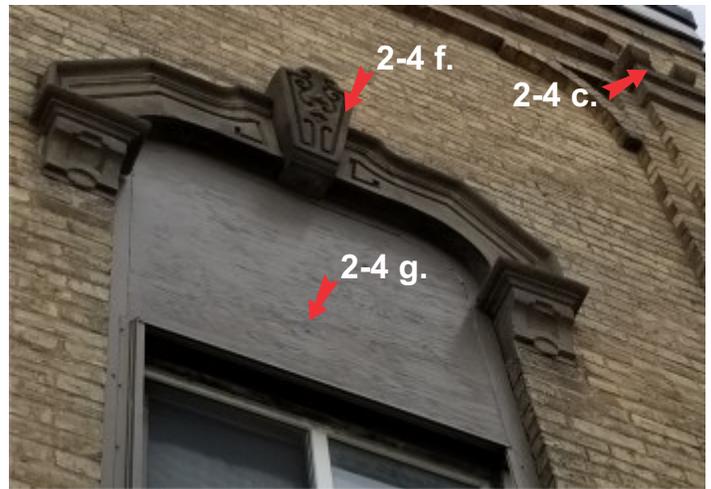
81-87 b. There is a stress crack located on the side wall of the building. This crack should be filled with an all lime based mortar and inspected regularly to see if the crack reopens or widens. Keep an eye on widening cracks or bulges and engage a professional structural engineer to provide remedy immediately.

81-87 c&d. There are several areas of erosion of masonry units, most likely from a poorly installed parapet flashing in the history of the building. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

81-87 e. A tar line from a former roof line is quite visible. Although not really damaging, it is unsightly. With gentle heat and wooden scrapers most if not all can be removed successfully.

81-87 f. All areas of painted timber (i.e. console brackets, window louvers and original window trim) should be scraped and repainted. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding (as noted) and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

81-87 g. This building has wooden elements in direct contact with masonry and concrete. Timber elements and masonry with the potential of sustained damp (e.g., sidewalks) will prematurely rot the timber, all timber should be terminated at least 1" above ground surface masonry.



2-4 a. The flashing located at the upper roof parapet wall and above the fascia board shows severe areas of deterioration and may have not been caulked properly. I have noted that the flashing at the junction of this building and the building to the south may not have been caulked or let into the masonry properly and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

2-4 b. All areas of painted timber (i.e. console brackets and original window trim) should be scraped and repainted. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding (as noted) and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

2-4 c. There are several areas of erosion of masonry units, most likely from a poorly installed parapet flashing in the history of the building. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

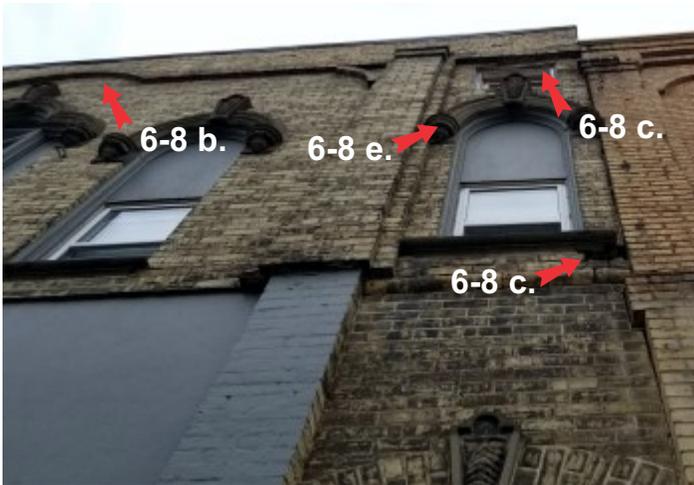
2-4 d. This building employs cast-iron columns to support the main beam which in-turn supports the upper levels. Some signs of corrosion have been noted. These columns should be inspected closer to see if they still have structural integrity at their bases. Rust should be wire-brushed and the whole of the column kept well painted.

2-4 e. The main structural masonry support pilasters and masonry have deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble

salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

2-4 f. This building has beautiful and very character defining cast or cut stone hood mouldings and label-stops with a central key stone. As these are very heavy and usually are installed in several sections a periodical inspection should be made that they are affixed to the building properly e.g., the mortar is well pointed into the surrounding brick works and is not allowing water to get between the mouldings and the underlying brick work which could become dislodged in a freeze and thaw cycle.

2-4 g. Many areas on this building are using plywood as cladding or to fill-in upper portions of windows. Interior or construction grade plywood is not a satisfactory material unless it is rated for exterior uses such as MDO (medium density overlaid plywood). All areas of painted timber (i.e. console brackets) should be scraped, repaired and repainted.



6-8 a. The flashing located at the upper roof parapet wall and above the fascia board shows areas of deterioration and may have not been caulked properly. I have noted that the flashing at the junction of this building and the building to the north may not have been caulked or let into the masonry properly and may be allowing water to find its way between the flashing and the masonry units, which will inevitably cause problem with damp and spalling of masonry units.

6-8 b. There are several areas of erosion of masonry units, most likely from a poorly installed parapet flashing in the history of the building. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

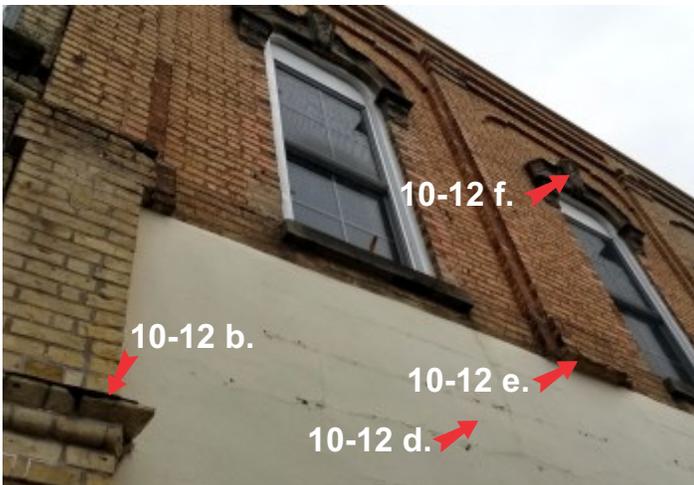
6-8 c. On the day of my inspection, a brick had very recently fell from the area noted on the previous page. keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Emergency repairs should be made prior to winter of this year as this could be dangerous for pedestrians.

6-8 d. Many areas on this building are using plywood as cladding or to fill-in upper portions of windows. Interior or construction grade plywood is not a satisfactory material unless it is rated for exterior uses such as MDO (medium density overlaid plywood). All areas of painted timber (i.e. console brackets) should be scraped, repaired and repainted.

6-8 e. This building has beautiful and very character defining cast or cut stone hood mouldings and label-stops with a central key stone. As these are very heavy and usually are installed in several sections a periodical

inspection should be made that they are affixed to the building properly e.g., the mortar is well pointed into the surrounding brick works and is not allowing water to get between the mouldings and the underlying brick work which could become dislodged in a freeze and thaw cycle.

6-8 f. The joint between this building and the adjacent building should be kept well pointed with lime mortar to not allow water to penetrate, which could create a spall condition.



10-12 a. The flashing located at the upper roof parapet wall and above the fascia board shows areas of deterioration and may have not been pointed or caulked properly. I have noted that there is no flashing present at the junction of the fascia board and second level masonry, this condition could be allowing water to find its way between the flashing and the concrete pargetting, which will inevitably cause a problem with damp and spalling of underlying masonry units.

10-12 b. On the day of my inspection, I noted the poor condition of the brick work and mortar with brick units missing and or heavily eroded. Keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Emergency repairs should be made prior to winter of this year as this could be dangerous for pedestrians.

10-12 c. Some of the brick work on this building has been media blasted. Media blasting or water blasting is not acceptable on any heritage materials. Such unsympathetic works will destroy the brick work (as noted) as the masonry units are not hard enough to withstand such abrasive cleaning techniques. The entire wall will need to be pargeted with an all lime suction bond to allow the transmission of moisture to the exterior, or the brick needs to be replaced wholesale.

10-12 d. The fascia board area has been pargeted in what looks like concrete. Concrete pargetting will hold copious amounts of moisture between the soft brick and the concrete parget itself causing massive spalling issues destroying the underlining brick during freeze and thaw cycles. Cementitious materials should

be removed wholesale and the entire wall pargeted with an all lime suction bond to allow the transmission of moisture to the exterior.

10-12 e. I noted a strange condition whereas the pilaster faces have been removed during a renovation. Have the upper levels of these pilasters been supported adequately?

10-12 f. This building has beautiful and very character defining cast or cut stone hood mouldings and label-stops with a central key stone. As these are very heavy and usually are installed in several sections a periodical inspection should be made that they are affixed to the building properly e.g., the mortar is well pointed into the surrounding brick works and is not allowing water to get between the mouldings and the underlying brick work which could become dislodged in a freeze and thaw cycle.



14 a. The flashing located at the upper roof parapet wall and above the fascia board appear to be in good condition, however, regular inspection of these areas for deterioration is prudent. Make certain these areas have been pointed or caulked properly as this condition could be allowing water to find its way between the flashing and the underlying masonry units, which will inevitably cause problem with damp and spalling.

14 b. This building has a very distinct and beautiful masonry cladding (i.e. appears to be sandstone). If this cladding is sandstone it is important to keep the mortar joints well pointed with a soft all lime mortar. Sandstone is very susceptible to damage by unsympathetic Portland cement pointing.

14 c. All areas of painted timber (i.e. fascia board and original window trim) should be scraped and repainted as required with regular maintenance. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.



16-22 a. This building has a beautiful cornice with outstanding console brackets and corbels. Several of the boxed console brackets are in miserable condition especially the console to the north. The flashing at the rear of this console is not adequate allowing copious amounts of water to enter from the rear creating a cuboidal rot situation. All of the consoles need to be inspected for integrity and several will need to be replaced wholesale immediately before they become dislodged and pose a threat to pedestrians and property below. The lower flashing located at the fascia board on the first level should be inspected for integrity and repaired or replaced as necessary. All areas of painted timber (i.e. fascia board and original window trim) should be scraped and repainted as required with regular maintenance. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

16-22 b. The main structural masonry support pilasters have deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding.

Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

16-22 c. This building has wooden elements in direct contact with masonry and concrete. Timber elements and masonry with the potential of sustained damp (e.g., sidewalks) will prematurely rot the timber, all timber should be terminated at least 1" above ground surface masonry.

16-22 d. This building has beautiful and very character defining cast or cut stone hood mouldings and label-stops with a central key stone. As these are very heavy and usually are installed in several sections a periodical inspection should be made that they are affixed to the building properly e.g., the mortar is well pointed into the surrounding brick works and is not allowing water to get between the mouldings and the underlying brick work which could become dislodged in a freeze and thaw cycle.



30 a. The flashing located at the upper roof parapet wall and above the fascia board appear to be in a condition of poor (at parapet) and good (at fascia board). Regular inspection of these areas for deterioration is prudent. Make certain these areas have been pointed or caulked properly as this condition could be allowing water to find its way between the flashing and the underlying masonry units, which will inevitably cause problem with damp and spalling.

30 b. All areas of painted timber (i.e. fascia board, console brackets and original window trim) should be scraped and repainted as required with regular maintenance. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

30 c. Many areas on this building are using plywood as cladding and fascia board, with many areas of rot. Interior or construction grade plywood is not a satisfactory material unless it is rated for exterior uses such as MDO (medium density overlaid plywood). All areas of painted timber (i.e. console brackets) should be scraped, repaired and repainted.

30 d. The main structural masonry support pilasters have deterioration at its base where it comes in contact with the sidewalk (these areas may have been pargetted with concrete). This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important

to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

30 e. There are several areas of erosion of masonry units, most likely from a poorly installed parapet flashing in the history of the building. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.

30 f. The joint between this building and the adjacent building should be kept well pointed with lime mortar to not allow water to penetrate, which could create a spall condition. Refrain from the use of spray foam, it is unattractive and can hold copious amounts of water, creating a spall condition of the masonry units.



32-34 a. The flashing located at the upper roof parapet wall and above the fascia board appear to be in good condition. Regular inspection of these areas for deterioration is prudent. Make certain these areas have been pointed or caulked properly as this condition could be allowing water to find its way between the flashing and the underlying masonry units, which will inevitably cause problem with damp and spalling.

32-34 b. Ancillary side walls were traditionally pargeted with a suction bond of lime mortar. Concrete pargetting will hold copious amounts of moisture between the soft brick and the concrete parget itself causing massive spalling issues destroying the underlining brick during freeze and thaw cycles. Cementitious materials should be removed wholesale and the entire wall pargeted with an all lime suction bond to allow the transmission of moisture to the exterior. This building has a severe problem which will

need to be addressed immediately. The upper level of existing concrete pargetting has the potential of collapsing causing damage to the adjacent property or pedestrians.

32-34 c. I noted during my inspection that the upper level has a distinct lean. This may have appeared soon after original construction, however, could be a symptom of a more serious structural condition.



Note: This building is very well maintained with very few issues.

44 a. I noted a few areas of cuboidal wet rot that needs attention. After repair, make certain that the flashing is adequately protecting timber elements. All areas of painted timber should be scraped and repainted as required with regular maintenance. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

44. b. There is some erosion above the front entry of the limestone pediment, due in part to warm air escaping through the entry doors in the wintertime causing a freeze thaw cycle in the soft stone. Repointing of the stonework should be done utilizing only lime-based mortar devoid of any cement. There are many conservation products with a long history of success available

to completely restore these affected areas back to their original condition. Some spalling of the stone is also evident along the front steps from the use of salt in the winter months.

44.c During regular maintenance cycles the brick masonry units, rusticated stone works and decorative cut stone works should be inspected for any deterioration of mortar joints and re-pointed with an all lime based mortar to match.



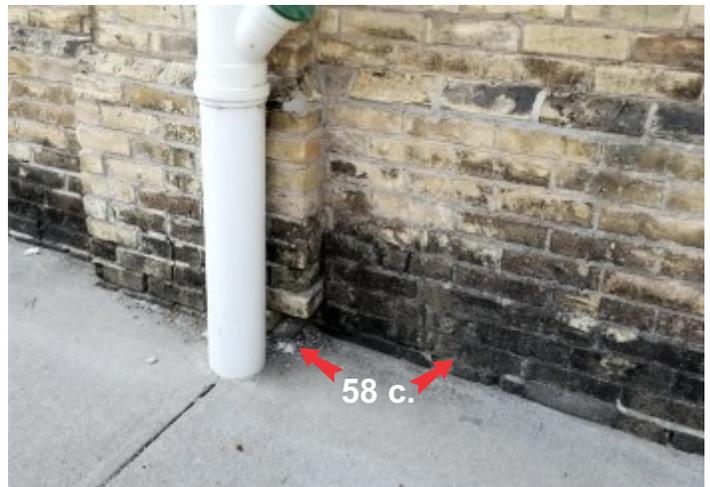
52 a. Much of the flashing on the building is well executed, however, in areas at the termination of the gutter against a perpendicular wall surface there needs to be a proper flashing let into the brick works or an adequate splash guard installed. I noted some deterioration and water staining of the adjacent walls. Verify that the gutters are all flowing properly and are not leaking against the masonry units. Should down-spots be exiting overland rather than into a footing weep tile or storm sewer?

52 b. The masonry is in miserable condition with considerable spalling. The masonry in question is new brick units installed during a "renovation" the bricks do not match the existing historic fabric and may be spalling because of Portland cement mortar employed in the "new" brick areas. A further pathology inspection of this building is highly recommended to inspect for roof water and damp issues which may also be affecting these areas as well. The affected brick areas need to be replaced wholesale and a suitable matching or custom brick needs to be employed. Only an all lime-based mortar should be used. During any subsequent pathology inspection existing mortar and brick samples should be taken to create a conservation plan for replacement and remediation.

52 c. There are sizable stress cracks that have appeared in some areas, these may have appeared because of the use of Portland cement or it could indicate some other underlying structural condition. Portland cement damage seems more plausible.

52 d. The front steps indicate the use of salts used during winter months. These areas need to be kept well pointed with an all lime mortar and kept well maintained to arrest any further damage to the rusticated stone works.

52 e. I would discourage the use of paint on the rusticated stone works, it is unsympathetic to the heritage fabric of the building.



58 a. Regularly inspect eavestroughs for leaks and repair or replace as necessary.

58 b. This building has a beautiful cornice with outstanding console brackets and corbels. Several areas of the cornice is in poor condition with aluminium installed (which should be removed and the cornice restored). The flashing at the rear of this console is not adequate allowing water to enter from the rear creating a cuboidal rot situation. The lower flashing located at the fascia board on the first level should be inspected for integrity and repaired or replaced as necessary. All areas of painted timber (i.e. fascia board, corbels, cornice and original window trim) should be scraped and repainted as required with regular maintenance. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

58 c. Sections of the masonry have deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

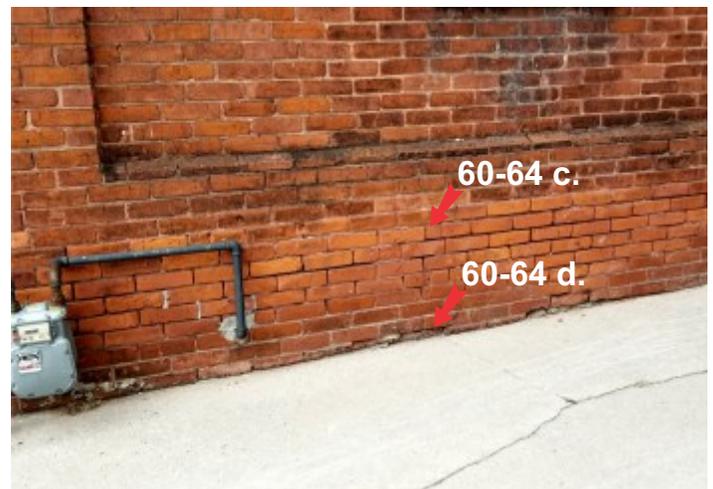
58 d. The main above-grade masonry exterior cladding is in fair condition with several areas of deterioration due to miss-managed roof water, however, (see 58 g.) cement has been used to fill voids in the original all lime-based mortar which is very damaging. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Any spalled (broken-off) brick or washed out mortar should first be investigated to the reason why they have spalled or washed out i.e. broken or cracked

caulking around windows, Portland cement, landscape material too close to masonry, bad eavestroughs and downspouts or flashing, generally spalled masonry, and washed out mortar are a symptom of a moisture problem and should be repaired (water issues) as a priority.

58 e. The exterior brick work has a few areas with pronounced pyramidal cracks. Many of these types of cracks may have appeared in the first decade after original construction due in part to excessive shrinkage of wooden window frames and lintels. However, it can also indicate a problem with rot and the masonry has shifted. Keep pyramidal cracks well pointed with an all lime based mortar, consult a structural engineer if the crack widens or becomes unstable.

58 f. A cut stone (or pre-cast) sill is in poor condition. A detailed inspection must be made to investigate why this sill has cracked and deteriorated, most likely water damage. Repointing of the stonework should be done utilizing only lime-based mortar devoid of any cement. There are many conservation products with a long history of success available to completely restore this sill back to its original condition.

58 g. Portland cement has been used to fill voids in the original all lime-based mortar which is very damaging. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement.



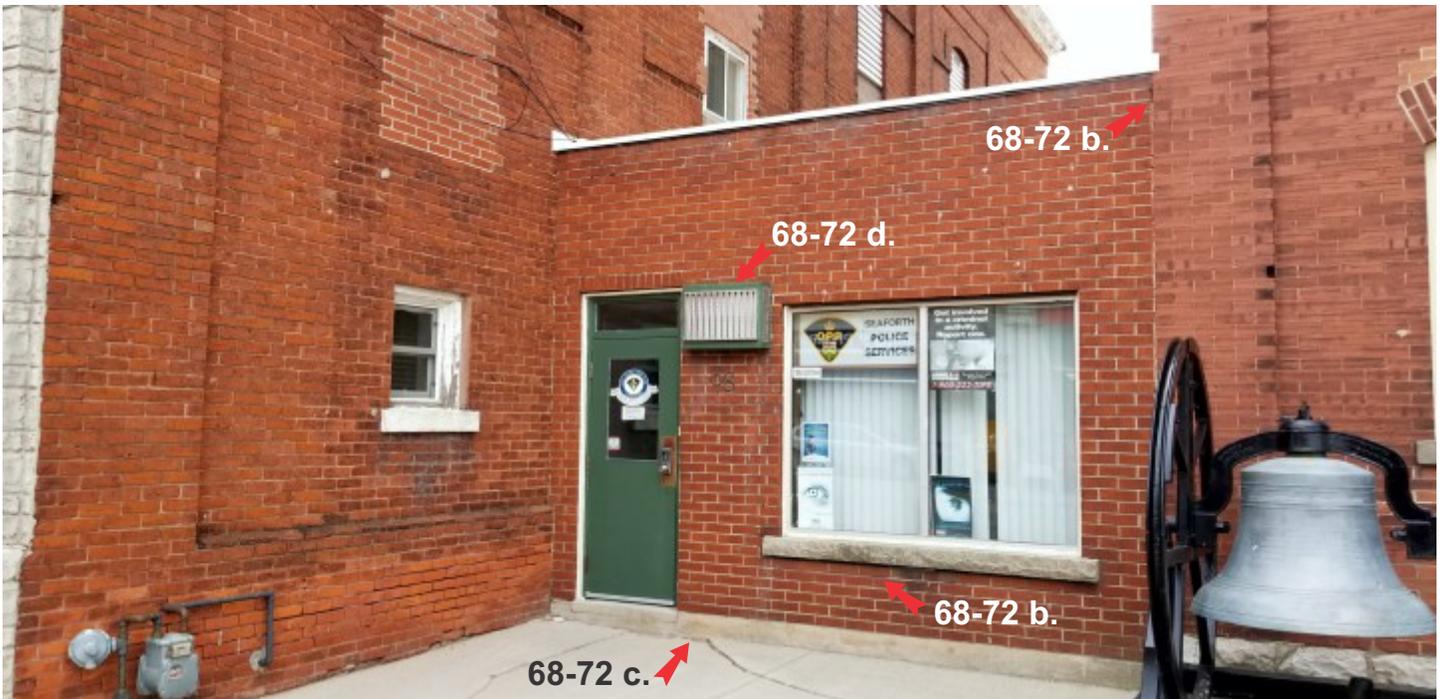
60-64 a. The upper parapet flashing appears to be in good condition. The lower fascia board flashing is deteriorating and should be inspected that it is adequately caulked or let into the masonry with an all lime-based mortar.

60-64 b. The existing cornice is very handsome and should be retained at all costs. After repair, make certain that the flashing is adequately protecting timber elements. All areas of painted timber should be scraped and repainted as required with regular maintenance. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

60-64 c. The main above-grade masonry exterior cladding is in poor condition with several areas of deterioration due to miss-managed roof water, however, Portland cement has been used to fill voids in the original all lime-based mortar which is very damaging. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Any spalled (broken-off) brick or washed out mortar should first be investigated to the reason why they have spalled or washed out i.e. broken

or cracked caulking around windows, Portland cement, landscape material too close to masonry, bad eavestroughs and downspouts or flashing, generally spalled masonry, and washed out mortar are a symptom of a moisture problem and should be repaired (water issues) as a priority.

60-64 d. Sections of the masonry have deterioration at its base where it comes in contact with the sidewalk. This problem is due to freeze and thaw cycles and soluble salts (winter road salt) destroying the masonry units. Water and soluble salts which destroy lime mortar must be kept in check therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.



68-72 a. 72 Main Street is well maintained and has very few issues of note. However, some thought should be given to the use of salt as a de-icer during the winter months as it is very damaging to clay brick and lime mortar as the area of salt efflorescence indicates at the front entrance.

68-72 b. The joint between this building and the adjacent building should be kept well pointed with lime mortar to not allow water to penetrate, which could create a spall condition. There are a few areas where the mortar between brick units have deteriorated. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. Any spalled (broken-off) brick or washed out mortar should first be investigated to the reason why they have spalled or washed out i.e. broken or cracked caulking around windows, Portland cement, landscape material too close to masonry, bad eavestroughs and downspouts or flashing, generally spalled masonry, and washed out mortar are a symptom of a moisture problem and should be repaired (water issues) as a priority.

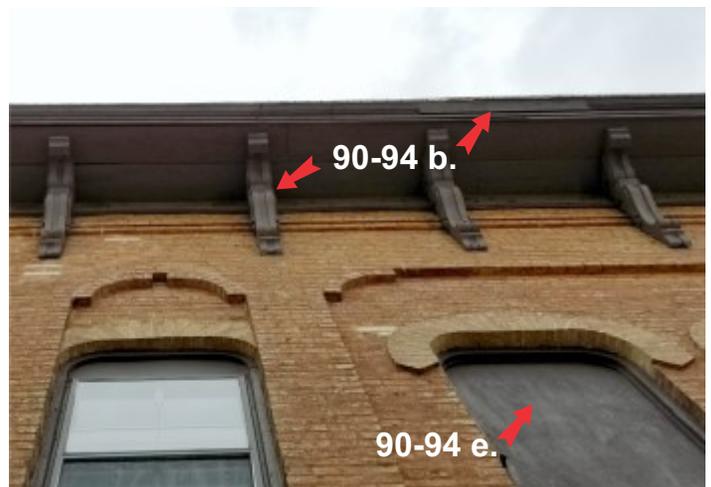
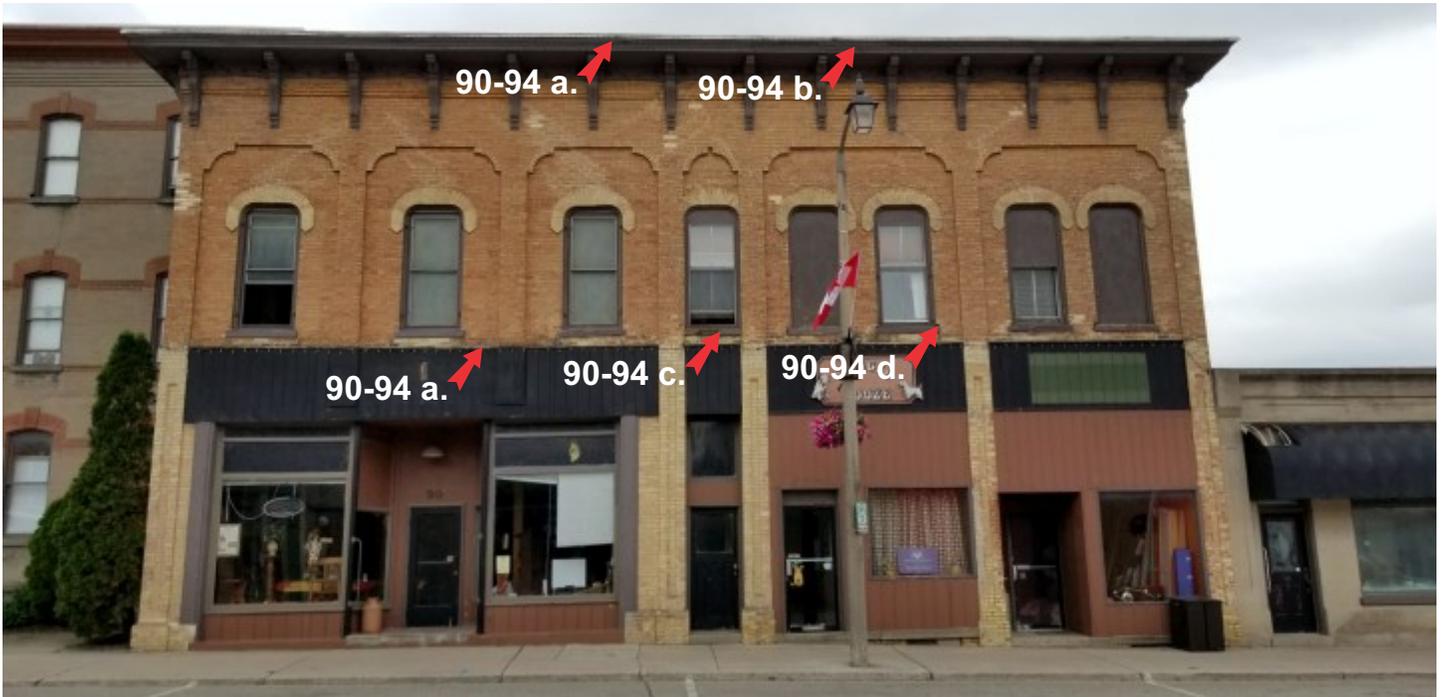
68-72 c. There are very pronounced cracks and heaving in the concrete sidewalk which could become a tripping hazard.

68-72 d. Through wall air conditioners should be designed to allow any moisture (created by the AC unit) to flow outside of the wall surface, preferably via a hose or pipe to the sidewalk.



84 a. The exterior brick work has a few areas with pronounced pyramidal cracks. Many of these types of cracks may have appeared in the first decade after original construction due in part to excessive shrinkage of wooden window frames and lintels. However, it can also indicate a problem with rot and the masonry has shifted. Keep pyramidal cracks well pointed with an all lime-based mortar, consult a structural engineer if the crack widens or becomes unstable.

84 b. A detailed inspection of the balcony for rot should be made and repaired immediately. I detected a few areas that showed signs of cuboidal wet rot. Inspection of the water drainage of the deck should be made as well as any flashing along the edge. Repair and replace as necessary.



90-94 a. The upper parapet flashing appears to be in good condition. The lower fascia board flashing is in poor condition and should be inspected that it is adequately caulked or let into the masonry with an all lime-based mortar.

90-94 b. This building has a beautiful cornice with outstanding console brackets. Several areas of the cornice is in poor condition with aluminium installed (which should be removed and the cornice restored). The flashing at the rear of this console is not adequate allowing water to enter from the rear creating a cuboidal rot situation. The lower flashing located at the fascia board on the first level should be inspected for integrity and repaired or replaced as necessary. All areas of painted timber (i.e. fascia board, corbels, cornice and original window trim) should be scraped and repainted as required with regular maintenance. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

90-94 c. The building has timber sub-sills under the majority of the existing windows. There is severe deterioration and loss of the paint surface. These sub-sills should be scraped, and any areas of rot repaired with a two-part epoxy system and repainted. Sills and sub-sills should never be caulked on the bottom as this can create issues with the passage of moisture which can rot out the sill and the sub-sill.

90-94 d. Sections of the masonry have deterioration at its base where it comes in contact with the sidewalk as well as the side of the building and in many areas on the front facade. Water and soluble salts which destroy lime mortar must be kept in check

therefore keeping these joints properly pointed is very important to the health of the exterior brick cladding. Repointing of the brick works should be done utilizing only lime-based mortar devoid of any cement. And, a regular yearly maintenance routine will need to be employed to keep the mortar in check and repair as necessary.

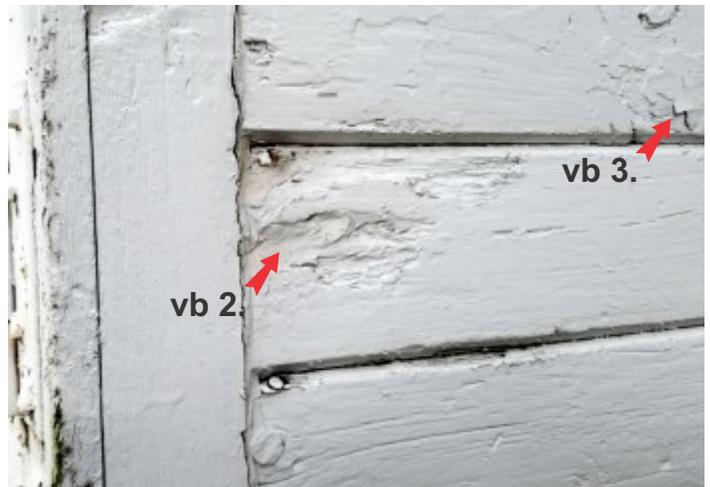
90-94 e. Many areas on this building are using plywood as cladding notably windows, with many areas of rot. Interior or construction grade plywood is not a satisfactory material unless it is rated for exterior uses such as MDO (medium density overlaid plywood). All areas of painted timber (i.e. console brackets) should be scraped, repaired and repainted.

90-94 f. This building has wooden elements in direct contact with masonry and concrete. Timber elements and masonry with the potential of sustained damp (e.g., sidewalks) will prematurely rot the timber. All timber should be terminated at least 1" above ground surface masonry.



96 a. This building is very interesting as it is built in pre-cast concrete. The upper concrete parapet wall should be inspected periodically for cracks and fishers that may allow water to enter the wall which could cause considerable damage in a freeze and thaw cycle. Keep any flashing in good order and well caulked or let into the masonry.

96 b. Soluble salts can be very damaging to any masonry including pre-cast concrete. Remove any areas of salt efflorescence and keep the lower sections where it comes in contact with the sidewalk well pargetted with similar materials.



vb 1. The bottom of the bi-fold doors should be trimmed back 2" to remove rot and to keep the wood from contacting the wood deck which will prematurely rot the bottom of the doors. Provide a proper door sweep to the bottoms of the doors to stop accumulation of debris and snow from entering the interior of the building.

vb 2. Caulking has been used to repair rotted wood. Caulking cannot be used for this type of repair ever! I also noted several horizontal joints caulked along the lower watertable board which will prevent the passage of water and create a rot situation! If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.

vb 3. The recent paint of this building has been

executed poorly, leaving unstable existing paint surfaces in-situ causing peeling and failure in the paint film. All areas of painted timber (i.e. siding, watertable boards etc.) should be scraped to native wood utilizing an infrared paint stripper and repainted as required with regular maintenance. If there are any areas of cuboidal wet rot, those areas that are simple flat sections of timber should be replaced wholesale with like material. Any areas with remarkable architectural moulding and detail should have any areas of cuboidal wet rot repaired with a two-part epoxy system.



This building is of great historic significance and is a very rare building type. This building has significant issues with rot and water damage. This building requires a complete and separate Pathology report to build a conservation plan for future works.

At its most basic, a Pathology and Conservation Report describes:

- what type of work is needed;
- Identify risks to the heritage, for example - fire, flooding, vandalism or lack of access to areas of a building;
- why it is critical to the project and community;
- which type of professional skills will be needed; and
- the estimated cost and program of conservation required.
- does not damage heritage unnecessarily;
- anticipates impact on different kinds of materials and includes action to reduce that impact;
- makes use of appropriate materials;
- uses an appropriate approach to restoration, reconstruction and the reinstatement of lost features.

END THIS REPORT