CONSULTATION • INVESTIGATION • DESIGN • CONSTRUCTION REVIEW

EDIFICEXPERTS

Building Science and Building Envelope Professionals

Affiliate of

INSPEC-SOL
ENGINEERING SOLUTIONS

REPORT: E020102-A1

The Cadillac Fairview Corporation
Condition Assessment of the Building Façades
Multi-Purpose Buildings
1162 to 1190 St-Antoine West, Montreal, Quebec

September 9, 2013

CONSULTATION • INVESTIGATION • DESIGN • CONSTRUCTION REVIEW

EDIFICEXPERTS

Building Science and Building Envelope Professionals

Montreal, September 9, 2013

Mr. Terry Fraser-Reid
Director, Development
The Cadillac Fairview Corporation A/S Blue Property Holdings, LP
7999, Les Galeries d'Anjou Boulevard, Suite 2220
Ville d'Anjou (Quebec) H1M 1W9

Subject: **Condition Assessment of the Building Façades**
Ref. No. E020102-A1
Multi-Purpose Buildings
1162 to 1190 St-Antoine Street, Montreal, Quebec

Dear Mr. Fraser-Reid;

Edifice Experts is proud to provide you with the following Condition Assessment of the Building Façades (Reference No. E020102-A1) of the property located at 1162 to 1190 St Antoine Street West in Montreal, Quebec.

We also thank you for having retained its technical and professional services and look forward to having the privilege of serving you again in the future.

Should you have any regarding the results the contents of this report please do not hesitate to contact our office for any further information.

Best regards,

ÉDIFICE EXPERTS INC.

David Khudaverdian, Eng.
President

ÉDIFICE EXPERTS INC. 4600, Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
T (514) 788-2910 F (514) 333-4674
WWW.EDIFICEEXPERTS.COM

CONSULTATION • INVESTIGATION • DESIGN • CONSTRUCTION REVIEW

EDIFICEXPERTS

Building Science and Building Envelope Professionals

THE CADILLAC FAIRVIEW CORPORATION
A/S BLUE PROPERTY HOLDINGS, LP

Condition Assessment of the Building Façades
Multi-Purpose Buildings
1162 to 1190 St Antoine Street,
Montreal, Quebec

Date : **September 9, 2013**	Ref. No. : **E020102-A1**

CONSULTATION • INVESTIGATION • DESIGN • CONSTRUCTION REVIEW
EDIFICEXPERTS
Building Science and Building Envelope Professionals

THE CADILLAC FAIRVIEW CORPORATION
A/S BLUE PROPERTY HOLDINGS, LP
7999, Les Galeries d'Anjou Boulevard, Suite 2220
Ville d'Anjou (Quebec) H1M 1W9

Condition Assessment of the Building Façades
1162 to 1190 St-Antoine Street,
Montreal, Quebec

Ref. No. : E020102-A1
September 9, 2013

Prepared by :

Joanne Massoud, B. Sc., M. Eng.
Project Coordinator

Approved by :

Dan-Jose Abraham, Eng.
Vice-President

Distribution: **THE CADILLAC FAIRVIEW CORPORATION – Mr. Terry Fraser-Reid**
(Copy by E-mail: terry.fraserreid@cadillacfairview.com)

TABLE OF CONTENTS

1.0 Introduction

In accordance with the mandate provided to Edifice Experts Inc. (Edifice Experts) by The Cadillac Fairview Corporation (Client), the following presents the results of the condition assessment of the vertical building envelope of the two adjoining multi-purpose buildings located at 1162 to 1190 St-Antoine Street in Montreal, Quebec.

The principle objectives for this evaluation of the building façades were to provide the Client with a detailed written report, including photographs and drawings, which would present the following:

1. Identify all visible symptoms or suspect areas of deterioration, cracking or partial detachment of sections of the exposed bricks and stone and concrete elements along the building façades which may be considered an immediate or eventual risk to the safety of pedestrians or building occupants;
2. Verify the condition of weather seals of the building fenestration;
3. Provide the Client with a proposed program of additional studies and/or remedial work in order to address any unsafe conditions identified along the building façades.

The field review of the building façades was executed by experienced technical personnel using a combination of an articulated motorized lift and a crane. Specific areas of the exterior wall not readily accessible via crane or motorized lift were assessed from the street and roof levels using binoculars.

1.1 Presentation of Appendices

Appendix A of this report includes photographs of the buildings elevations which identify the locations of the various symptoms of façade deterioration/deficiencies noted during our condition assessment.

Appendix B contains supplementary photographs taken of the buildings during our study .

2.0 Methodology

As a means to meet the objectives of the study described above, our condition assessment of the building façades of the multi-purpose buildings consisted of the following three stages:

Phase 1 - Preliminary Stage:
In preparation for our field review, photographs of the buildings façades were prepared for the recording of field data.

Phase 2 - Visual Inspection of the Buildings Façades:
The non-destructive visual review of the building façades was conducted by professionals experienced in the review of building envelope systems and masonry wall construction. The inventory of unsafe conditions, deficiencies and symptoms of exterior wall cladding deterioration and suspect areas that were documented during our condition assessment was transferred onto photographs of the building façades prepared in advance of the study. Wherever possible, loose material (masonry, concrete stone and mortar) noted along the façades during our survey which was deemed to pose as a potential/immediate risk to pedestrian safety and security, were removed manually as a safety precaution by our field team.

Phase 3 – Analysis and Reporting:
All the observations, results, conclusion and recommendations resulting from the completion of the visual survey of the building façades of the multi-purpose building are presented herein, and are accompanied by relevant photographs and drawings. The report includes a general description of corrective work and associated budget costs that may be required for all proposed corrective work and/or proposed recommendations for further study, if applicable, in order to address all deficiencies presented within this report. The information provided in this report provides basic information which may be useful for the eventual preparation of detailed plans and design specifications for all corrective repairs, if applicable.

2.1 Project Team

The on-site condition assessment of the buildings façades was conducted by Mr. Dan-José Abraham, Eng., Mr. Brent Dinsmore, P.Eng. (ON) and Ms. Joanne Massoud, B. Sc., M. Eng., of Edifice Experts Inc. on June 5th, 6th and 25th, 2013.

Access within the building was provided by on-site building security and maintenance personnel. The review of the south and west façades of the 1170 to 1190 St Antoine Street West building was executed principally from a 38T crane supplied by *Action Calfeutrage* as subcontracted by Edifice Experts, whereas the review of the rest of the façades was executed from a 60-ft articulated lift supplied by *Location d'Outils Simplex*. Wherever possible, specific areas of the exterior wall not readily accessible via crane or lift were assessed from the street and roof levels using binoculars..

3.0 Property Description and History

The complex is comprised of two (2) adjacent buildings reported to have been built in multiple phases between the years of 1910 and 1956, according to the information obtain at the city of Montreal. (For reporting purposes, the building located at 1162 St Antoine Street West will be referred to as 1162, and the buildings located at 1170 to 1190 St Antoine Street West will be treated as one entity and referred to as 1180). This complex is currently under the ownership and management of *The Cadillac Fairview Corporation Ltd.*

The 5-storey office building located at 1162 St Antoine Street West was built in 1956 and has reported total floor area of 30,000 sq. ft.

This building is reportedly vacant and has been abandoned since the early 2000s. In December 2007, a fire ravaged the rear portion of the building, and has since been boarded up and condemned. The main façade and approximately 25% of east façade of the 1160 building are currently covered with full height advertisements tarpaulins and were inaccessible for inspection at the time of our survey. The west façade of this building faces a narrow alleyway located between the two buildings and was similarly inaccessible and could not be assessed at the time of our survey. It is important to note that approximately 55 % of the 1162 building and 22% of the 1180 building façades were <u>not</u> reviewed due to the aforementioned site restrictions.

The 1180 building was built in 1920 and originally served as rentable office space. The property consists of adjoining 3 and 6-storey buildings, with a reported total floor area of approximately 78,000 sq-ft. This building is occupied by various commercial and light industrial rental units. The east façade of this building faces a narrow alleyway located between the two buildings and was similarly inaccessible and could not be assessed at the time of our survey.

Figure No. 1 : Geneal location of the multi-purpose buildings, Montreal, Quebec

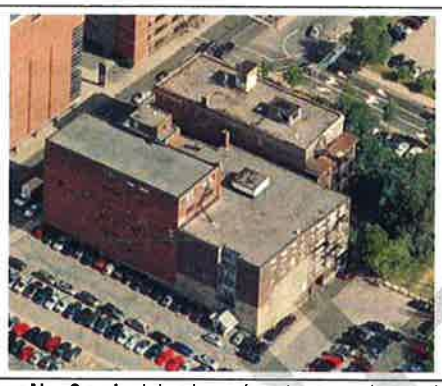
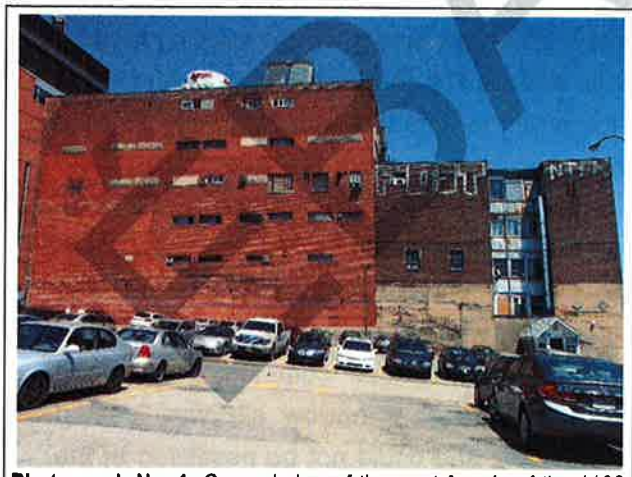


Figure No. 2 : Aerial view (western and southern elevations) of the multi-purpose buildings, Montreal, Quebec

Based on our field observations, the exterior cladding of the 1162 building is primarily constructed of red and brown brick masonry, complemented with ornamental/architectural limestone elements including cut-stone cornices, belt courses, window perimeters and dripstones.

The exterior cladding of the 1180 building is primarily constructed of red and brown brick masonry. Portions of its south and west brick façades are covered with a layer of cementitious parging and a portion of its west façade is clad with metal sheets/siding. The exterior cladding of the north façade is primarily constructed of a combination of red brick masonry and cut stone cladding.



Photograph No. 1: General view of the west façade of the 1180 building

Photograph No. 2: General view of the south façade of the 1180 building

Photograph No. 3: General view of the north façade of the 1162 (far left) and 1180 building

Photograph No. 4: General view of the east façade of the 1162 building

Photograph No. 5: General view of the west façade of the 1162 building

Photograph No. 6: General view of the south façade of the 1162 building

4.0 Expertise – Evaluation of the Building Façades

A non-destructive visual inspection of the accessible surfaces of the building façades from the ground floor to the roof level was performed as a means to identify any obvious symptoms of deterioration and unsafe conditions relating to the exterior wall cladding, as well as areas that may require preventative or corrective repairs.

All the noted areas of deterioration/damage noted along the façades that require repairs have been described or classified by a degree of urgency (*Critical, Serious, Moderate, or Minor)*, as defined in Table No.1 below.

Table No. 1 : Terminology Defining Degree of Urgency for Observed Deficiencies	
CRITICAL	Deficiencies which pose **imminent risk to public safety** and/or be considered a high risk to the overall integrity of a significant portion of the building envelope. ***Immediate Action Required***
SERIOUS	Widespread or localized deficiencies which may in time compromise the integrity of localized areas of the building envelope, be a source of water ingress, and/or could soon be a risk to public safety in the short term. ***Corrective Action Required in the Short Term (within 24 months)***
MODERATE	Less recurrent deficiencies and/or deficiencies associated with less severe or less immediate consequences. ***Corrective Action Proposed within the Medium Term (within 4 years)***
MINOR	Deficiencies which are present sporadically and/or considered as having a minimal effect/impact on the integrity of the building envelope over the next 10 years. ***Corrective Action Proposed within the Long Term (within 10 years)***

It is important to note that the level of importance/urgency accorded to each of the type of deficiencies identified is not necessarily linked to the individual quantity or to the scope to which it was noted along the façades. The level of urgency of each of the deficiencies have in fact been established based upon the potential risk to public safety ("*critical*"), followed by the risk to the integrity and performance of the vertical building envelope ("*serious*", "*moderate*" or "*low*") over the short, medium, and long term.

A complete inventory of all observed deficiencies/deterioration of the exterior wall is presented in the section below as well as in **Appendices A and B** of this report. No exploratory openings were executed as part of this preliminary condition assessment.

The noted deficiencies, symptoms of deterioration and damage to the building façades identified during our survey are as follows:

A. Critical Conditions (UNSAFE CONDITIONS)

1. The masonry is exhibiting signs of severe deflection at the parapet level along the west façade of 1180 (Photograph Nos. 19 and 20);

2. The masonry brick units at the corner wall of the upper northern portion of the west façade of 1180 was noted to be out of axis or laterally displaced (Photograph No. 21);

3. Localized areas of the brick masonry wall are exhibiting signs of severe longitudinal cracking and / or displacement of the masonry wall at both building (Photograph Nos. 7, 8, 9, and 22);

4. Three (3) sections of stone cladding were exhibiting signs of severe deflection (buckling or bowing) on the north façade of the 1180 building (Photograph No. 24);

5. Severe cracking and displacement the stone cornice was observed at the southwest and southeast corners of 1162 (Photograph Nos. 10 and 11);

6. Signs of advanced concrete deterioration of retaining/former foundation wall at the rear of the 1162 building (Photograph No. 12).

Corrective action to address these areas is required <u>immediately</u> in order to address the potential risk to the safety of pedestrians and building occupants from the possible risk of weakened sections of stone or masonry detaching/debonding and falling from localized areas of the building façades. The immediate installation of overhead protection and/or protective fencing around the building is considered necessary as the current conditions are deemed to currently represent a risk to the public safety. Until which time corrective work or stabilization of these areas of the building facades and retaining wall is executed, the pedestrian protection and fencing should remain in place in order to ensure public safety. As for the concrete retaining wall, restrictive access in its vicinity should be enforced until a structural assessment can be conducted to establish corrective measures.

These "**critical zones**" are identified on the elevation drawings included in Appendix A.

B. Serious Deficiencies

The "**serious**" deficiencies observed along the building façades include those areas which require repairs to help preserve the integrity of the vertical envelope, but could be addressed within a program of corrective work within the next 24 months with minimal risk to public safety.

These conditions include:

1. Localized missing or loose masonry brick units (Photograph No. 25);
2. Widespread areas of spalling masonry brick units (Photograph No. 13);
3. Localized bowing/lateral deflection of sections of the brick wall (Photograph No. 27);
4. Localized bowing/lateral deflection of the stone cladding (Photograph No. 23)
5. Poorly bonded, spalled, fissured and/or eroded mortar joints (Photograph Nos. 28, 29, and 30);
6. Localized areas of advanced signs of erosion, flaking, delamination, cracking, and/or spalling sections of stone cladding elements (Photograph Nos. 14, 15, 17, and 32);
7. Localized delaminated, cracked and/or spalled concrete window sills, with exposed and corroded steel reinforcement (Photograph No. 33);
8. Localized honeycombing and delaminated, cracked and/or spalled concrete wall (Photograph No. 34);
9. Localized sections of cracked, delaminated and/or de-bonded (failed) cementitious parging (Photograph No. 35);
10. Generalized cohesive and/or adhesive failure and/or absence of caulking in exterior joints (Photograph No. 37);
11. Heavily corroded and sagging steel lintels above windows and doors (Photograph No. 18);
12. Missing prefabricated sills and/or metal flashing at window base (Photograph No. 38);
13. Heavily deteriorated, corroded, torn metal siding, and poor overlapping details and/or deficient caulking at seams (Photograph No. 40);
14. Damaged metal flashing (Photograph No. 43);
15. Heavily deteriorated/rotted wood window frame members, exhausts and other openings and protrusions (Photograph No. 44).

C. Moderate Deficiencies

1. Generalized hairline cracks in the bricks (Photograph No. 26);
2. Extensive vegetation growth within masonry elements (Photograph No. 31);
3. Localized broken and missing window panes at 1162 (abandoned building) (Photograph No. 16);
4. Out of axis concrete window sills (Photograph No. 39);
5. Localized absence of adequate sprinkler pipe anchors (Photograph No. 42);

D. Minor Deficiencies

1. Localized areas of efflorescence, water run-off, soot and rust staining along window concrete sills and brick masonry cladding (Photograph No. 36);
2. Localized areas of graffiti art (Photograph No. 45);
3. Hairline cracks in stone panels (Photograph No. 46).

Considered to be inconsequential to the long term performance of the exterior wall cladding, it should be noted that the widespread layering and slotting observed along the surface of many of the stone cladding elements is caused by the natural limestone stratification, and any localized discolouration, pollution and weathering related staining of the stone elements were omitted from the survey results.

4.1 Photographic Results of the Evaluation of the Building Façades

The photographs below present examples of typical deficiencies recorded during the visual review of the building façades, as described above. The location of each of the photographs below is included within the elevation drawings provided in Appendix A. Additional Photographs can also be found in Appendix B.

4.1.1 Building 1160

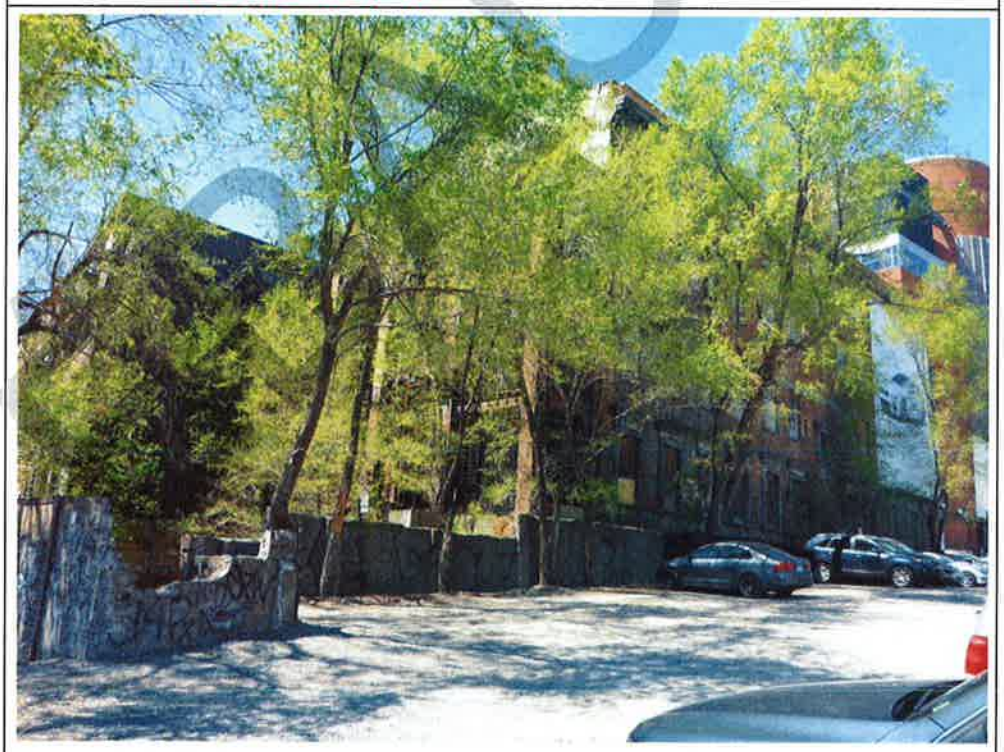
Photograph No. 7: Section of the brick and stone masonry cladding exhibiting signs of severe fracturing at the parapet (west façade) **(CRITICAL CONDITION)**

Photograph No. 8: Severe fracturing and displacement of the masonry column surrounding embedded steel beam (south façade) **(CRITICAL CONDITION)**

Photograph No. 9: Severe longitudinal cracking and spalling of the brick units (east façade) **(CRITICAL CONDITION)**

Photograph No. 10: Significant lateral displacement of the masonry elements at parapet level and displacement of the stone cornice (south façade) **(CRITICAL CONDITION)**

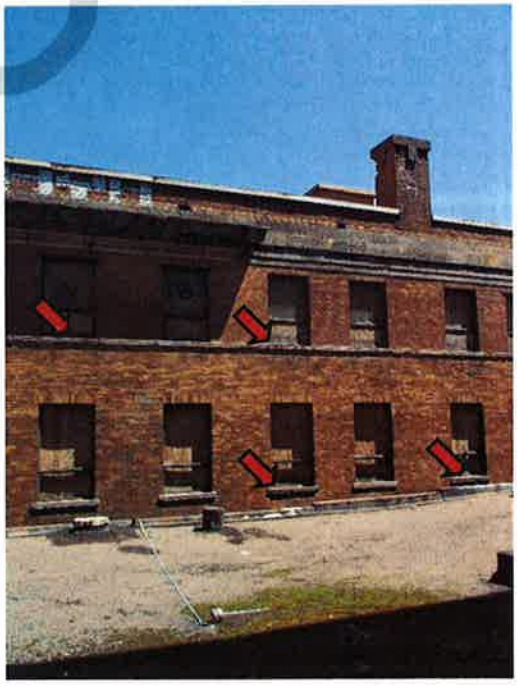
Photograph No. 11: Displacement and severe fracturing of the brick masonry, stone cornice and dentils (southeast corner) **(CRITICAL CONDITION)**



Photograph No. 12: Deteriorated concrete retaining wall along rear east façade

Photograph No. 13: Significant spalling and delaminated brick units (east façade)

Photograph No. 14: Vertical crack in dripstone over window opening (east façade)



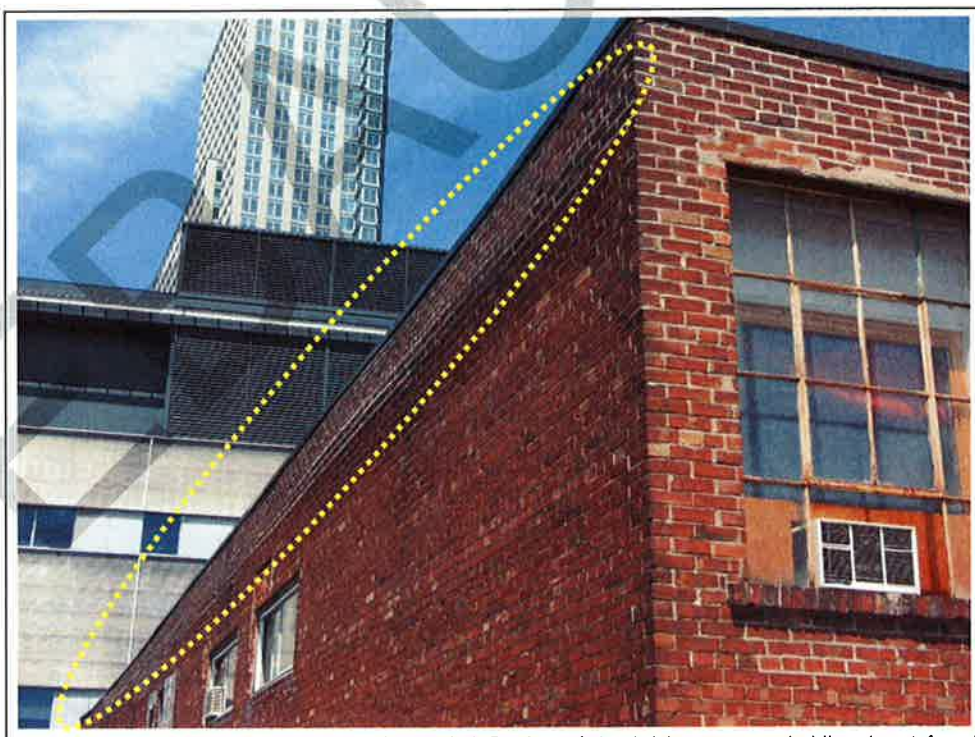
Photograph No. 15: Widespread erosion and spalling of stone window sills and string courses (west façade)

Photograph No. 16: Numerous missing window panes (west façade)

Photograph No. 17: Mortar erosion and significant flaking and erosion of ornamental stone dentil at cornice level (southeast corner)

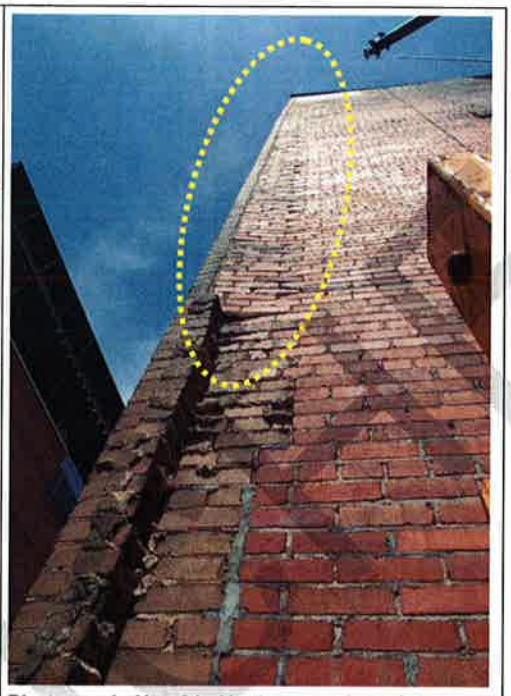
Photograph No. 18: Typical heavily corroded and sagging steel lintel (west façade)

4.1.2 Building 1180



Photograph No. 19: Severe bowing / lateral deflection of the brick masonry cladding (west façade) **(CRITICAL CONDITION)**

Photograph No. 20: Severe bowing/lateral deflection of the brick masonry cladding (west façade) **(CRITICAL CONDITION)**



Photograph No. 21: Northern portion of the west façade was noted to be out of axis **(CRITICAL CONDITION)**

Photograph No. 22: Localized longitudinal cracking of masonry column cladding adjacent to window jambs (south façade) **(CRITICAL CONDITION)**

Photograph No. 23: Fracturing and lateral displacement of the stone cladding at the street level (north façade)

Photograph No. 24: Outward displacement of the stone cladding element at the parapet level (north façade) **(CRITICAL CONDITION)**

Photograph No. 25: Absence of lateral brick units (west façade)

Photograph No. 26: Typical hairline cracking of the brick masonry units (west façade)

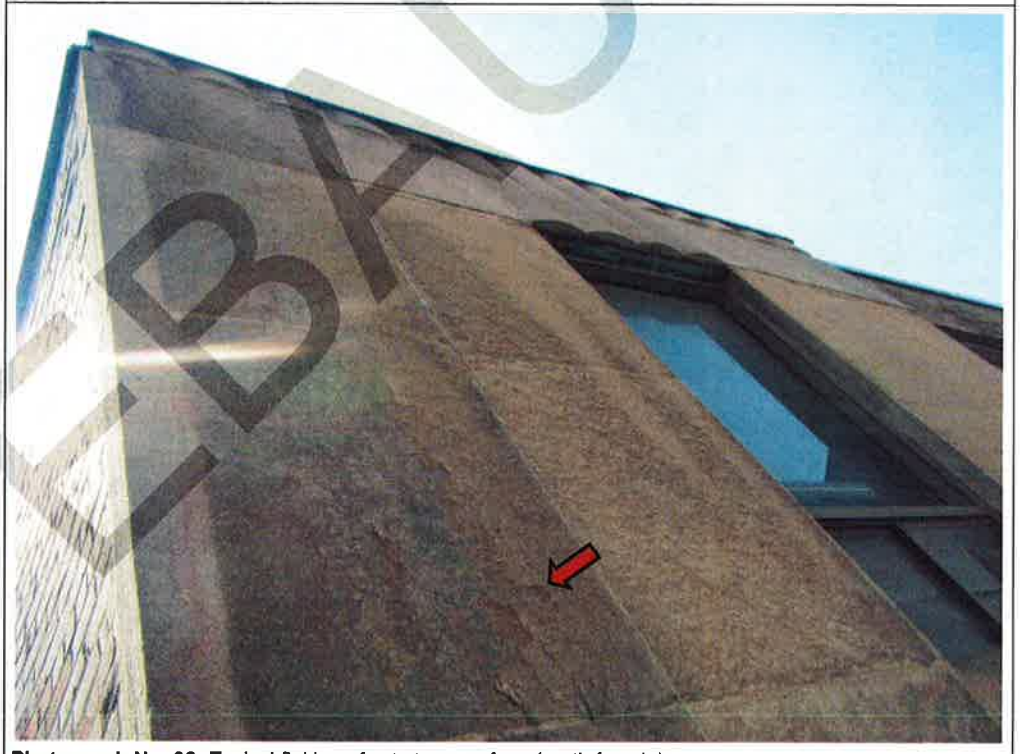
Photograph No. 27: Bowing/deflection of a portion of the brick masonry cladding (west façade)

Photograph No. 28: Fissured mortar joints and cracked cementitious parging (south façade)

Photograph No. 29: Vertical crack along mortar filled joint at the masonry wall/window junction (south façade)

Photograph No. 30: Poorly bonded and spalled mortar joints (east façade – roof level)

Photograph No. 31: Extreme vegetation growth between brick units (south façade)



Photograph No. 32: Typical flaking of cut stone surface (north façade)

Photograph No. 33: Fractured concrete window sill with exposed and corroded steel reinforcement (east façade – roof level)

Photograph No. 34: Significant honeycombing and concrete delamination, and ongoing erosion of mortar, parging and brick (west façade)

Photograph No. 35: Typical deteriorated and cracked cementitious parging, exposing spalled brick units (south façade)

Photograph No. 36: Rust staining on and below concrete window sill. Note significant misalignment of window base and brick courses (south façade)

Photograph No. 37: Typical sign of heavily deteriorated or missing caulking of joints surrounding window frame (west façade)

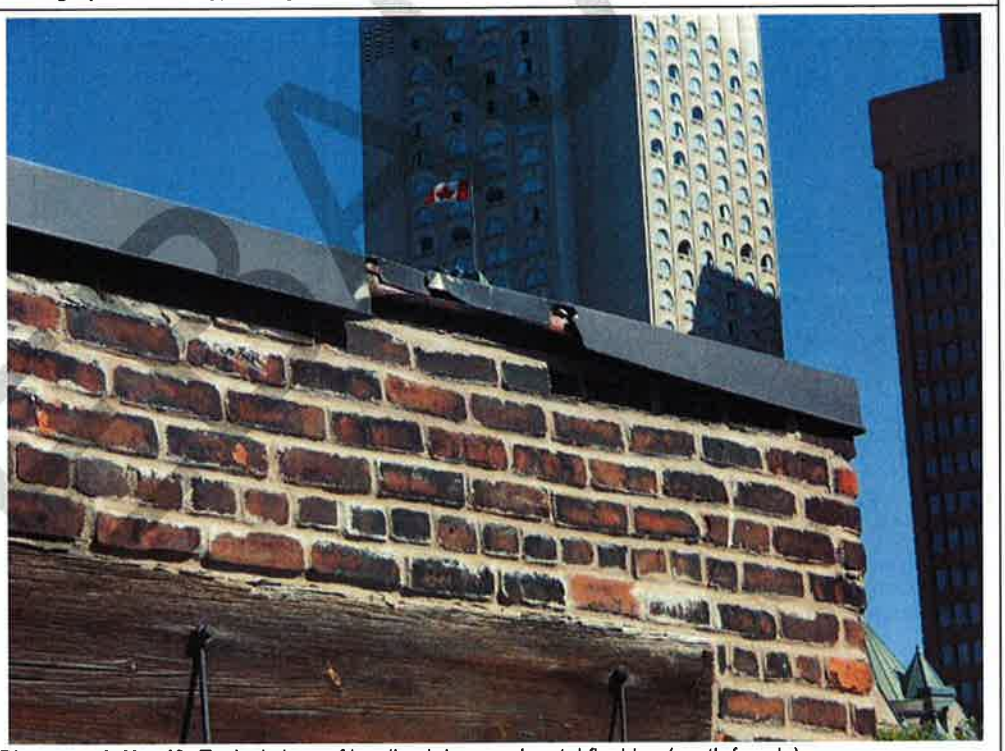
Photograph No. 38: Typical sign of missing window sill or metal flashing (west façade)

Photograph No. 39: Out of axis concrete window sill and localized step cracking of the mortar joints (south façade)

Photograph No. 40: Typical sign of heavily corroded, warped and poorly sealed metal sheet siding (west façade)

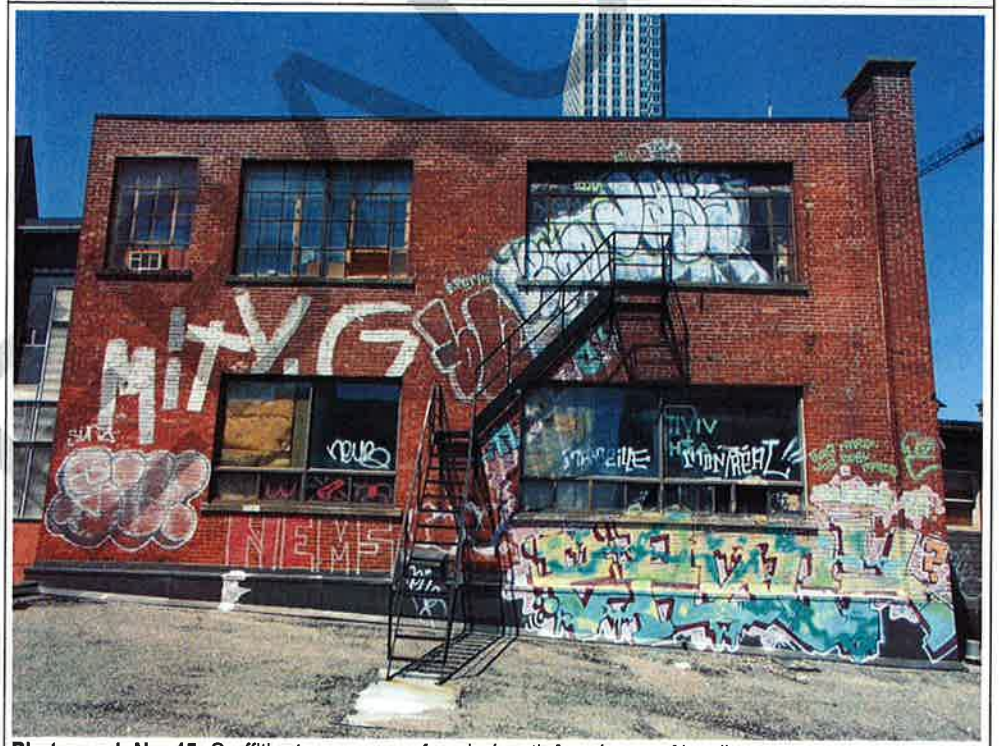
Photograph No. 41: Typical sign of external sprinkler network exhibiting widespread corrosion (south façade)

Photograph No. 42: Typical signs of inadequate anchoring of the sprinkler pipe (south façade)



Photograph No. 43: Typical signs of localized damaged metal flashing (south façade)

Photograph No. 44: Heavily deteriorated, rotted and splintered wood frame around exhaust duct (west façade)



Photograph No. 45: Graffiti art on masonry facade (south façade – roof level)

Photograph No. 46: Hairline cracking of the stone panel (north façade)

4.2 Summary and Discussion of Results

Based on the results of our visual assessment of the exterior walls of the property located at 1162 to 1190 St Antoine Street West, there are clear symptoms and evidence of deterioration affecting many exposed areas of the exterior wall of the buildings.

In summary, those areas considered to represent the most severe and critical symptoms of degradation/deterioration identified during our preliminary façade assessment included:

- Severe deflection, displacement or out-of-axis sections of the brick and stone masonry;
- Severe cracking of the stone and / or elements and / or cornice.

Some of the less critical but serious symptoms of deterioration noted included:

- Cracked, spalled and deteriorated bricks, stone and concrete elements;
- Localized bowing/deflection of masonry wall sections (to be monitored);
- Widespread debonded, fissured and eroded mortar joints;
- Unconventional and questionable use of various vertical cladding materials;

- Extensive vegetation growth within vertical envelope materials;
- Localized staining from efflorescence, rust and graffiti art on the various façades;
- Generalized cohesive and adhesive failure of most caulking joints surrounding window units;
- Deteriorated windows and window elements (missing window sills, damaged window frame, missing glazing, heavily corroded and sagging steel lintels);
- Heavily deteriorated and rotted wood elements;
- Isolated localized deficiencies such as inadequate anchoring of externally mounted sprinkler network.

While many of the symptoms of deterioration along the vertical envelope are related to normal wear, tear and weathering over decades of exposure, some of the most serious signs of damage are the result of:

i. Fracturing of large sections of stone and concrete due to the corrosion / weakening of embedded steel structure, reinforcement and anchors;
ii. Severe freeze-thaw damage to concrete, mortar and stone;
iii. Generalized abandonment and fire damage of the building (1162 building);
iv. Failure of previous concrete repairs on stone elements;
v. Uncontrolled moisture intrusion into masonry / stone wall system (via cracks / joints / rotted wood elements);
vi. Freeze-thaw damage of the masonry, concrete and stone elements;
vii. Poorly managed water run-off on façades surfaces;
viii. Normal aging and weathering of the stone, brick and wood elements;
ix. Expiration of useful service life of paint, sealants and mastics.

The façades also appear to be a mismatching of various cladding types and systems due to the many years of questionable maintenance practices, particularly of the roof penthouse walls at the 1180 building. Poor maintenance has also likely contributed to the poor performance of both water and air tightness of building envelope system, thus, promoting the accelerated and advanced degradation of the building façades.

5.0 Conclusion and Recommendations

Based on the results of our general condition assessment of the accessible façades of the two buildings respectively located at 1162 and 1180 St-Antoine Street West, Montreal, Quebec, we are able to conclude that the exterior wall cladding including the exterior brick/stone cladding, caulking joints and other architectural wall elements the building facades is generally in very poor condition with widespread visible evidence of both critical and serious deterioration that present a risk to public safety, both in the immediate and in the short term. Eight (8) areas of the building façades were specifically identified as displaying significant deterioration and / or potentially **unsafe** conditions.

The current condition of the building facades based upon the results of our survey strongly suggests that in order to address all the various deficiencies relating to the wall cladding and to reinstate the facades in a manner to ensure long term performance, service life, and public safety, an extensive corrective global repair program including partial or complete reconstruction of large portions of the building facades would need to be implemented.

An alternative approach towards rehabilitating the building facades that the client may also consider would involve a *phased* repair program. This *phased* program would typically include the design and execution of repairs in order to address, by order of priority, both the various symptoms and the causes of the individual deficiencies recorded.

In order to implement a *phased* approach towards addressing the deficiencies affecting the building facades, all the noted repair areas would be prioritized and categorized by order of urgency (*Critical, Important, Moderate, or Low),* as defined in Table No.1 of section 4.0. In recognition of the fact that it may be most practical and economical to group and execute all repairs over entire individual façades at the same time, a similar grading system (from A to F) was subsequently applied to each one of the building façades reviewed. Those façades which possessed a greater number of deficiencies which were deemed to be critical and required immediate corrective action were given a classification of A, while those façades which required the least attention in terms of corrective repairs were given a classification of F. Classifications of B, C, D and E were provided for building façades which were deemed to mostly require repairs over the next 2 to 10 years.

To aid in phasing the repair work, the tables below (Table No. 2 and Table No. 3) presents a classification for each deficiency grouped both by building system and by the type of repair required for each building. By applying the grade levels of urgency described above to each of the principle deficiencies identified during our survey, the following table was developed as

a means to distinguish between those deficiencies which require immediate attention, and those which are considered to be less critical and allow for short delay in repairs without risk to pedestrian safety or risk to the integrity of the vertical building envelope.

Table No. 2 : Priority Grade for Building Façades

Grade	Priority	Definition
A	IMMEDIATE	Deficiencies which pose **imminent risk to public safety** and/or be considered a high risk to the overall integrity of a significant portion of the building envelope. ***Immediate Action Required***
B	HIGH *(within 2 years)*	Widespread or localized deficiencies which may in time compromise the integrity of localized areas of the building envelope, be a source of water ingress, and/or could soon be a risk to public safety in the short term. ***Corrective Action Required in the Short Term (within to 24 months).***
C	MEDIUM *(within 4 years)*	**Significant Deterioration** – Symptoms of high concentration level of deterioration of the wall cladding but with no immediate observable risk of collapse or to pedestrian safety. ***Corrective Action Required in the Medium Term (within 4 years).***
D		**Intermediate Deterioration** – Symptoms of less recurrent deficiencies and/or deficiencies associated with less severe or less immediate consequences. ***Corrective Action Required in the Medium Term (within 4 years).***
E	MEDIUM-LOW *(within 7 years)*	**Limited Deterioration** – Symptoms of minor deterioration noted with negligible level of observable risk to pedestrian safety. ***Corrective Action Required in the Long Term (within 7 years)***
F	LOW *(within 10 years)*	**Negligible Deterioration** – Deficiencies which are present sporadically and/or considered as having a minimal effect/impact on the integrity of the building envelope over the next 10 years. ***Corrective Action Required in the Long Term (within 10 years)***

Table No. 3: Priority for Observed Deficiencies

OBSERVED DEFICIENCIES	1162 BUILDING		1180 BUILDING	
	GRADE: DEGREE OF URGENCY	PRIORITY	GRADE: DEGREE OF URGENCY	PRIORITY
STONE				
Stone Spalling / Fracturing / Bowing (CRITICAL) (CZ)	A	Immediate	A	Immediate
Stone Deterioration (SD)	B	Short Term		
Cracking of Stone (CS)	B	Short Term	D	Medium Term
Stone Mortar Joint Deterioration (MS)	B	Short Term	B	Short Term
Bowing of Stone (BW) (CZ)	C	Medium Term	B	Short Term
Flaking of stone surface (FS)	C	Medium Term	E	Medium to long term
CONCRETE				
Retaining wall/ former foundation wall	A	Immediate	N/A	N/A
Concrete Deterioration (DC)	D	Medium Term	B	Short Term
Concrete Fissuring (CC)	D	Medium Term	C	Medium Term
Deficient Concrete Retaining Wall	B	Short Term (Further Study)	N/A	N/A
Parging Deterioration (DP)	N/A	N/A	E	Medium to long term
BRICK				
Bowing of Brick (BB) (CRITICAL) (CZ)	A	Immediate	A	Immediate
Spalling of (SB)	B	Short-Term	B	Short-Term
Mortar Joint Deterioration (MJ)	B	Short Term	B	Short Term
Cracking of Brick (CB)	C	Medium Term	C	Medium Term
WINDOWS/SEALANTS				
Caulking/Mastic Failure	C	Medium Term	B	Short Term
Corrosion and Sagging of Steel Lintels (CL) (SL)	B	Short Term	C	Medium Term
Cracked Concrete Window Sill (CW)	C	Medium Term	B	Short Term
Deteriorated Window Sill (spalled, delam.) (DW)	B	Short Term	B	Short Term
Missing Window Sill (MS)	N/A	N/A	B	Short Term
Deteriorated Window Unit	B	Short Term	B	Short Term
OTHER				
Deteriorated Wooden Element (WO)	B	Short Term	B	Short Term
Efflorescence (EF)	F	Long Term	F	Long Term
Rust staining (RS)	E	Long Term	E	Long Term
Water run-off, Pollution Staining, Graffiti (GS)	E	Long Term	E	Long Term

Those areas or conditions designated as **"critical"** require immediate action to either temporary stabilize or to repair these sections of the building façades. Deterioration/deficiencies at other areas of the building façades designated as **"serious"** will require some form of global repair program and maintenance strategy over the next 24 months in order to address the issues that may affect the integrity and performance of the building envelope in the short term.

5.1 Recommendations for Phased Program of Repairs

As a means to address the deficiencies noted during the condition assessment of the building façades as part of a phased program of repairs, we recommend that the Client first proceeds with the implementation of immediate preventive measures in order to address pedestrian safety concerns. The following phased corrective repair program addresses conditions which affect the short and long term performance and condition of the exterior wall cladding of the building façades:

1) **Phase I: Emergency Safety Measures** ***(UNSAFE CONDITIONS – 1162 and 1180)***
   The first phase of the corrective work program is to be implemented within the shortest delay possible, and would include addressing all critical zones identified in the survey, as follows:

   Item No. 1 – Repair or stabilization of critical portions of the masonry brick and stone cladding
   The areas of the brick and stone masonry identified as ***Critical Zones*** during the survey should be addressed by means of temporary stabilization and/or emergency dismantling and rebuilding of the affected sections of the facades in order to ensure public safety against falling bricks or stones. It is therefore recommended that a qualified masonry contractor be engaged to secure and conduct the required repairs at all critical areas within the shortest possible delay. If not addressed in the short-term, the potential risk of suspect sections of the brick masonry or stone wall cladding detaching and falling from the building façades will continue to increase.

   Building occupants should also be advised of the existing conditions of the façade, and areas adjacent to the façades considered at high risk should be cordoned off to prevent pedestrian/occupant traffic until which time appropriate corrective work to the façades has been executed.

2) **Phase II: Supplementary Investigations (TIME SENSITIVE)**

The second phase of the corrective work program would be to complete four (4) supplementary investigations with the objectives of determining or confirming the actual cause for several deficiencies recorded along the building facades. The information obtained from the following investigations will provide the necessary information required to provide a more accurate assessment of the various conditions, and will also serve to provide the design professional with information necessary to allow for the development of appropriate corrective design solutions. The four (4) supplementary investigations proposed are described below.

- **Supplementary investigation of structural condition of the 1162 building (uninhabited and fire damaged) (TIME SENSITIVE)**

  An assessment of the structural components of the 1162 building, including the exterior balconies, penthouses, foundation and floor framing must be conducted prior to proceeding to any non-critical intervention on the building in order to ensure that adequate structural integrity is achieved. A qualified structural engineer should be engaged to conduct the assessment.

- **Supplementary survey of the façades currently hidden or inaccessible (1162-1180 buildings) (TIME SENSITIVE)**

  An assessment of the façades sections that are currently hidden by advertisement billboards and/or located in the small alley located between the two buildings should be conducted in order to assess if there are any potential risks to public safety and to ascertain the actual condition of these façades. Specifically, these areas are: the north façade, approximately 25% of the east façade, and the lower portion of the west façade of the 1160 building, as well as the east façade of the 1180 building.

- **Supplementary investigation of neighboring retaining wall/former foundation wall at 1162 building (TIME SENSITIVE)**

  A detailed condition assessment of the cast-in-place concrete wall (approximately 150 lin-ft.) located at the rear of the 1162 building should be conducted in order to evaluate the degree and scope of deterioration of the structure. The expertise should include hammer sounding, sampling and laboratory material testing of the concrete in order to evaluate the current condition of the wall and establish appropriate corrective measures.

- **Item No. 5 – Infrared Thermography (1180 building)**
  An infrared thermographic scan is recommended in order to evaluate the current performance of the vertical building envelope with respect to air tightness. The thermography survey would allow for the graphical global representation of the thermal related anomalies of the building envelope to be located in order to be addressed. This survey must be conducted during the winter season while the building is being heated.

3) **Phase III: Corrective Interventions (within 2 years)**
   Given the widespread nature and severity of the deficiencies observed during our study and the potential risk to public safety, it is recommended that all the deficiencies identified in this report, and those revealed in future studies be addressed. The various corrective interventions required to resolve all the deficiencies relating to both building façades identified to date would include the following:

   1. Replacement of all cracked, spalled and missing brick units;
   2. Demolition and reconstruction of all sections of the brick masonry wall exhibiting signs of bowing / deflection;
   3. Re-pointing of all eroded, cracked or spalled mortar in all affected sections of the brick and stone walls;
   4. Stitching, patching or replacement of fractured, delaminated and spalled section of the stonework and concrete window sills;
   5. Repair of all deteriorated portions of the cementitious parging;
   6. Global rehabilitation or replacement of all deteriorated and rotten wooden elements and wood frames.
   7. Localized re-caulking of all the exterior joints of the vertical building envelope presenting signs of deterioration, including fenestration elements, mechanical elements and unsealed openings;
   8. Replacement of all broken window panes;
   9. Replacement of all corroded and / or sagging steel lintels;
   10. Replacement of all deteriorated metal sheets;
   11. Dismantling of the externally mounted sprinkler sections of adequate anchors to support the pipelines;
   12. Repairs to local displaced or deteriorated metal flashings;
   13. Cleaning the portions of the brick and stone walls exhibiting staining.

The highest priority should be given to those conditions deemed to be an elevated risk to tenant/pedestrian safety and to those conditions which represent the highest degree of

damage/deterioration and risk to the integrity of the building envelope or structure in the case of the 1180 building. As for the 1162 building, further studies should be completed in order to evaluate the most effective approach to resolving the various issues presented.

Based upon our experience and subject to the results of future investigations and further studies as described above, the preliminary information gathered thus far suggests that construction costs for all corrective work to rehabilitate the facades of both buildings to meet current standards would likely be in the order of $7,500,000 to $10,000,000 (plus taxes).

Note that the budget cost provided excludes the added costs of:

- Professional fees for the pending investigation, preparation of plans and design specification an contractual documents;
- Construction review and laboratory quality control fees.

Given the generally dilapidated state of the buildings and the high cost to rehabilitate the facades, the Client may also want to consider conducting a feasibility study to explore the possibility of demolishing and rebuilding one or both buildings as a viable option.

At the Client's request, Edifice Experts would be prepared to provide the required offer of services to assist the client with the supplementary investigations as described within this report, as well as for all required plans and specifications required for repairs.

We trust the above to be in order. However, should you have any further questions regarding this report and our recommendations, we would be available to discuss or clarify any of these items, at your earliest convenience.

6.0 Limitations

6.1 Out of Scope Limitations

As this study is principally visual, issues that are considered ***Out-of-Scope*** can generally include any condition of the subject building that cannot be readily ascertained during a typical walkthrough investigation. The report is *explicitly*:

- ***NOT*** technically exhaustive, and excludes concealed physical deficiencies and hidden defects.
- ***LIMITED*** to vantage points that are accessible to the assessor during the course of the investigation.

In addition to the general ***Out-of-Scope*** issues, the following specific technical limitations of this investigation should also be noted:

- Our mandate did not include non-destructive or destructive testing, openings of roofing systems, or penthouse enclosures.
- Our mandate did not include verification or engineering calculations of the building or component design.
- Our mandate did not include the validation of the verticality of the façade, while making use of instrumentation tools.
- Our mandate did not include a review of the National Building and Fire Codes or compliance of the building envelope components to these codes.
- Our mandate did not include any verification for the presence of organic bacterial growth organisms, commonly referred to as mold.
- Cost estimates for repairs presented in this report are not based on quantitative surveying, detailed engineering calculations or industry experience and are intended only for global budgeting purposes.
- Our mandate did not include an evaluation of the property for the presence of an animal infestation (or extent thereof) for any type of pests such as wood-damaging organisms, rodents, or insects, nor does it include recommendations for treatment pertaining to such.
- Due to the construction techniques and physical properties of the many materials used in façade construction, and the inherent limitations on detecting concealed

façade distress based on limited observation and probes, conducting a façade inspection does not assure that all unsafe conditions will be identified.

- Due to the access apparatus limitations, some small areas of the façades were inaccessible to conduct an adequate tactile evaluation of the façades.

The examples therein do not constitute an exhaustive list of limitations. In fact, any barrier that prevents or limits the direct, continuous and safe visual observation of a system or item will render the item Out-of-Scope.

6.2 Legal Limitations

This report is intended solely for the Client(s) named. The material in it reflects our best judgement in light of the information available to **Edifice Experts** at the time of preparation. No portion of this report should be used as a separate entity, as it is written to be read in its entirety. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, is the responsibility of such third parties.

The information presented in this report was obtained through interviews, a review of available drawings, and observations of the subject building. Documentation and data provided by the Client(s), designated representatives of the Client(s), interested third parties or subcontractors not retained by Edifice Experts and referred to in the preparation of this assessment, have been used and referenced with the understanding that Edifice Experts assumes no responsibility or liability for their accuracy.

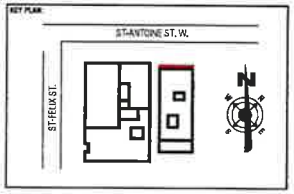
The findings and conclusions of the Condition Assessment of the Vertical Building Envelope were developed in accordance with generally accepted standards of practice within the industry in the jurisdiction in which the building is located, the information made available, and/or professional judgment. The findings represent the best judgment of the assessor during the time of the inspection and cannot warrant against undiscovered deficiencies. Edifice Experts will not accept liability for any loss, injury, claim, or damage arising directly or indirectly from any use or reliance on this report by any person or entity other than the addressee.

Changes in the use of the property, renovations or modifications made to the property may affect the findings and conclusions stated in this report. Therefore, it is important that the Client(s) periodically re-evaluates the façades and reviews operations that may potentially impact performance of the building envelope.

Appendix A

- Illustrated Synopsis of Vertical Envelope Deficiencies

KEY PLAN:



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK

SB — SPALLED BRICK
MJ — DETERIORATED OR CRACKED MORTAR JOINT
CB — CRACKED BRICK
BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE

FS — FLAKING OF STONE SURFACE
DS — DETERIORATED STONE (SPALLED/DELAMINATED)
MS — DETERIORATED OR CRACKED MORTAR JOINT
CS — CRACKED STONE
BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE

DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
CC — CRACKED CONCRETE
DP — DETERIORATED PARGING

WINDOWS

FC — FAILED CAULKING/SEALANT
CL — CORRODED STEEL LINTEL
SL — SAGGING STEEL LINTEL
CW — CRACKED CONCRETE WINDOW SILL
DW — DETERIORATED CONCRETE OR STONE WINDOW SILL, SPALLED OR DELAMINATED/EXPOSED STEEL REINFORCEMENT
MS — MISSING WINDOW SILL
WI — INTERMITTENT WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS

OTHER FAILURE / NOTIFICATION (SEE NOTE)
PHOTOGRAPH

EF — EFFLORESCENCE
WO — DETERIORATED WOOD
RS — RUST STAIN

GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

ÉDIFICEXPERTS

ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

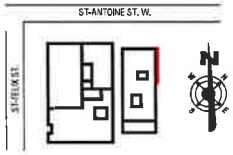
CLIENT: CADILLAC FAIRVIEW

PROJECT:
CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE:
1162 - NORTH ELEVATION (PARTIAL)
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E02D102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-01
CHECKED BY: D.J.ABRAHAM	

KEY PLAN



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK

SB — SPALLED BRICK
MJ — DETERIORATED OR CRACKED MORTAR JOINT
CB — CRACKED BRICK
BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE

FS — FLAKING OF STONE SURFACE
DS — DETERIORATED STONE (SPALLED/DELAMINATED)
MS — DETERIORATED OR CRACKED MORTAR JOINT
CS — CRACKED STONE
BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE

DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
CC — CRACKED CONCRETE
DP — DETERIORATED PARGING

WINDOWS

FC — FAILED CAULKING/SEALANT
CL — CORRODED STEEL LINTEL
SL — CORRODED STEEL LINTEL
CW — CRACKED CONCRETE WINDOW SILL
DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
MS — MISSING WINDOW SILL
WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS

OTHER FAILURE / NOTIFICATION (SEE NOTE)
PHOTOGRAPH

EF
WO
RS

GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

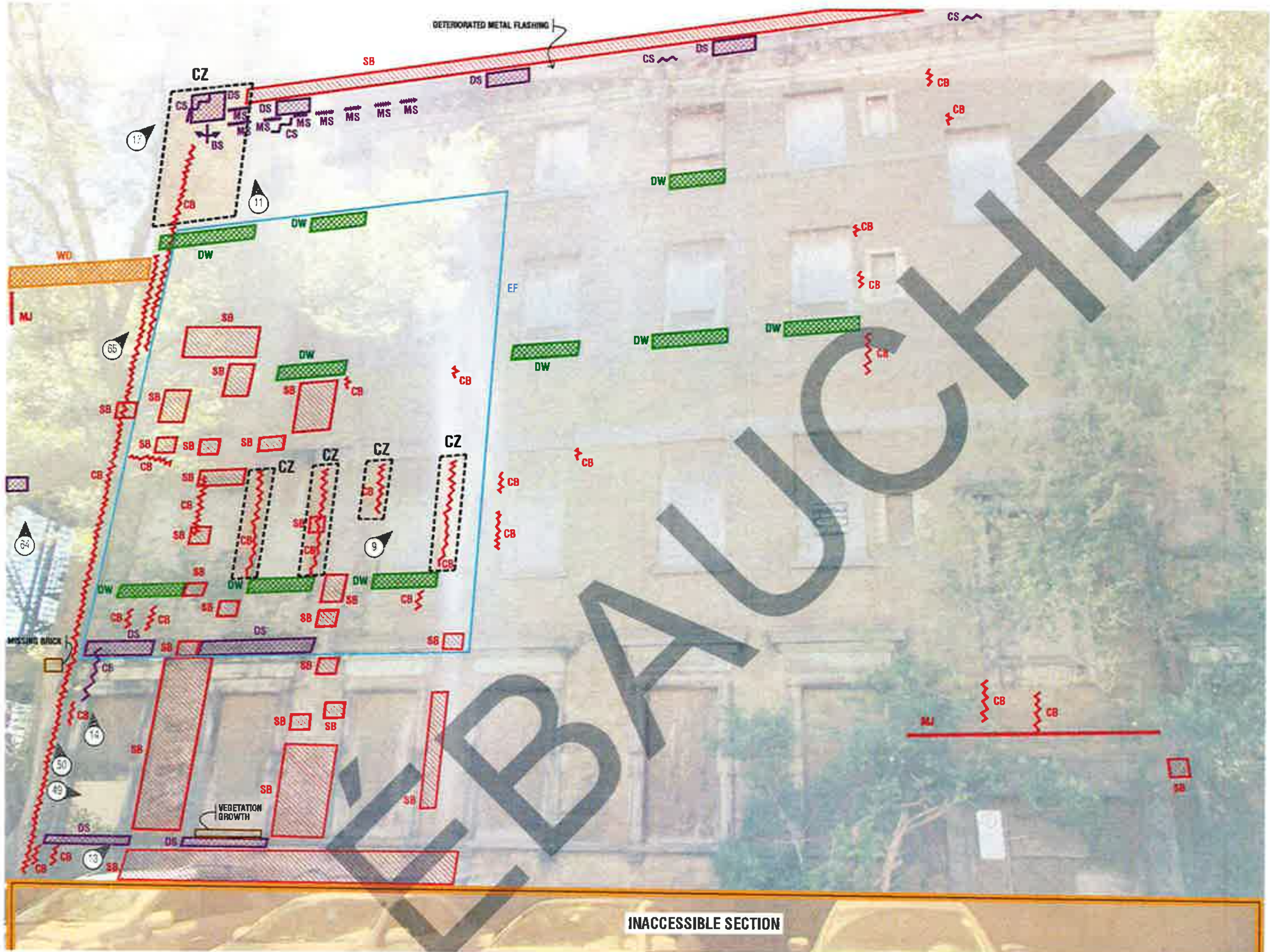
ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

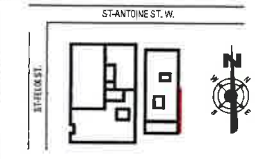
PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1182 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1182 - EAST ELEVATION (PARTIAL)
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-02
CHECKED BY: D.J.ABRAHAM	



KEY PLAN



LEGEND:

CZ	ADVANCED DETERIORATION / CRITICAL ZONE
BRICK	
SB	SPALLED BRICK
MJ	DETERIORATED OR CRACKED MORTAR JOINT
CB	CRACKED BRICK
BB	BOWING/DEFLECTION OF BRICK WALL SECTION
STONE	
FS	FLAKING OF STONE SURFACE
DS	DETERIORATED STONE (SPALLED/DELAMINATED)
MS	DETERIORATED OR CRACKED MORTAR JOINT
CS	CRACKED STONE
BS	BOWING/DEFLECTION OF STONE WALL
CONCRETE	
DC	DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
CC	CRACKED CONCRETE
DP	DETERIORATED PARGING
WINDOWS	
FC	[illegible]
CL	CORRODED STEEL LINTEL
SL	SAGGING STEEL LINTEL
CW	CRACKED CONCRETE WINDOW SILL
DW	DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
MS	MISSING WINDOW SILL
WI	DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS

(box)	OTHER FAILURE / NOTIFICATION (SEE NOTE)
(symbol)	PHOTOGRAPH
EF	EFFLORESCENCE
WO	DETERIORATED WOOD
RS	RUST STAINS
GS	GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

ÉDIFICEXPERTS

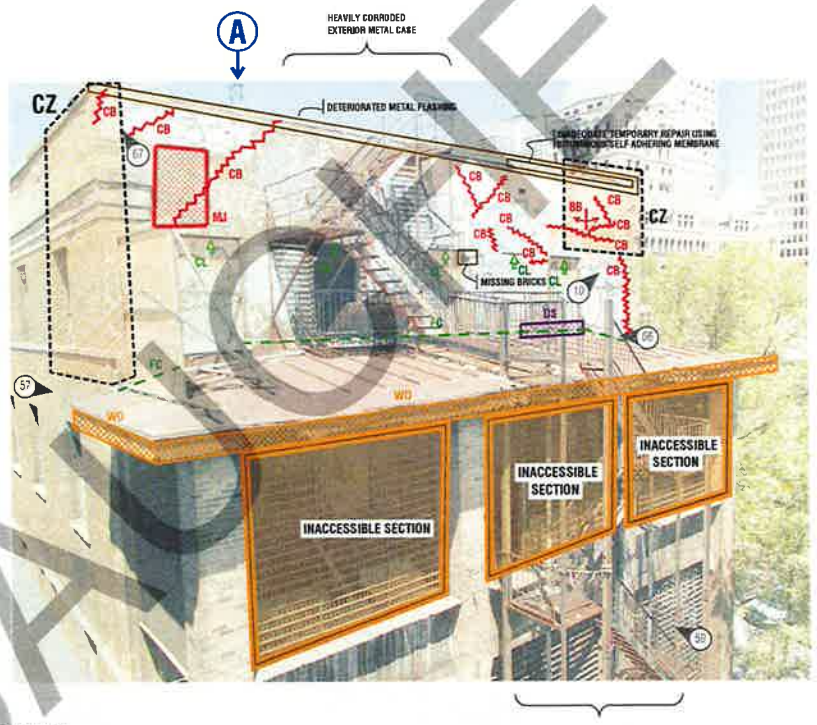
ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

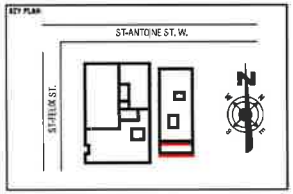
PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1162 - EAST ELEVATION (PARTIAL)
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-03
CHECKED BY: D.J.ABRAHAM	



KEY PLAN



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK
- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE
- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE
- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS
- FC — FAILED CAULKING/JOINTS
- CL — CORRODED STEEL LINTEL
- SL — SAGGING STEEL LINTEL
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS
- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

- EF — EFFLORESCENCE
- WO — DETERIORATED STEEL WINDOW
- RS — RUST STAINS
- GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

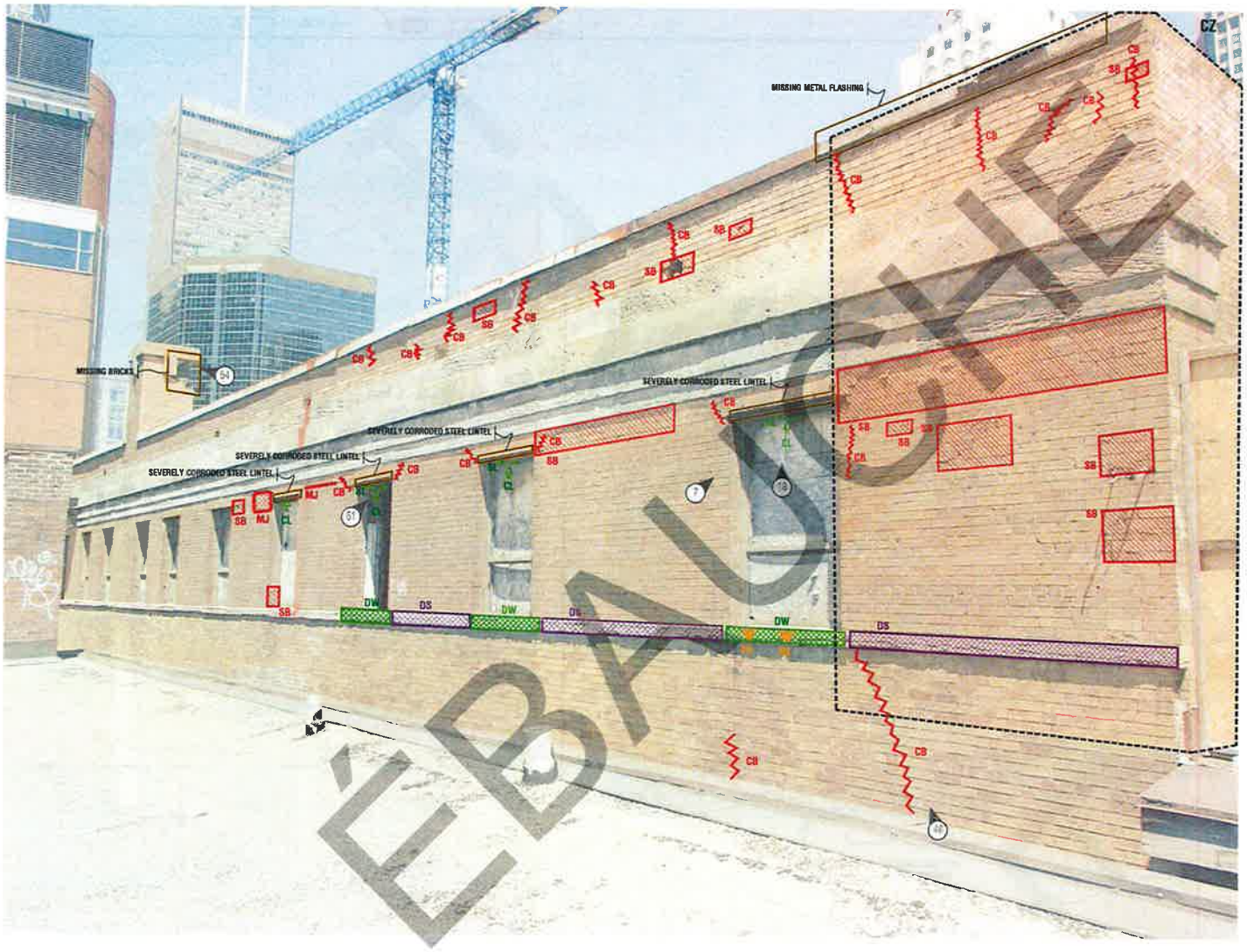
CONSULTANT:
ÉDIFICE EXPERTS
ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

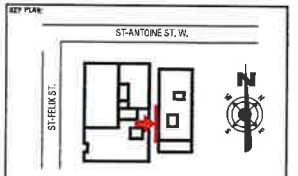
PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1182 TO 1190 ST ANTOINE WEST
MONTREAL (QUEBEC)

TITLE: 1182 - SOUTH ELEVATION
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-04
CHECKED BY: D.J.ABRAHAM	



KEY PLAN:



LEGEND:

CZ	ADVANCED DETERIORATION / CRITICAL ZONE
BRICK	
SB	SPALLED BRICK
MJ	DETERIORATED OR CRACKED MORTAR JOINT
CB	CRACKED BRICK
BB	BOWING/DEFLECTION OF BRICK WALL SECTION
STONE	
FS	FLAKING OF STONE SURFACE
DS	DETERIORATED STONE (SPALLED/DELAMINATED)
MS	DETERIORATED OR CRACKED MORTAR JOINT
CS	CRACKED STONE
BS	BOWING/DEFLECTION OF STONE WALL
CONCRETE	
DC	DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
CC	CRACKED CONCRETE
DP	DETERIORATED PARGING
WINDOWS	
FC	MISSING CAULKING/MASTIC
CL	CORRODED STEEL LINTEL
SL	SAGGING STEEL LINTEL
CW	CRACKED CONCRETE WINDOW SILL
DW	DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
MS	MISSING WINDOW SILL
WI	DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS

	OTHER FAILURE / NOTIFICATION (SEE NOTE)
P	PHOTOGRAPH
EF	
WO	
RS	
GS	GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

EDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

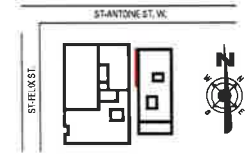
CLIENT: CADILLAC FAIRVIEW

PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1162 - WEST ELEVATION (PARTIAL)
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-05
CHECKED BY: D.J.ABRAHAM	

KEY PLAN



LEGEND:

CZ	ADVANCED DETERIORATION / CRITICAL ZONE

BRICK

SB	SPALLED BRICK
MJ	DETERIORATED OR CRACKED MORTAR JOINT
CB	CRACKED BRICK
BB	BOWING/DEFLECTION OF BRICK WALL SECTION

STONE

FS	FLAKING OF STONE SURFACE
DS	DETERIORATED STONE (SPALLED/DELAMINATED)
MS	DETERIORATED OR CRACKED MORTAR JOINT
CS	CRACKED STONE
BS	BOWING/DEFLECTION OF STONE WALL

CONCRETE

DC	DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
CC	CRACKED CONCRETE
DP	DETERIORATED PARGING

WINDOWS

FC	
CL	
SL	
CW	
DW	
MS	
WI	

* SEE LEGEND CONTINUATION BELOW

CONSULTANT

ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT

CADILLAC FAIRVIEW

PROJECT

CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE

1162 - WEST ELEVATION (PARTIAL)
LOCATION OF DEFICIENCIES

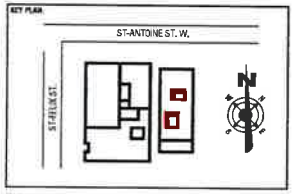
DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-06
CHECKED BY: D.J.ABRAHAM	

LEGEND (CONTINUED)

MISCELLANEOUS

	OTHER FAILURE / NOTIFICATION (SEE NOTE)
	PHOTOGRAPH
EF	
WO	
RS	
GS	GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

KEY PLAN



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK
- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE
- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE
- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS
- FC — FAILED CAULKING/MASTIC
- CL — CORRODED STEEL LINTEL
- SL — SAGGING STEEL LINTEL
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/CRACKED & STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS
- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

EF — EFFLORESCENCE
WO — INTERNAL ICE MELT
RS — RUST STAIN
GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

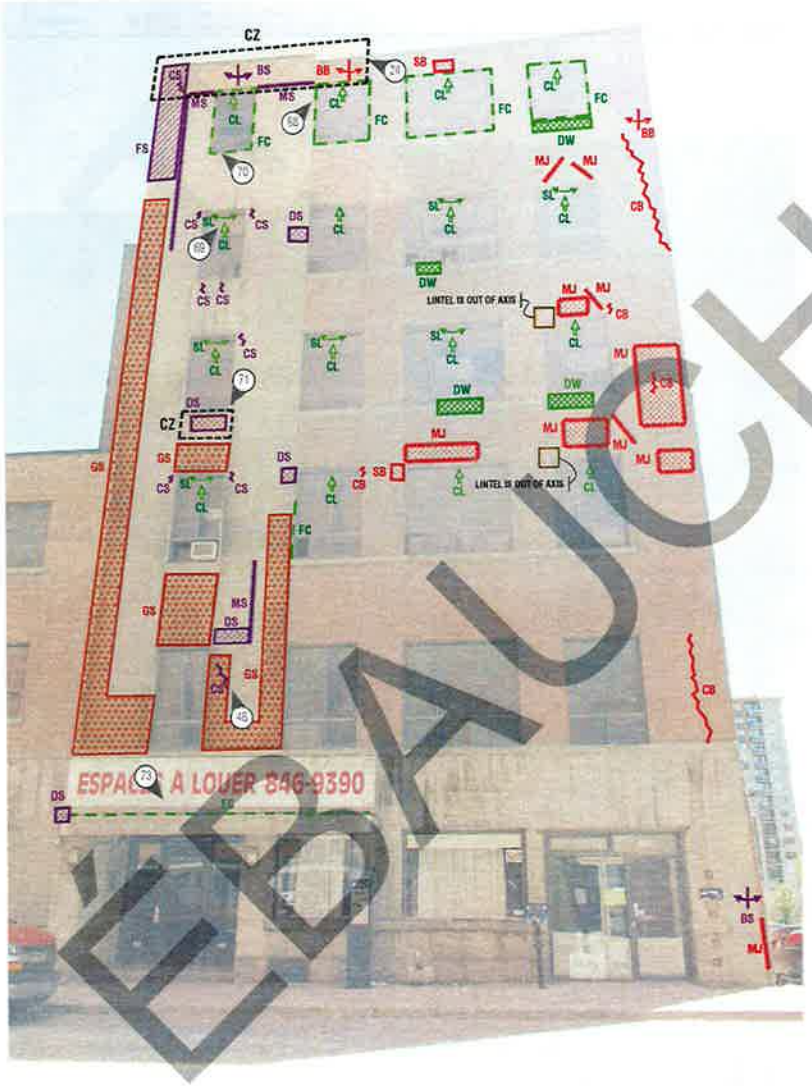
ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

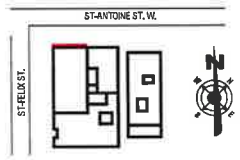
PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1162 - WEST ELEVATION (PENTHOUSES)
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-07
CHECKED BY: D.J.ABRAHAM	



KEY PLAN:



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK
- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE
- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE
- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS
- FC — FAILED CAULKING/MASTIC
- CL — CORRODED STEEL LINTEL
- SL — SAGGING STEEL LINTEL
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS
- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

- EF — EFFLORESCENCE
- WD — DETERIORATED WOOD
- RS — RUST STAIN
- GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1152 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1180 - NORTH ELEVATION (PARTIAL)
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-08
CHECKED BY: D.J.ABRAHAM	

KEY PLAN:

LEGEND:

CZ	ADVANCED DETERIORATION / CRITICAL ZONE
BRICK	
SB	SPALLED BRICK
MJ	DETERIORATED OR CRACKED MORTAR JOINT
CB	CRACKED BRICK
BB	BOWING/DEFLECTION OF BRICK WALL SECTION
STONE	
FS	FLAKING OF STONE SURFACE
DS	DETERIORATED STONE (SPALLED/DELAMINATED)
MS	DETERIORATED OR CRACKED MORTAR JOINT
CS	CRACKED STONE
BS	BOWING/DEFLECTION OF STONE WALL
CONCRETE	
DC	DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
CC	CRACKED CONCRETE
DP	DETERIORATED PARGING
WINDOWS	
FC	[illegible]
CL	CORRODED STEEL LINTEL
SL	SAGGING STEEL LINTEL
CW	CRACKED CONCRETE WINDOW SILL
DW	DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
MS	MISSING WINDOW SILL
WI	DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS

- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

EF	[illegible]
WO	[illegible]
RS	[illegible]
GS	CONTROLLED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

EDIFICE EXPERTS

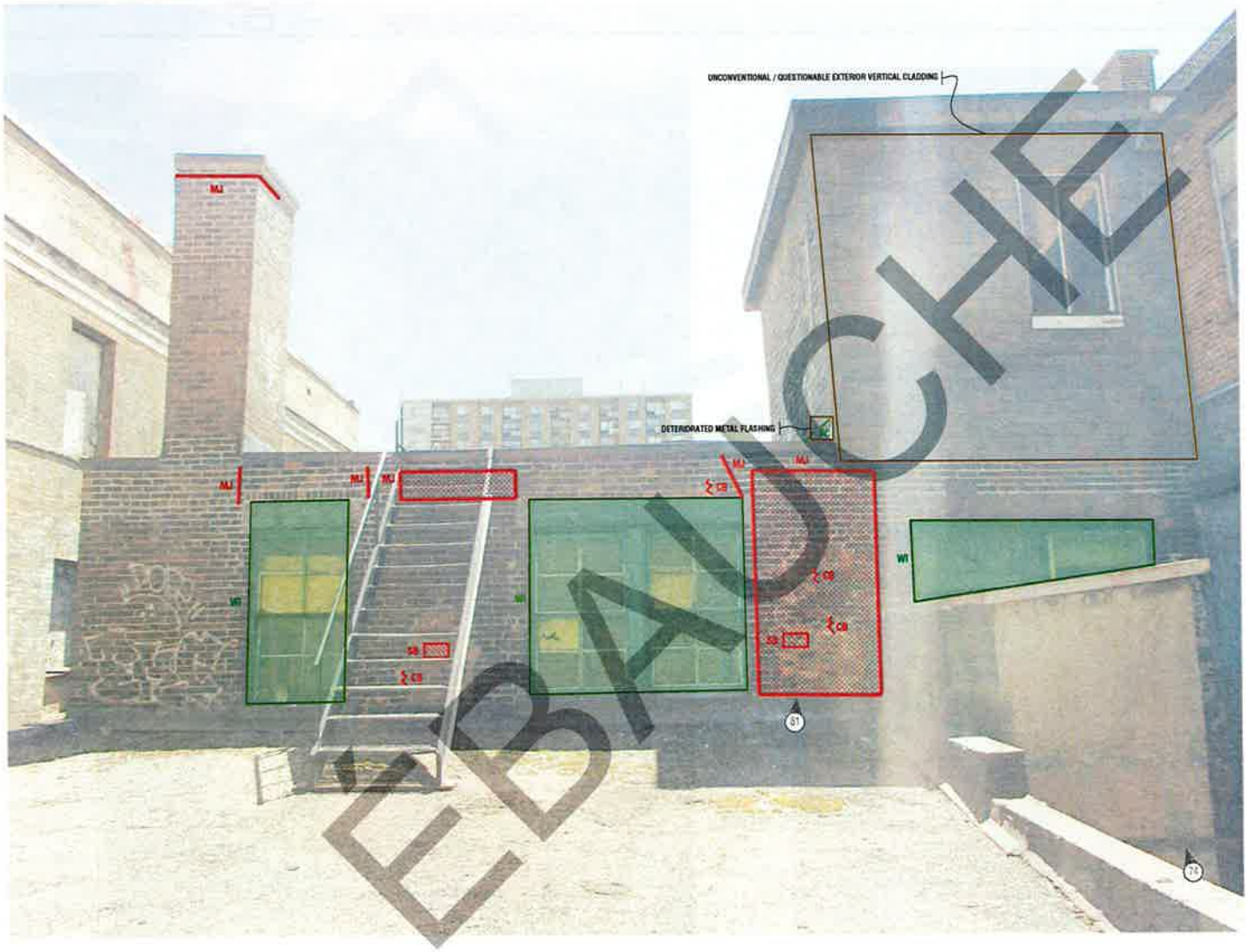
EDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: **CADILLAC FAIRVIEW**

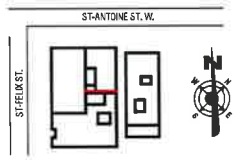
PROJECT: **CONDITION ASSESSMENT OF THE BUILDING FACADES**
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: **1180 - NORTH ELEVATION (PARTIAL)**
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E02B102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E02B102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: **EE-09**
CHECKED BY: D.J.ABRAHAM	



KEY PLAN



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK

- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE

- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE

- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS

- FC — FAILED CAULKING/MASTIC
- CL — CORRODED STEEL LINTEL
- SL — SAGGING STEEL LINTEL
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS

- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

- EF — EFFLORESCENCE
- WO — EFFLORESCENCE
- RS — RUSTING
- GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

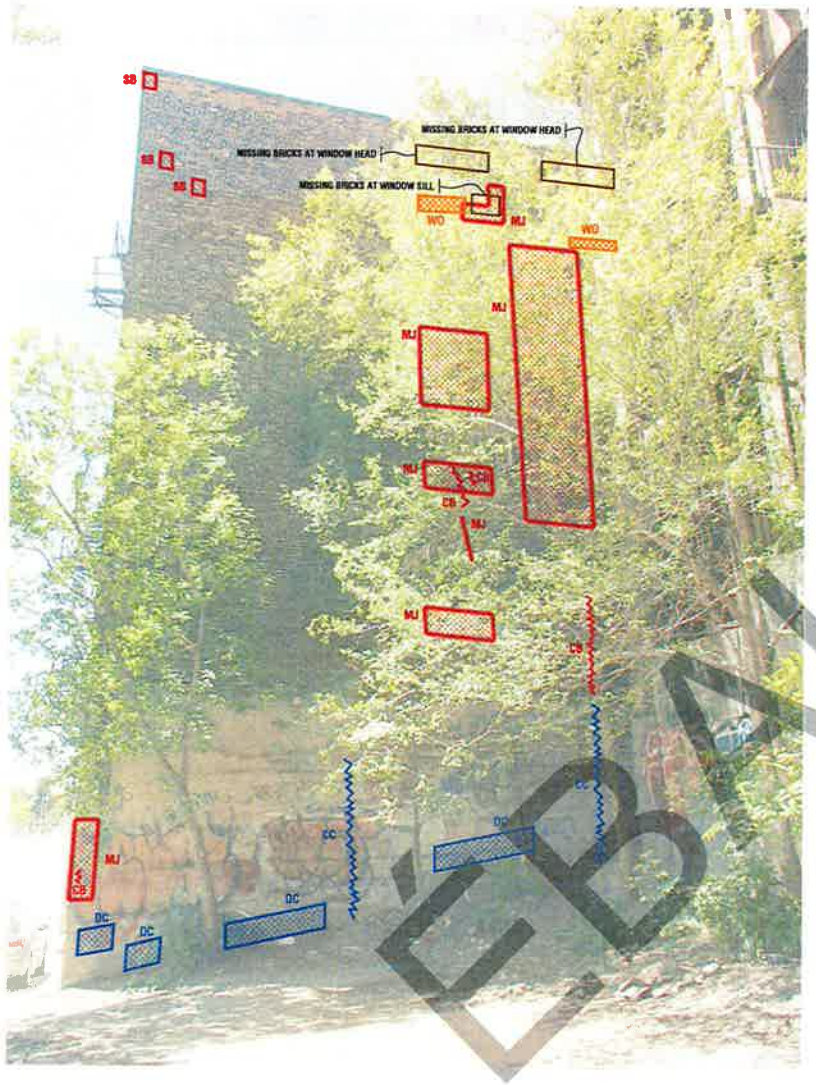
ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

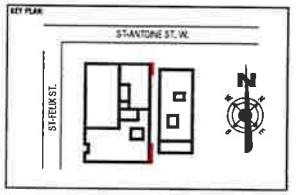
PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1180 - NORTH ELEVATION - ROOF LEVEL
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-10
CHECKED BY: D.J.ABRAHAM	



KEY PLAN



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK
- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE
- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE
- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS
- FC — FAILED CAULKING/MASTIC
- CL — CORRODED STEEL LINTEL
- SL — SAGGING STEEL LINTEL
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR MORTAR WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS
- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

- EF — EFFLORESCENCE
- WO — DETERIORATED WOOD
- RS — RUST STAIN
- GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

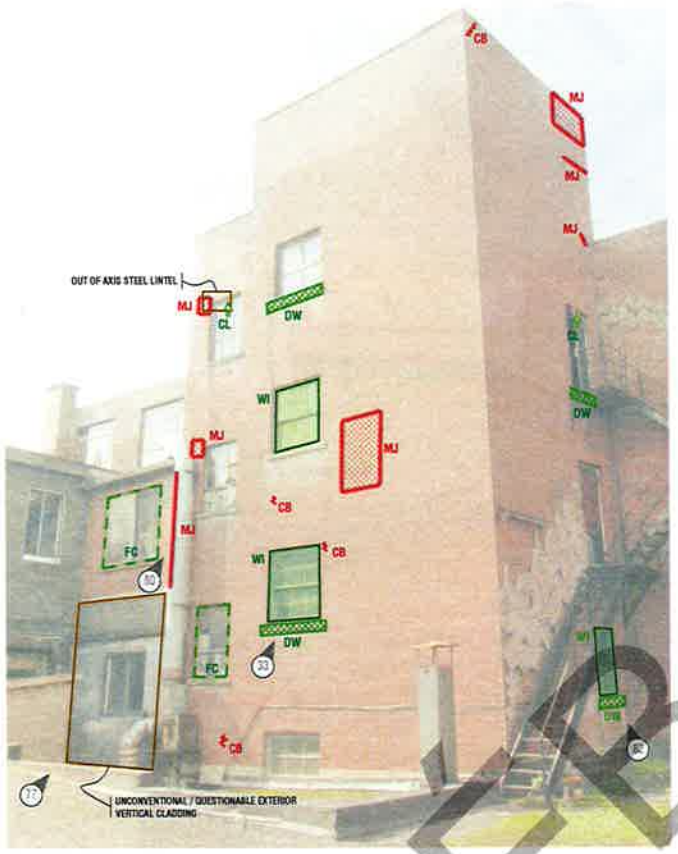
ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

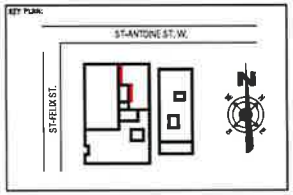
PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1152 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1180 - EAST ELEVATION (PARTIAL)
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-11
CHECKED BY: D.J ABRAHAM	



KEY PLAN:



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK
- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE
- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE
- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS
- FC — FAILED CAULKING/MASTIC
- CL — CORRODED STEEL LINTEL
- SL — SAGGING STEEL LINTEL
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS
- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

- EF — EFFLORESCENCE
- WO — DELAMINATED WOOD
- RS — RUST STAIN
- GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

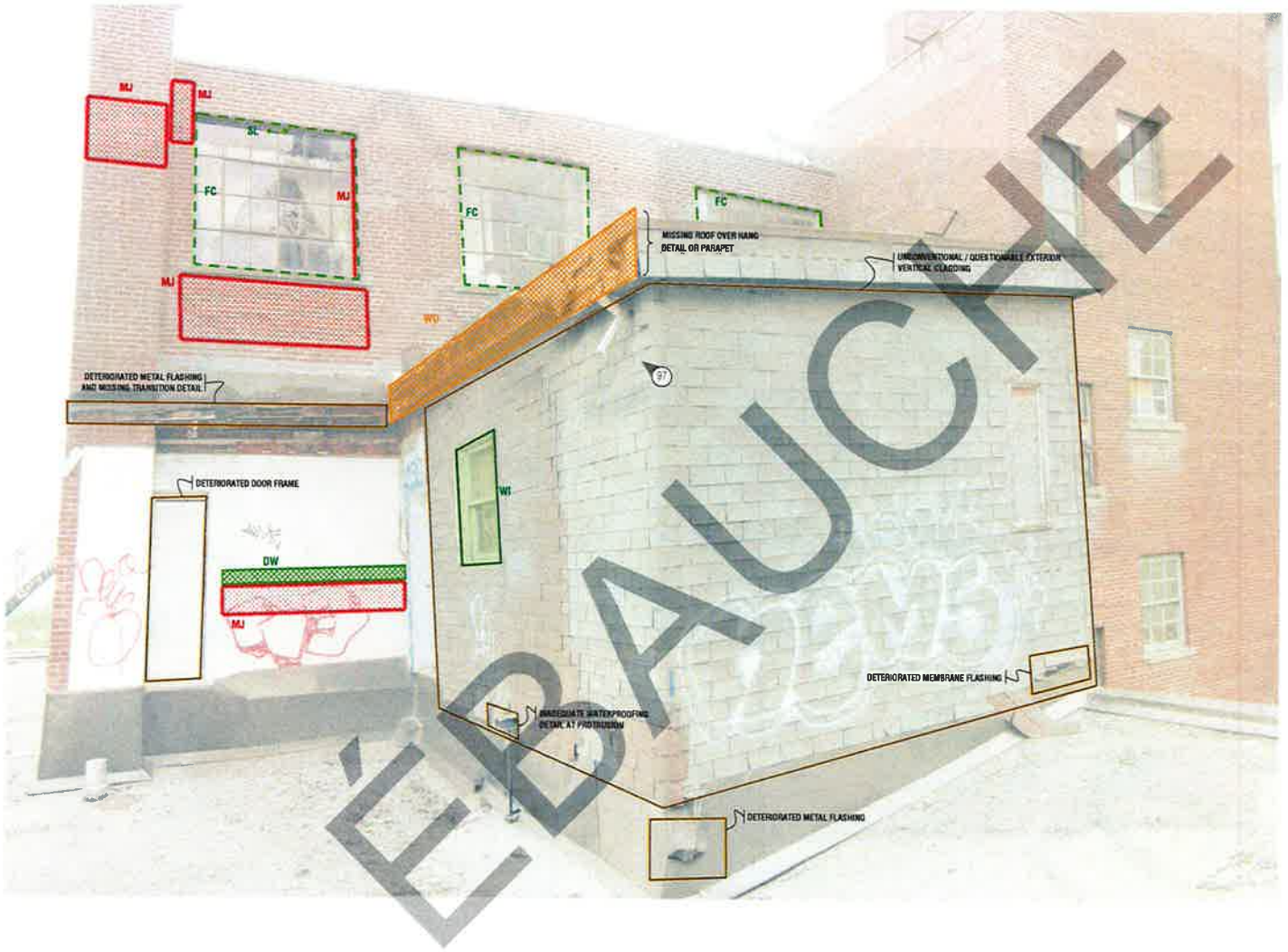
ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1182 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1190 - EAST ELEVATION - ROOF LEVEL
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-12
CHECKED BY: D.J.ABRAHAM	



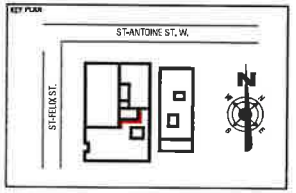
LEGEND (CONTINUED)

MISCELLANEOUS

- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

EF
WO
RS
GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

KEY PLAN



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK

- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE

- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE

- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS

- FC — FAILED CAULKING/MASTIC
- CL — CORRODED STEEL UNITS
- SL — SAGGING STEEL UNITS
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

CONSULTANT:

ÉDIFICE EXPERTS

ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

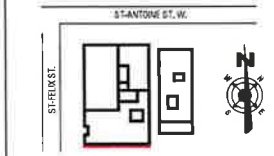
CLIENT: CADILLAC FAIRVIEW

PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1180 - EAST ELEVATION - ROOF LEVEL
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-13
CHECKED BY: D.J ABRAHAM	

KEY PLAN



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK
- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE
- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE
- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS
- FC — FAILED CAULKING/MASTIC
- CL — CORRODED STEEL LINTEL
- SL — SAGGING STEEL LINTEL
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS
- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

- EF — EFFLORESCENCE
- WO — ALGAE/MOSS GROWTH
- RS — RUST STAIN
- GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

ÉDIFICE EXPERTS

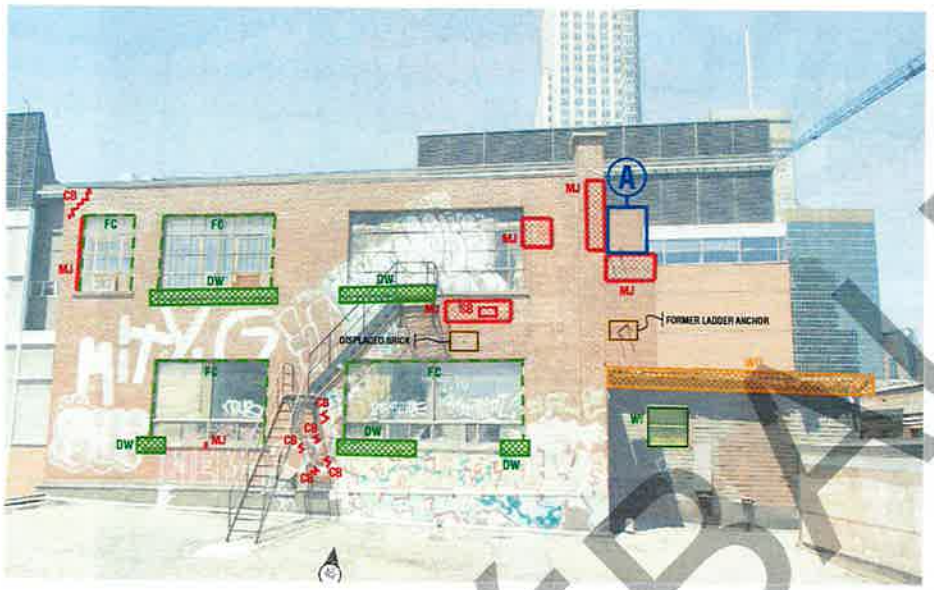
ÉDIFICE EXPERTS INC.
4500 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

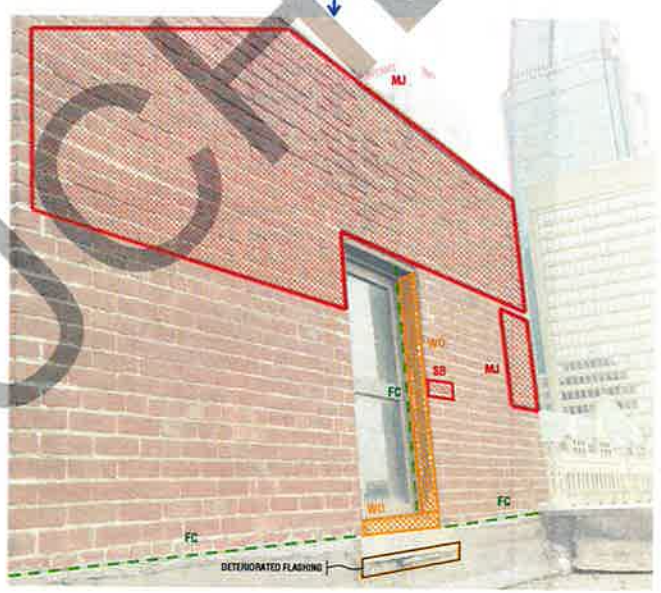
CLIENT: CADILLAC FAIRVIEW

PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

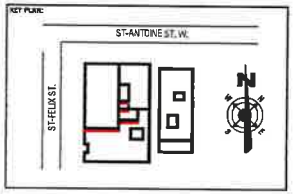
TITLE: 1180 - SOUTH ELEVATION
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-14
CHECKED BY: D.J.ABRAHAM	





KEY PLAN:



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK

SB — SPALLED BRICK
MJ — DETERIORATED OR CRACKED MORTAR JOINT
CB — CRACKED BRICK
BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE

FS — FLAKING OF STONE SURFACE
DS — DETERIORATED STONE (SPALLED/DELAMINATED)
MS — DETERIORATED OR CRACKED MORTAR JOINT
CS — CRACKED STONE
BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE

DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
CC — CRACKED CONCRETE
DP — DETERIORATED PARGING

WINDOWS

FC — FAILED CAULKING/MASTIC
CL — CORRODED STEEL LINTEL
SL — SAGGING STEEL LINTEL
CW — CRACKED CONCRETE WINDOW SILL
DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
MS — MISSING WINDOW SILL
WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS

OTHER FAILURE / NOTIFICATION (SEE NOTE)
PHOTOGRAPH

EF — EFFLORESCENCE
WO — DETERIORATED WOOD
RS — RUST STAIN
GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

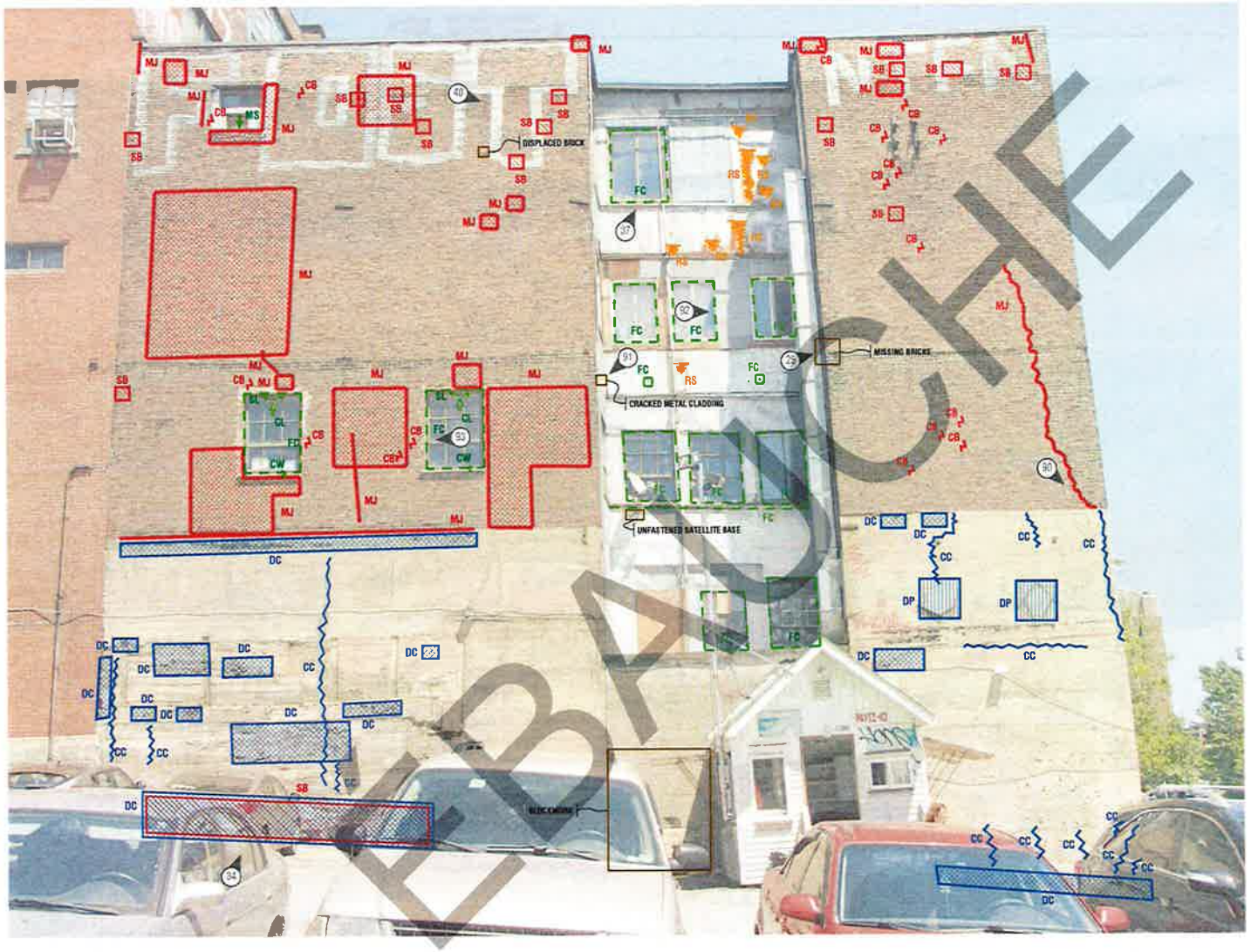
ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

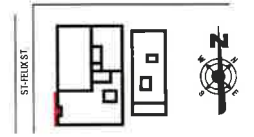
PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1180 - SOUTH ELEVATION
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-15
CHECKED BY: D.J.ABRAHAM	



KEY PLAN:



LEGEND

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK

- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE

- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE

- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS

- FC — FAILED CAULKING/JOINTS
- CL — CORRODED STEEL LINTEL
- SL — SAGGING STEEL LINTEL
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND CONTINUED:

MISCELLANEOUS

- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH

- EF — EFFLORESCENCE
- WO — DETERIORATED WOOD
- RS — RUST STAIN
- GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

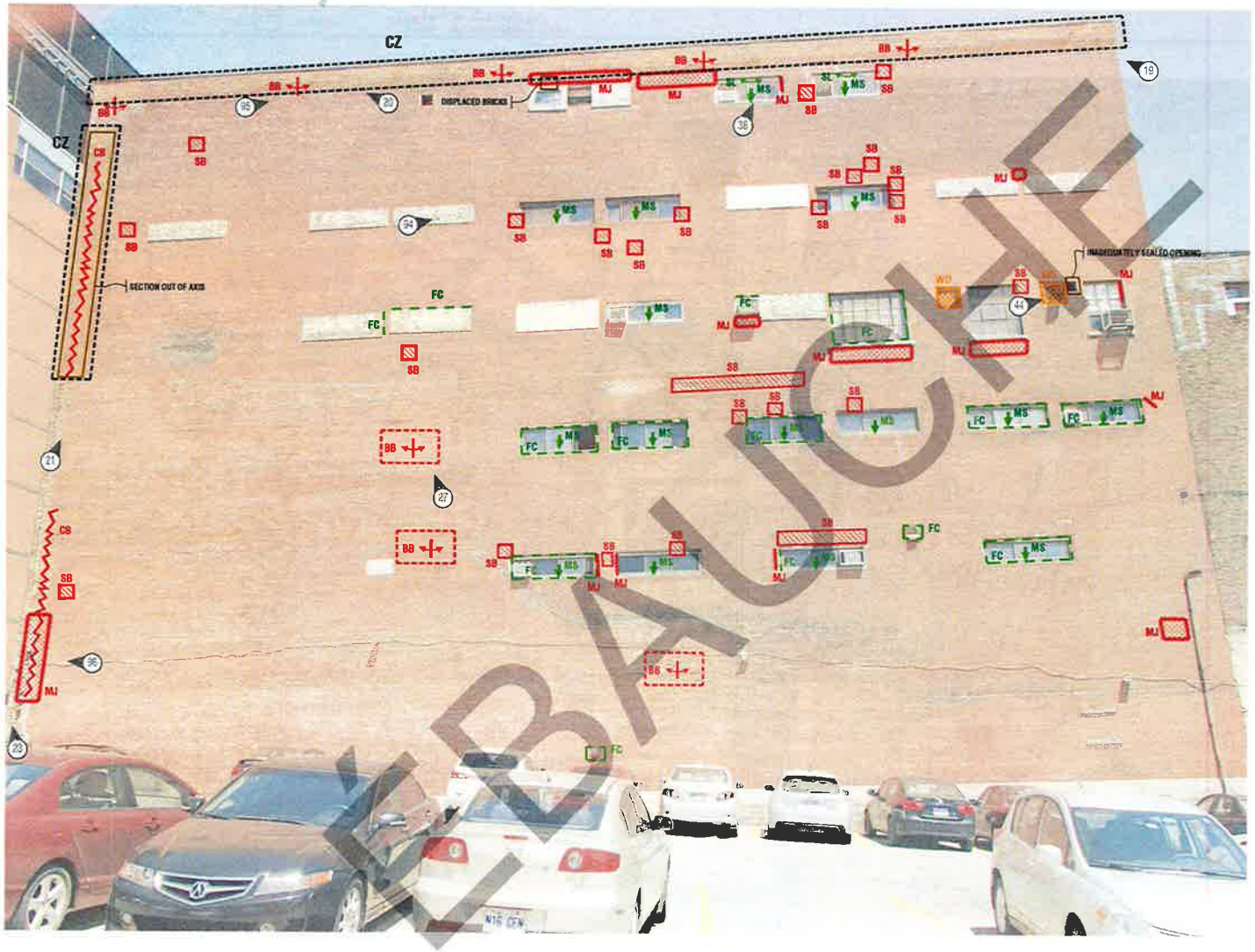
ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

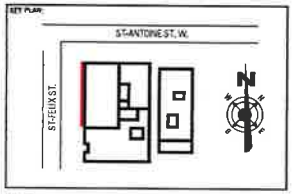
PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1180 - WEST ELEVATION (PARTIAL)
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-16
CHECKED BY: D.J.ABRAHAM	



SET PLAN:



LEGEND:

CZ — ADVANCED DETERIORATION / CRITICAL ZONE

BRICK
- SB — SPALLED BRICK
- MJ — DETERIORATED OR CRACKED MORTAR JOINT
- CB — CRACKED BRICK
- BB — BOWING/DEFLECTION OF BRICK WALL SECTION

STONE
- FS — FLAKING OF STONE SURFACE
- DS — DETERIORATED STONE (SPALLED/DELAMINATED)
- MS — DETERIORATED OR CRACKED MORTAR JOINT
- CS — CRACKED STONE
- BS — BOWING/DEFLECTION OF STONE WALL

CONCRETE
- DC — DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- CC — CRACKED CONCRETE
- DP — DETERIORATED PARGING

WINDOWS
- FC — FAILED CAULKING/SEALANT
- CL — CORRODED STEEL LINTEL
- SL — SAGGING STEEL LINTEL
- CW — CRACKED CONCRETE WINDOW SILL
- DW — DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
- MS — MISSING WINDOW SILL
- WI — DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS
- OTHER FAILURE / NOTIFICATION (SEE NOTE)
- PHOTOGRAPH
- EF — EFFLORESCENCE
- WO — DETERIORATED WOOD
- RS — RUST STAIN
- GS — GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

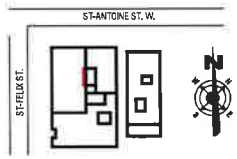
CLIENT: CADILLAC FAIRVIEW

PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1152 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

TITLE: 1180 - WEST ELEVATION (PARTIAL)
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-17
CHECKED BY: D.J.ABRAHAM	

KEY PLAN:



LEGEND:

CZ ADVANCED DETERIORATION / CRITICAL ZONE

BRICK

SB SPALLED BRICK
MJ DETERIORATED OR CRACKED MORTAR JOINT
CB CRACKED BRICK
BB BOWING/DEFLECTION OF BRICK WALL SECTION

STONE

FS FLAKING OF STONE SURFACE
DS DETERIORATED STONE (SPALLED/DELAMINATED)
MS DETERIORATED OR CRACKED MORTAR JOINT
CS CRACKED STONE
BS BOWING/DEFLECTION OF STONE WALL

CONCRETE

DC DETERIORATED CONCRETE (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
CC CRACKED CONCRETE
DP DETERIORATED PARGING

WINDOWS

FC FAILED CAULKING/SEALANT
CL CORRODED STEEL LINTEL
SL SAGGING STEEL LINTEL
CW CRACKED CONCRETE WINDOW SILL
DW DETERIORATED CONCRETE OR STONE WINDOW SILL (SPALLED/DELAMINATED/EXPOSED STEEL REINFORCEMENT)
MS MISSING WINDOW SILL
WI DETERIORATED WINDOW

* SEE LEGEND CONTINUATION BELOW

LEGEND (CONTINUED):

MISCELLANEOUS

OTHER FAILURE / NOTIFICATION (SEE NOTE)
PHOTOGRAPH

EF EFFLORESCENCE
WO DETERIORATED WOOD
RS RUST STAIN

GS GENERALIZED STAINING (POLLUTION AND / OR WATER RUN-OFF)

CONSULTANT:

ÉDIFICE EXPERTS INC.
4600 de la Côte-Vertu Blvd., Montreal (Quebec) H4S 1C7
Tel.: 514-788-2910 / Fax.: 514-333-4674

CLIENT: CADILLAC FAIRVIEW

PROJECT: CONDITION ASSESSMENT OF THE BUILDING FACADES
1162 TO 1190 ST ANTOINE WEST
MONTREAL, (QUEBEC)

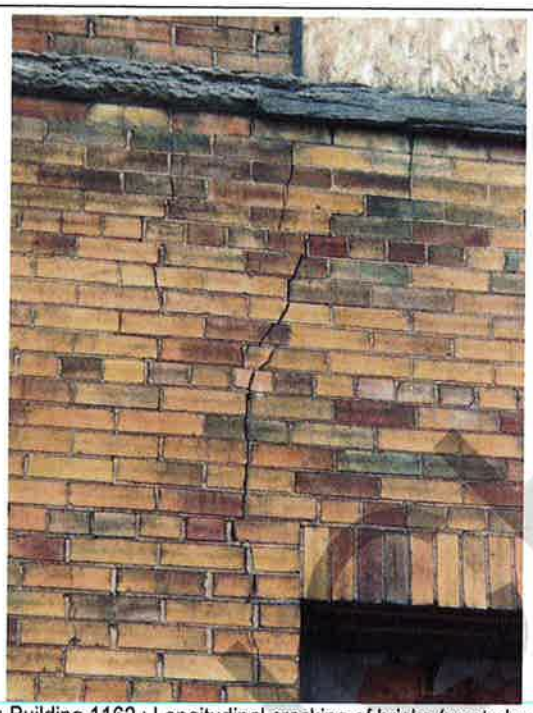
TITLE: 1188 - WEST ELEVATION (PARTIAL) - ROOF LEVEL
LOCATION OF DEFICIENCIES

DATE: JUNE 2013	PROJECT NO.: E020102-A1
PREPARED BY: J.MASSOUD	FILE NO.: E020102a1-dessin1
DRAWN BY: J.MASSOUD	DRAWING NO.: EE-18
CHECKED BY: D.J.ABRAHAM	

EDIFICEXPERTS

Appendix B

- Supplementary Photographs



Photograph No. 47 : Building 1162 : Longitudinal cracking of bricks (west elevation)

Photograph No. 48 : Building 1162 : Longitudinal cracking of bricks (west elevation)

Photograph No. 49 : Building 1162 : Severe spalling of bricks (east elevation)

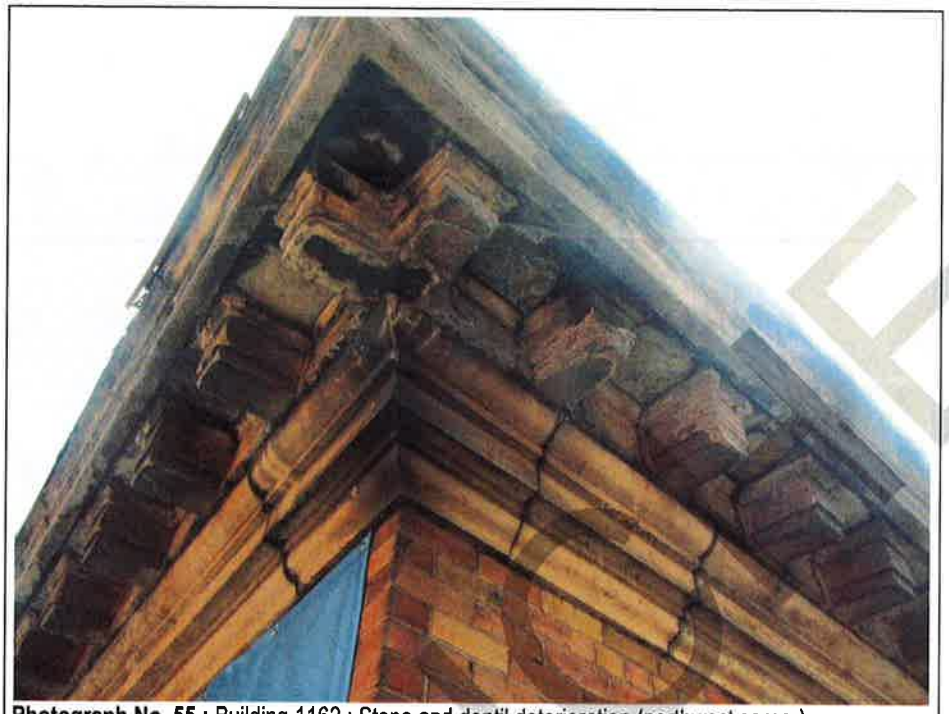
Photograph No. 50 : Building 1162 : Longitudinal cracking at brick offset (east elevation)

Photograph No. 51 : Building 1162 : Deterioration of the retaining wall (parking)

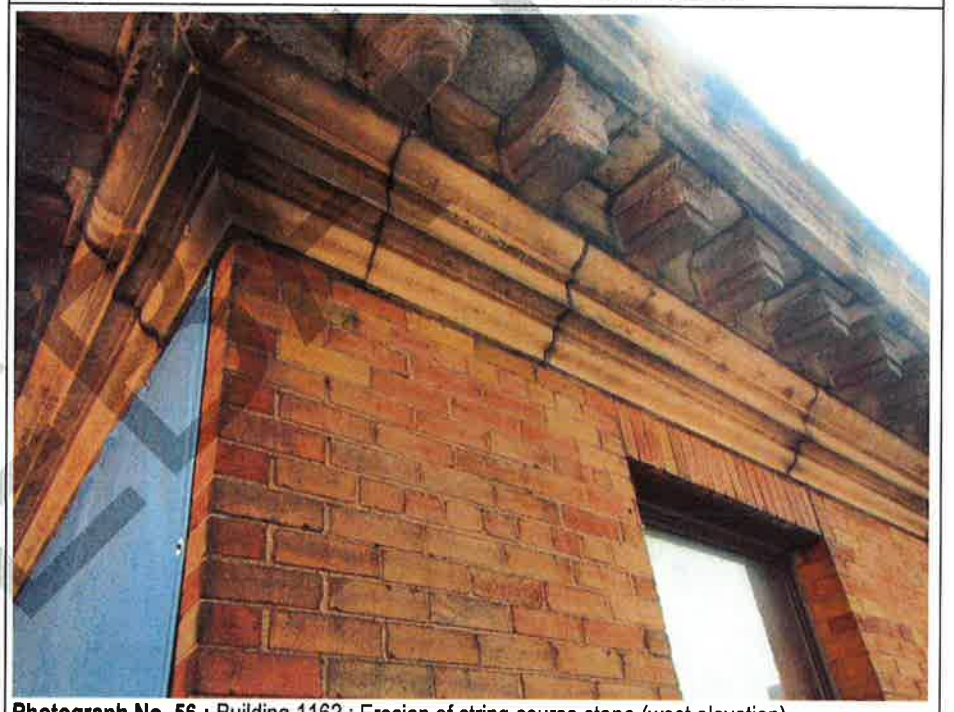
Photograph No. 52 : Building 1162 : Deterioration of the retaining wall (parking)

Photograph No. 53 : Building 1162 : Deterioration of the retaining wall (parking)

Photograph No. 54 : Building 1162 : Missing bricks (roof level)



Photograph No. 55 : Building 1162 : Stone and dentil deterioration (northwest corner)



Photograph No. 56 : Building 1162 : Erosion of string course stone (west elevation)

Photograph No. 57 : Building 1162 : General view of fire damaged balconies and fire escapes (south elevation)

Photograph No. 58 : Building 1162 : General view of fire damaged balconies and fire escapes (south elevation)

Photograph No. 59 : Building 1162 : General view of fire damaged balconies and fire escapes (south elevation)

Photograph No. 60 : Building 1162 : Typical longitudinal cracking of bricks (west elevation)

Photograph No. 61 : Building 1162 : Severe corrosion of steel lintel (west elevation)

Photograph No. 62 : Building 1162 : General view of roof level

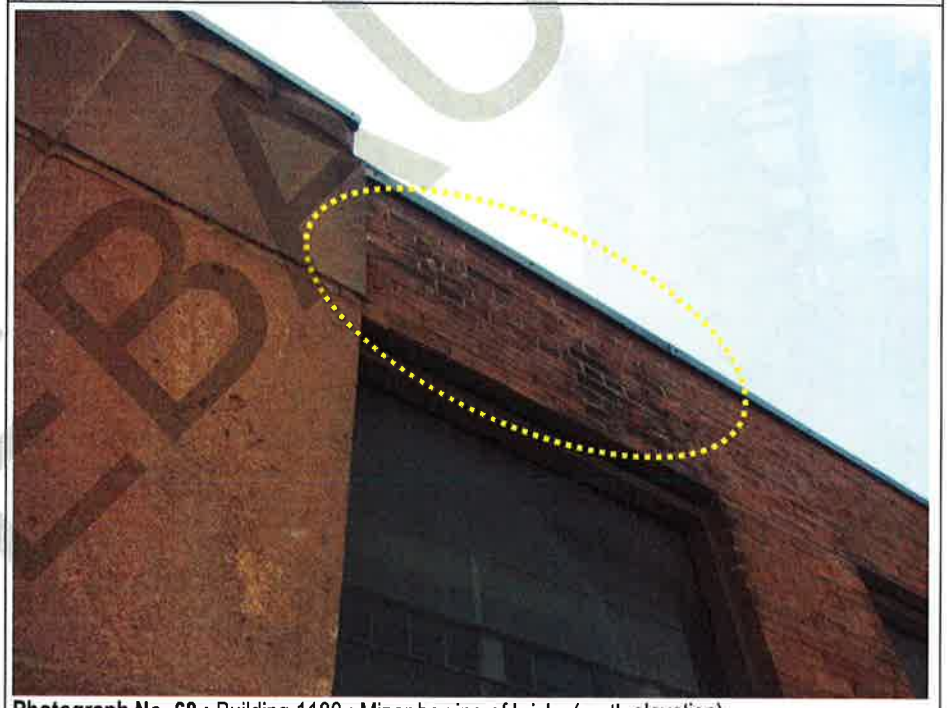
Photograph No. 63 : Building 1162 : General view of roof level

Photograph No. 64 : Building 1162 : Cracked balcony stone support (east elevation)

Photograph No. 65 : Building 1162 : Longitudinal cracking of bricks at corner (east façade)

Photograph No. 66 : Building 1162 : Deteriorated caulking at roof junction, excessive debris accumulation and cracked stone window sill (south elevation)

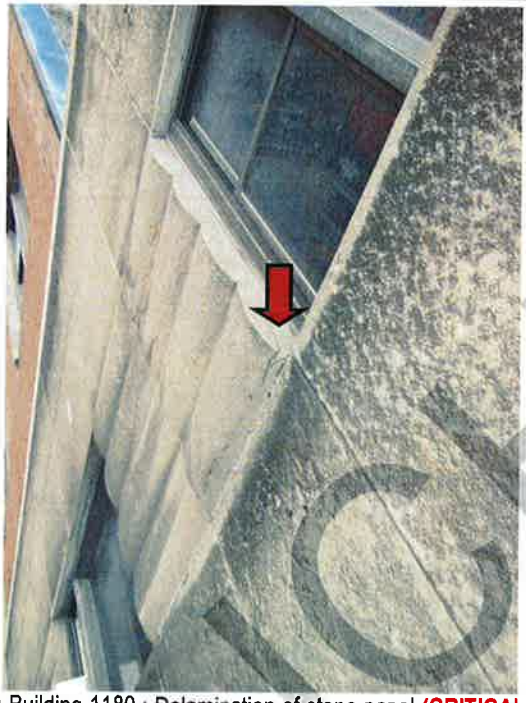
Photograph No. 67 : Building 1162 : Cracked masonry (southwest corner)



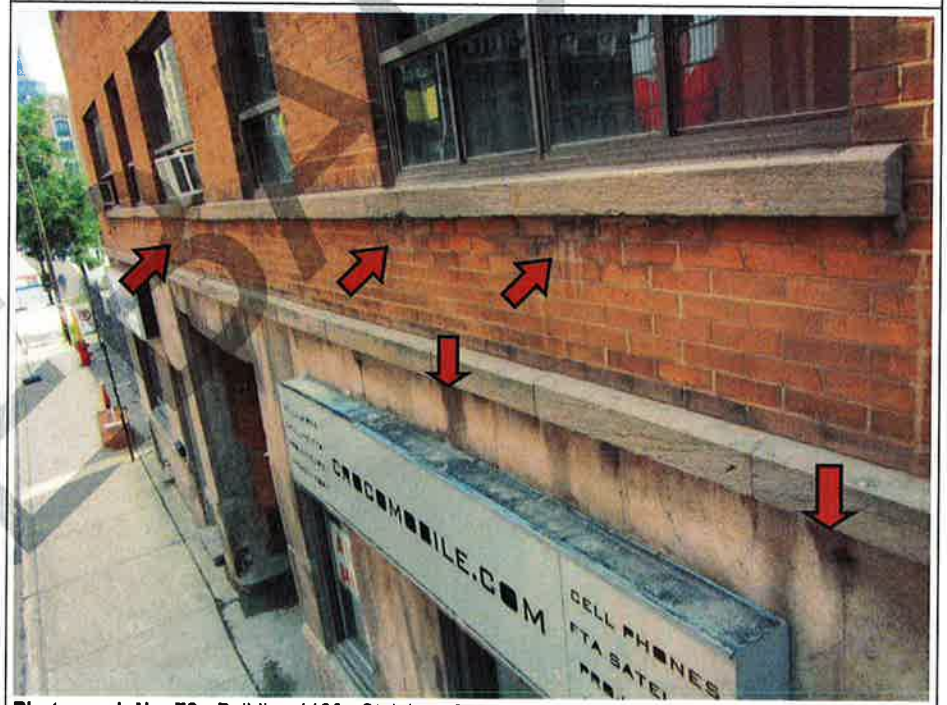
Photograph No. 68 : Building 1180 : Minor bowing of bricks (north elevation)

Photograph No. 69 : Building 1180 : Sagging steel lintel under stone panel (north elevation)

Photograph No. 70 : Building 1180 : Cohesive failure of caulking (north elevation)



Photograph No. 71 : Building 1180 : Delamination of stone panel **(CRITICAL CONDITION)** (north elevation)



Photograph No. 72 : Building 1180 : Staining of stone and bricks (north elevation)

Photograph No. 73 : Building 1180 : Cohesive failure of caulking at metal flashing (north elevation)

Photograph No. 74 : Building 1180: Overhanging room above courtyard (roof level)

Photograph No. 75 : Building 1180: General view of interior courtyard (roof level)

Photograph No. 76 : Building 1180: General view of interior courtyard (roof level)

Photograph No. 77 : Building 1180: Typical patching of exterior walls (note the steel sheeting, asphalt shingles and bricks) (roof level)

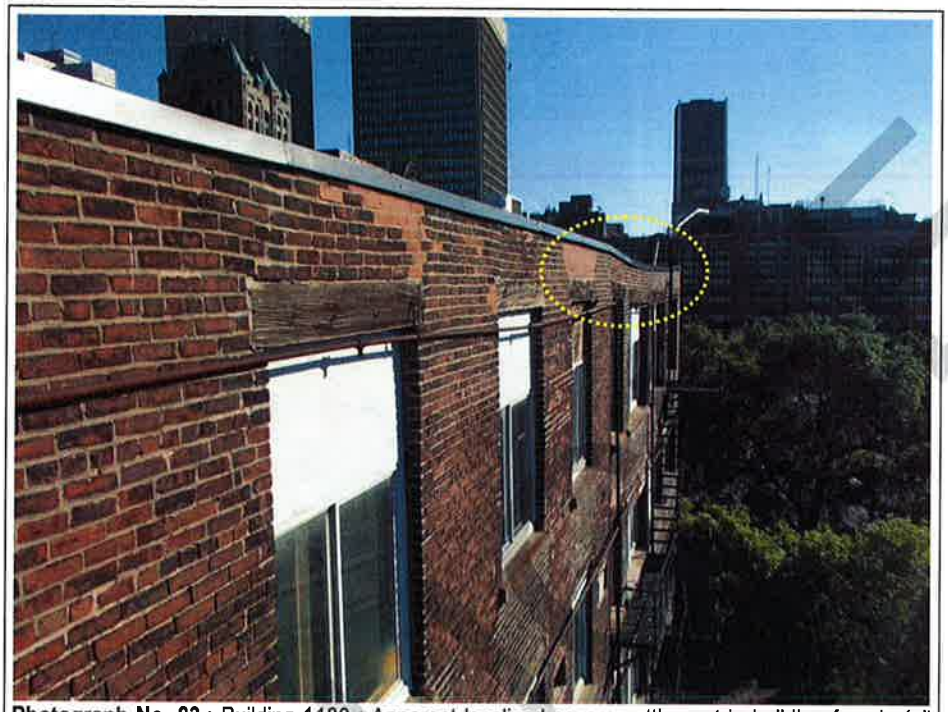
Photograph No. 78 : Building 1180: Typical patching of exterior walls ay penthouse (note the vinyl siding, sheet metal and plywood) (roof level)

Photograph No. 79 : Building 1180: Typical patching of exterior walls ay penthouse (note the vinyl siding, sheet metal and plywood) (roof level)

Photograph No. 80 : Building 1180 : Poor window frame detail and inadequate detailing at masonry wall offset (east elevation – roof level)

Photograph No. 81 : Building 1180 : Typically poorly repointed mortar jointing (north elevation – roof level)

Photograph No. 82 : Building 1180 : Spalled concrete window sill (north elevation – roof level)



Photograph No. 83 : Building 1180 : Apparent localized severe settlement in building facade (all windows, sills and brick pattern beneath dip in parapet are significantly offset) (south facade)

Photograph No. 84 : Building 1180: Damaged window frame (south elevation)

Photograph No. 85 : Building 1180: Typical inadequate waterproofing at opening through wall (south elevation)

Photograph No. 86 : Building 1180: Typical aggregate settlement and honeycombing of concrete wall (south elevation)