

Heritage Conservation Plan

Brampton Memorial Arena Expansion

69 Elliot Street

July 10, 2024

Prepared by:



Prepared for:



BRAMPTON

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Fig. 1.1: Memorial Arena, West Façade at proposed new addition c.2024. Image: +VG Architects

1.1) Executive Summary

This Conservation Plan has been prepared to provide an overview of the proposed conservation treatments for the West Façade of Memorial Arena, 69 Elliott Street, which is being retained as part of the development of the new change room addition on the west side of the building. The new addition is in the design and approvals stages and is currently envisioned for completion in mid 2025. This plan is to be read in conjunction with the other project documentation submitted to the City of Brampton, including The Heritage Impact Assessment report (HIA) and Site Plan Approval application, and other relevant statutory requirements.

The objectives of the conservation treatments in this plan are the protection of the Heritage assets and to ensure the building fabric being retained maintains its longevity and integrity. Other ways in which the cultural and associative Heritage values of the site are being protected and conserved, have been described in more detail in the Heritage Impact Assessment.

The main points of this Conservation Plan are as follows:

- Retention of the façade in-situ, and protection of the heritage elements to be retained during construction of the new addition.
- Retention of the existing openings and brick pilasters including the stucco finish.
- Retention of the existing hipel roof's soffits, fascia and eavestrough where possible.

1.2) Existing Heritage Elements to be Retained

The project does not intend to impact the existing heritage elements except for localized connections to the existing west façade. Refer to Section 4.0 for more detail. Access from the addition to the arena is provided through the existing double-door opening centred on the west façade of the building.

1.3) Rehabilitation Approach

The new addition will be set off the heritage wall by 115mm to abut the pilaster detail of the existing wall. The addition will be constructed on new poured concrete foundations abutting the existing building foundation. The addition will remain effectively 'reversible' and independently supported from the existing arena wall.

1.4) Principles and Scope of this Conservation Plan

This report is prepared in accordance with *The Parks Canada Standards and Guidelines for the Conservation of Historic Places in Canada (2010)*, *The City of Brampton's Heritage Conservation Plan Terms of Reference* and current best industry practice principles for heritage preservation.

1.5) Location Map

69 Elliott Street is located in the City of Brampton (formerly the Chinguacousy Township) in the Regional Municipality of Peel. The property is part of Lot 5 in the First Concession West of Hurontario Street (WHS). In the current Brampton land division, it is part of Ward 3. The area is a part of Brampton Secondary Plan 7, also known as Downtown Brampton.

The property is located adjacent to the Brampton Curling Club to the southwest, as well as Old Fairgrounds Park and Memorial Skate Park to the west. McHugh Public School is on the other side of Elliott Street, north of the property. The arena is next to an expansive residential area in the south-east and south-west. +VG Architects have reviewed the documentation provided by the City of Brampton.

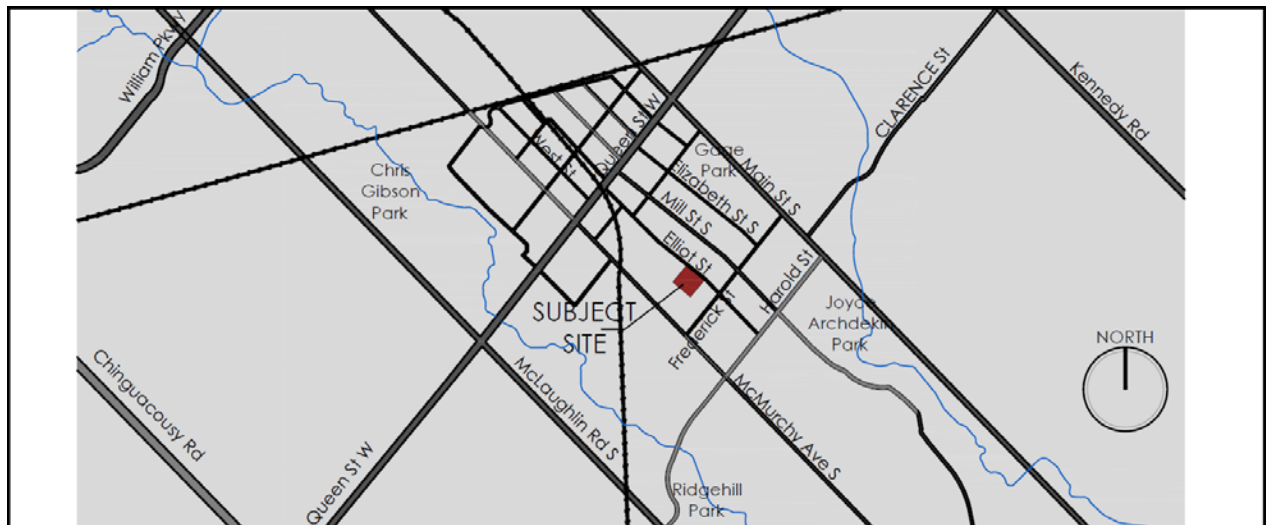


Fig. 1.2: Location Map, Source: +VG Architects

1.6) Site Map

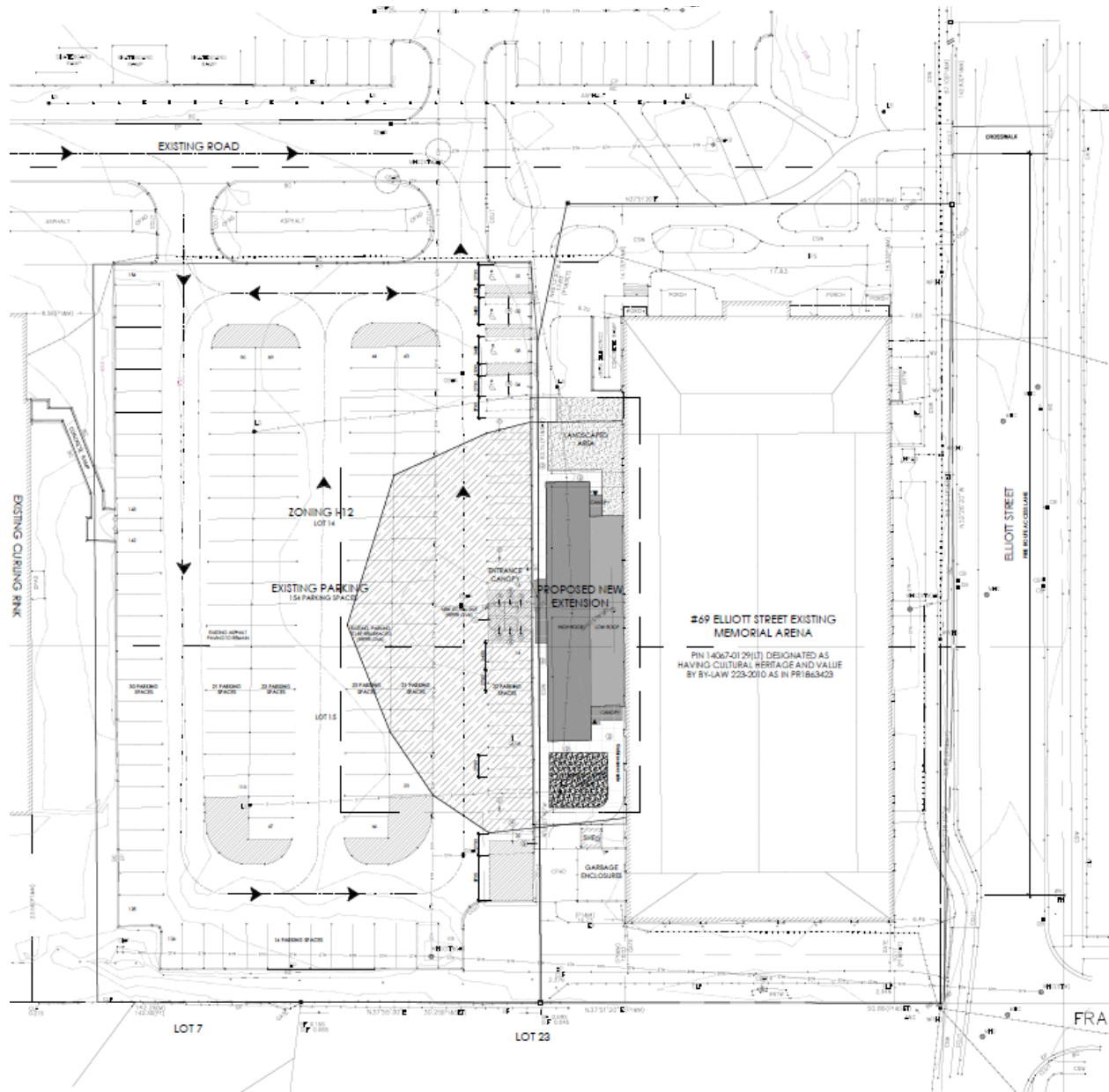


Fig. 1.3: Site Plan, Source: +VG Architects

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2.1) Sources and Methodology

+VG Architects have reviewed the documentation provided by the City of Brampton.

Field surveys have been conducted to understand the construction assemblies, dimensions, conditions and properties of the building fabric immediate to the addition.

2.2) Reference Materials and Sources

Many other sources, terms of reference, standards, guidelines and resources have informed this report, including:

- The Ontario Heritage Tool Kit
- Ontario Ministry of Culture's Eight Guiding Principles in the Conservation of Historic Properties (1997)
- Ontario Ministry of Culture's Heritage Conservation Principles for Land Use Planning (2007)
- Well Preserved: the Ontario Heritage Foundation's Manual of Principles and Practice for Architectural Conservation (1988)
- Heritage Report, Statement of Reasons for Heritage Designation, Brampton Memorial Arena, March 15, 2007
- Heritage Impact Assessment and Heritage Conservation Plan, February 2022, ATA Architects Inc.
- Geotechnical Investigation for Memorial Arena, September 13, 2022, SNC-Lavalin



Fig. 2.1: View of arena playing surface with clear span Hipel Roof Truss. Image: +VG Architects

3.1) Existing Building Description

Brampton Memorial Arena was constructed in 1949-1950. It was built to honour those who lost their lives in the Second World War. It was also the first artificial ice rink (i.e. mechanically refrigerated) constructed in the City of Brampton. Premier T.L. Kennedy officiated at the sod turning ceremony in April 1949. The arena was opened to the public on January 14, 1950, at a gala event.

The facility is home to both hockey and box lacrosse and has historic associations with both sports dating back to 1960's. The building is directly associated with recreational pursuits. Several concerts, fall fairs, figure

skating meets, rallies and other events have been staged in this arena.

The Memorial Arena was designed by Norman Otto Hipel (1890-1953) of Preston, Ontario. Hipel was granted roofing design patents for buildings that needed a large, unobstructed floor area. Hipel designs were ideal for skating rinks, barns and arenas. The intact roof of the Memorial Arena is an excellent example of Norman Hipel's work.

Hipel's roof design was selected for the Memorial Arena because it was determined that high, expansive roofs were essential for playing lacrosse. These roof

¹ Heritage Report, Statement of Reasons for Heritage Designation, Brampton Memorial Arena, March 15, 2007

systems also reduced indoor fog that is sometimes a problem with artificial ice rinks.¹

3.2) Heritage Status

Brampton Memorial Arena is designated under Part IV of the Ontario Heritage Act as being of cultural heritage value. Designation was passed in 2010 under Brampton By-Law 223-2010.

¹ *Heritage Report, Statement of Reasons for Heritage Designation, Brampton Memorial Arena, March 15, 2007*

4.1) Proposed Development

Currently the Brampton Novice Lions Hockey and the Brampton Excelsior Lacrosse team play out of this arena. A 1 storey, 3,000 sq. ft. addition is proposed to sufficiently accommodate the Lacrosse teams requirements and will bring the arena more in line with current modern City of Brampton arenas.

As described in the Heritage Impact Assessment, the new spaces to be included in the addition are as follows:

- 2 change rooms/locker rooms
- 2 coach offices
- 1 equipment room
- 1 trainer room
- 1 boardroom/meeting room
- 2 storage rooms
- Circulation space

The proposed addition has a long rectangular form, with a lower elevation (one-story) than the arena building. It is located on the west side of the building facing the existing public parking area.

The proposed development does not entail any intervention within the interiors of the heritage arena with the exception of new electrical and plumbing lines back to the existing basement service rooms.

4.2) Existing Heritage Elements to be Retained

The project does not intend to impact the existing heritage elements except for localized connections to the existing west façade. Access from the addition to the arena is provided through the existing double-door opening centred on the west façade of the building.

The height of the addition has been established to align with the soffit of the heritage roof and the new flat roof of the addition will meet the heritage roof as per figure 4.1.

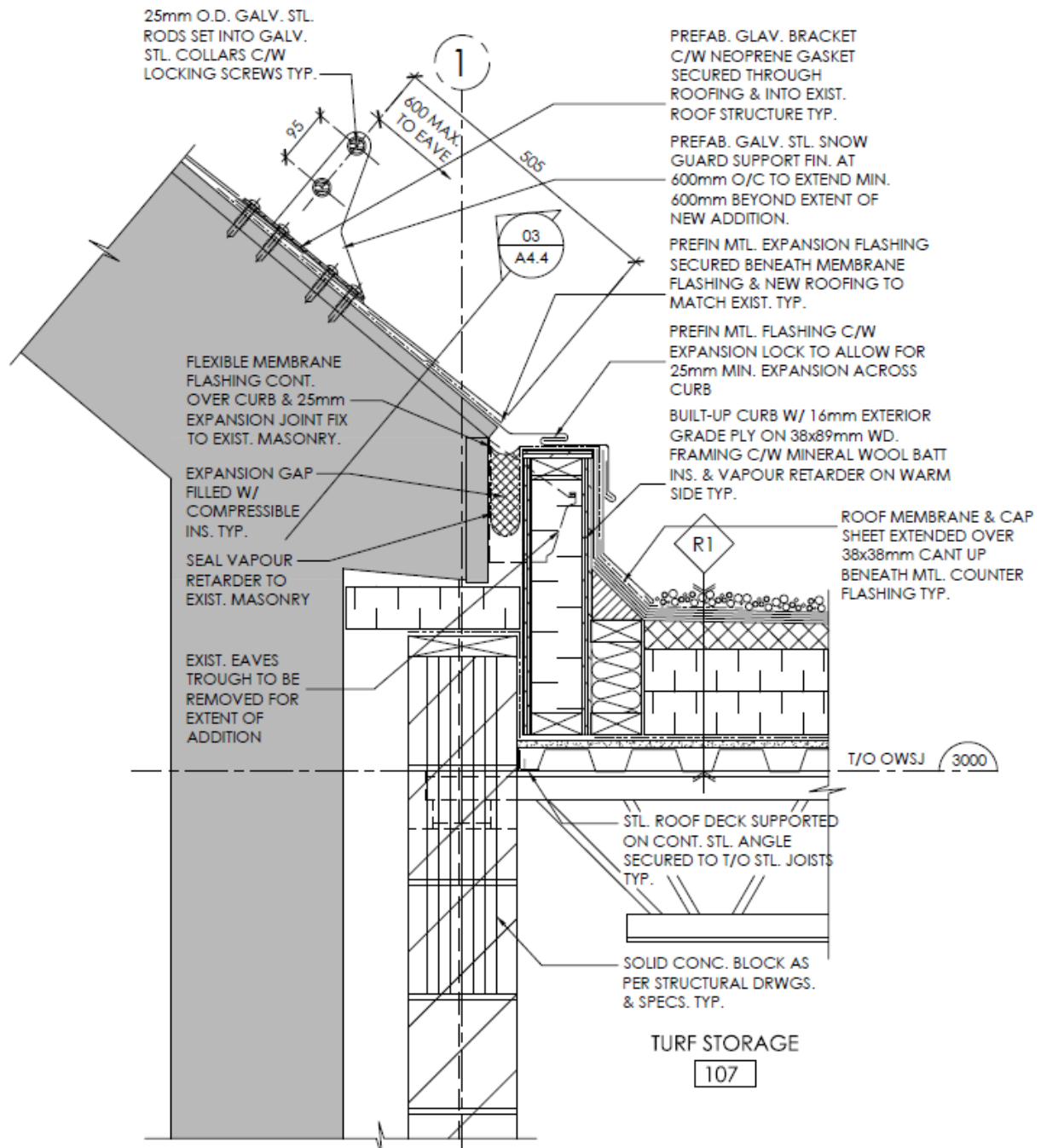


Fig. 4.1: Detail Section at new flat roof and heritage sloped roof fascia. Source: +VG Architects

To ensure continuity of the waterproof membrane, approximately six rows (900mm) of existing asphalt shingles of the heritage roof will be removed to expose the roof decking. A new waterproof

membrane will be installed with a prefinished metal flashing that will lap onto the new roof curb. The metal flashing will be mechanically fastened to the existing roof deck. Flexible flashing membrane will be



Fig. 4.2: Existing 36" x 36" Intake Louvre to be relocated to next bay left. Source: +VG Architects

installed between the existing roof fascia and the new roof curb to accommodate differential movement between the new addition and the existing arena. A new snow fence will be installed on the existing roof along the length of the new addition to break-up ice/snow and mitigate potential damage to the new addition roof membrane.

Replacement asphalt shingles will be selected to match the existing. These shingles are readily available.

The existing eavestrough and three existing rainwater leaders where the new addition abuts the existing arena roof will be removed and the rainwater leaders will be capped below grade.

One existing 36" x 36" intake air louvre will be relocated north into an existing infilled horizontal window opening north of the new addition. Refer to Fig. 4.2 above.

One existing 24" x 24" intake air louvre will be relocated south into an existing infilled horizontal window opening south of the new addition.

4.3) Excavation for New Foundations

Given that the existing arena ice pad is substantially below grade and the new addition is a slab-on-grade structure, there is no risk of undermining the existing arena foundations. Excavation will be carried out to

undisturbed soil but will ensure a minimum frost cover for the new foundations of 1200mm below grade. The new footings and foundation wall will be poured against the existing foundation wall of the arena with a minimum of 50mm of rigid insulation between the new concrete and existing assumed masonry foundation wall.

4.4) New Wall adjacent to Existing Heritage Wall

The new addition will be set off the heritage wall by 115mm to abut the pilaster detail of the existing wall. A compressible filler material will be applied to the existing pilasters. The addition will remain effectively 'reversible' and independently supported from the existing arena wall.

5.1) Exterior Wall – West Elevation

The attributes that will be affected by the addition are:

- Exterior side wall buttresses
- The barn-like profile of the vaulted roof

Secondary attributes that are affected by the addition include:

- Infilled horizontal window openings in painted arena wall and their sills
- Roof edge
- Brick pilasters

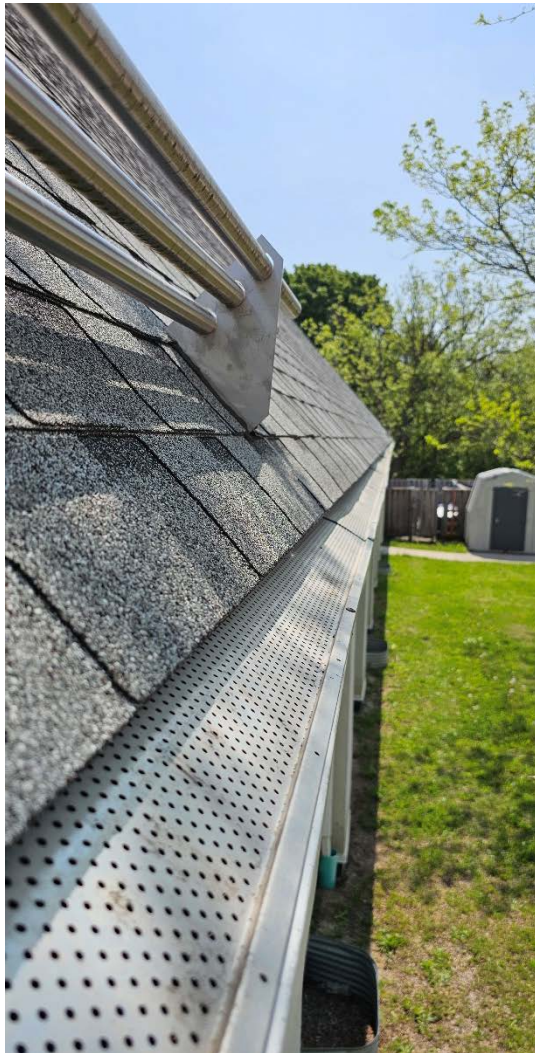


Fig. 5.1: View of asphalt shingle roof, eavestrough with leaf guards. Image: +VG Architects

5.2) Rehabilitation Approach

The new addition will be set off the heritage wall by 115mm to abut the pilaster detail of the existing wall. The addition will be constructed on new poured concrete foundations abutting the existing building foundation. The addition will remain effectively 'reversible' and independently supported from the existing arena wall.

The existing eavestrough and two existing rainwater leaders where the new addition abuts the existing arena roof will be removed and the rainwater leaders will be capped below grade.

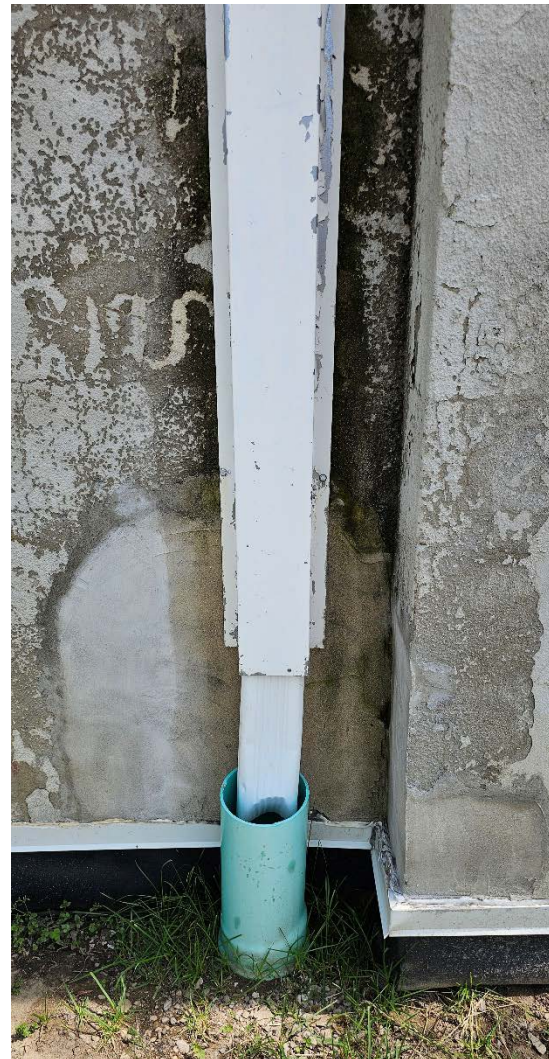


Fig. 5.2: Water damage noted at rainwater leader on painted plaster walling. Image: +VG Architects



Fig. 5.3: View of infilled horizontal windows and metal sills. Image: +VG Architects

This will facilitate the waterproof detail described in Section 4.0. The eavestrough is readily replaceable should the addition be removed in the future and restoration of the west facade is required.

Storm lines within the footprint of the addition will be re-routed around the addition as described in Figure 5.4.

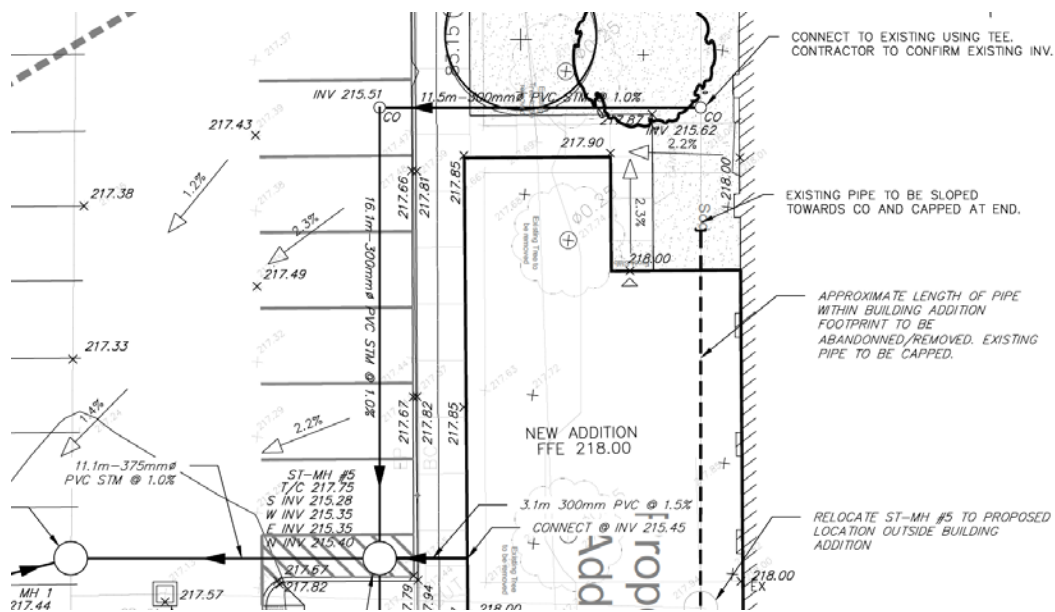


Fig. 5.4: Partial site servicing plan showing storm line removal/re-routing. Source: MGM

6.1) Post Construction Maintenance

The following is the recommended schedule for inspections related to the maintenance of the building envelope and interior finishes:

1. Annual inspections from the ground and via portable scissor or boom arm lift equipment are recommended for all building facades to examine the conditions of items heritage elements to ensure:
 - that the integrity of the building envelope is maintained,
 - that loose and/or deteriorated elements are stabilized and/or removed and replaced,
 - that finishes such as paint are maintained in good condition.

The annual inspection work outlined above can be performed by in-house property maintenance staff. Minor repairs can also be performed by maintenance staff.

2. Interior finishes of stone, plaster, paint and brass should be reviewed on a quarterly basis by in-house maintenance staff.
3. On a quinquennial (5 yearly) basis it is recommended that a more detailed review of the building be conducted and complete an updated condition assessment of the building and exterior envelope to evaluate the performance of the masonry, sealants, windows and doors, flashings, roofing, and adjacent grade conditions.
4. Every 10-15 Years: Review and replacement of caulking, inspection of window and door hardware, as required.
5. Every 25-30 Years: Review and replacement of asphalt shingles, membrane, and flashings, mechanical and electrical systems, as required.

Care should be taken to limit contact of sidewalk salt with all building finishes, and it is recommended that policies be established that will limit the amount of

salt that is used for de-icing pedestrian routes adjacent to the building.

INTERIM CONSTRUCTION PROTECTION PLAN

7.1) Demolition Activities and Temporary Protective Measures During Construction

During demolition activities on the parts of the buildings being removed, there is risk of damage to the portions being retained. As such, there are several specification sections dedicated to procedures, precautions and best practice to ensure that no damage is caused to the Heritage fabric during this aspect of the work. These include selective removal, or removal and salvage of artefacts, existing masonry and fabric. With some exceptions, only hand and systematic demolition methods are acceptable, with certain potentially destructive demolition methods such as rapid progressive failure and mechanical wrecking ball type methods are not permitted. High impact demolition equipment such as jackhammers are not permitted within 10M of character defining elements. An inventory of all significant features, identification of high priority heritage artifacts or items to be retained will be identified in the project drawings, and Heritage materials and character defining elements are to be identified and protected.

During construction, Heritage protection measures such as temporary storage, dust and moisture control, and shoring are specified as minimum requirements. In addition, the specifications outline procedures if undocumented or concealed materials which are potentially heritage in nature are discovered during the work.

7.2) Connections with New Construction

Connections between the new structure and the existing west façade have been carefully considered. The interface between new materials and the often imperfect existing heritage building fabric can be challenging. Successful design, detailing and execution is critical to the future integrity of the building envelope and to avoid causing new or unintended 'downstream' consequences that could lead to deterioration of the Heritage materials.

Many factors must be accounted for in the design of these connections, such as compatibility of materials, thermal expansion and contraction, differential vertical movement between old and new construction

during settlement, as well as serviceability, access for maintenance and upkeep, and expected product life cycles and durability.

Compressible materials, control joints, tolerances, reveals and expansion sleeves and slip joints are just some of the construction science details incorporated to ensure successful and durable connections. Flashings, Reveals, Soft Joints, frost lock detailing of sheet metal flashings will ensure the diverting of water runoff away from the heritage façade, and generally ensuring that the historic fabric is correctly sealed and protected from moisture ingress.

7.3) Dust Protection during Construction

While the addition is essentially independent from the heritage interiors of the arena, soft hoarding will be installed to prevent the spread of dust and debris to the arena interiors when required.

7.4) Landscaping

The grading of surface treatments and landscaping is being designed to slope away from existing foundation walls to ensure a positive drainage action and avoid saturation of the foundation wall.

Tree Protection is prescribed for trees within the construction area that are not intended to be removed.

8.1) Site Fencing

The construction work area will be defined with temporary chain link fencing to ensure the public do not enter the work area.

8.2) Construction Signage

Signage will be posted outlining safety requirements including Personal Protective Equipment (PPE). Directional signage will be provided as required to direct the public and building users to the main entrance on the north side of the building.

8.3) Site Security

The building shall always remain secure from intrusion. The arena's surveillance system shall always have the surveillance system operational. In such cases where the surveillance system must be shut down by the Contractor to effect repairs or other alterations of any description the Contractor shall protect the premises outside the building's normal hours of operation.

8.4) Inspection Monitoring During Excavation

During excavation activities for the new addition's foundation, an independent inspection company will be retained to review the work and ensure the existing heritage foundation is not undermined and that compaction during backfilling is monitored.

9.1) Conclusion

The proposed conservation treatments described in this Plan support the preservation of the Heritage Elements at 69 Elliot Street. Currently the details and procedures are being refined and presented in the form of Drawings and Documentation in support of the Municipal Approvals, and in advance of the Construction Procurement Phase.

Conservation work is unpredictable in its nature and the details of the plan are subject to change as the project advances, however, the overall scope and intent remains – Preserving and maintaining the most important and unique cultural and physical Heritage of the development site and incorporating them as an integral part of the new addition to Brampton Memorial Arena.

9.2) Existing Heritage Elements to be Retained

The project does not intend to impact the existing heritage elements except for localized connections to the existing west façade. Refer to Section 4.0 for more detail. Access from the addition to the arena is provided through the existing double-door opening centred on the west façade of the building.

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