



Raisin River Heritage Centre Architectural Analysis & Updated Report

Project Number:
209-00187-00

DATE
December 7, 2020

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INTRODUCTION

Architecture 49 Inc. (A49) were commissioned by the Township of South Stormont to conduct an inspection and prepare an architectural condition assessment of the Raisin River Heritage Centre (RRHC) based on a previous report 2017 from WSP:

The purpose of the visit on July 6, 2017 was to review the condition of the building with specific attention to any areas that need repair or upgrading. A brief report was requested to outline the findings with recommendations.

This Architectural Analysis & Updated Report by A49 will focus on the review and analysis of the existing Heritage Centre facility conducted in four parts as per our quoted scope of work as follows:

1. **A49 to review, validate and update the previously submitted document dated July 20, 2017;**
2. **A49 to conduct an exterior survey to identify building dimensions for costing purposes;**
3. **A49 to review and update Budget Costing dated October 4, 2017 by WSP to 2020 dollars;**
4. **A49 to provide Class D estimate for conversion of existing building to archive level facility.**

The RRHC building was constructed in 1906 and utilized as a convent until the 1970's. In 1978 it was designated under the Ontario Heritage Act as a Heritage Building:

Township Bylaw #3418

...that the lands occupied by the St. Andrews West convent and more particularly described in Schedule "A" attached hereto are hereby designated under the Cornwall provisions of the Heritage Act of Ontario, 1974, Chapter 122, ' as property of historical value. The reason for this designation is that the history of the area of St. Andrews West is of considerable significance in the early social, education, religious and cultural fabric of the area of the convent which has been the source of education for numerous students of the area as the western acre of the tri—part of historical buildings and the cemetery. Its association with the historic St. Andrews West Church, of which the second church is still in existence, and the former hotel which is now known as Quinn Store, and the cemetery nearby which contains the graves of Simon Fraser and J. Sandfield Macdonald . The premises of the buildings is structurally sound and could serve the community as a museum or some similar public foundation. The convent premises have a singular historical value and interest which should be protected not only for the community, but also for the people of Ontario.

Until recent years the property was partially occupied by the Cornwall Township Historical Society where turn of the century artifacts and exhibits are displayed. Formerly, the building was also occupied by the S.D. & G County Library.

The Ontario Building Code (OBC defines the building use as a Library or as a Heritage Centre as an Assembly 2 (A2) classification.

RRHC is located on the north side of County Road 18 in the village of St. Andrews West, directly east of existing St. Andrews Catholic (elementary) School, where it is positioned within the property

of the school (Catholic District School Board of Eastern Ontario - CDSBEO), refer to survey drawing, which creates a very constricted property footprint – essentially without any lands outside the building footprint and a 20' wide property easement from the main entrance to the King's Highway (HWY #18). There exist no designated parking spaces or emergency vehicular access. Parking and road access are only available to be shared with the school - which during active school or busing – parking and roadway would be virtually inaccessible. Access is all predicated on easement through the school property.

The original 3 storey building, originally constructed as a convent, is a typical, well-constructed wood framed house with tin ceilings, wood single hung windows, steel roofing, a full-height partially finished basement, wood framed with brick veneer and stone foundation. The ground floor elevation and main entrance is approximately 5'-0" above finished grade at the south entrance. There is a single storey addition at the north side, west corner and a single storey entrance vestibule at the north side, east corner. Circulation through all floors is via a central wooden stair.

Currently the building is fenced off, as a health & safety precaution due to poor condition of building masonry and other features. The CDSBEO has also requested that the building be protected so that its students whose playfield is all around the building, are not harmed.

PART ONE Review & validate the previously submitted report from WSP

Architecture49 Inc. (A49) can only speak to the condition of the building's components and assemblies with reference to the existing recently measured floor plan drawings, along with cursory/visual site investigations taken site on September 25, 2020.

Note: no destructive exploratory openings were made. Nor were detailed roofing inspections made or review of 3rd floor – where extensive bird and bat guano droppings existed (dangerous health issue without special PPE).

From WSP's 2017 report:

There are several general concerns with the building that should be considered:

- *Barrier free accessibility both into the building ground floor and to washrooms could be required to satisfy requirements for employees or the public should the building be renovated.*
- *Any upgrades and/or renovations should be sensitive to the heritage aspects of the building.*
- *The building perimeter is within a school yard. Therefore, the protection of the building fabric and the children should be addressed when proceeding with the recommendations.*
- *General building exiting, fire protection, and emergency lighting should be addressed when entertaining any current or future occupancies.*
- *Any renovations or alterations shall consider the present of designated substances as indicated in the designated substances report prepared by WSP Canada Inc. dated April 7, 2016.*

Four key issues yet undiscussed by the WSP Report, regarding the potential upgrade to the Raisin River Heritage Centre include:

1. The building is designated as a **Provincially Registered Heritage Building** by the municipality of the Township of South Stormont – this can offer potential opportunity for Provincial funding, but also limits the options for construction plans and potential demolition;
2. Any improvements to the RRHC facility, implicate application for building permit. Even if application is through OBC Part 11 – Retrofit, it is likely that the work categorization will be considered 'major', and thus **requiring to achieve fundamentals of fire safety for an A2 building, as well as, consideration of Heritage Restoration issues.**
3. Alternatively, if OBC A2 classification is too severe (expensive), potentially the Municipality's CBO will consider allowing the building to be categorized simply as **OBC Group 'D' - Office**, with its anticipated limited visitor occupancy and thus reducing fire Safety features. However, these measures are still onerous and expensive construction upgrades and still require Heritage Restoration.
4. Existing building to be updated to become an '**archive level facility**' – standards for archives certainly would include Accessibility, OBC code Conformance/Fire Safety amongst other features but also high standards in HVAC including humidity and temperature controls. This would encompass a very extensive retrofit of the facility, which would likely be prohibitive to accomplish based on several issues, especially combustible construction;
5. Building is connected to municipal water system but sanitary is still serviced by septic tile bed. It is uncertain if this system is stand alone or potentially connected to the adjacent school's tile

bed? In either case, upgrading the system if required, due to restricted property, could be a difficult issue to resolve.

A49 have reviewed and validated the Building Condition Report from WSP dated July 20, 2017 and provide **additional commentary** below based on the report's comments of repair, cleaning and stabilization general of existing building construction details as recorded by WSP.

A49 commentary is as follows:

1. **Road Access:** There is no distinct, dedicated roadway since vehicular access to the building requires access is through CDSBEO property. This condition hampers and diminishes public access to the building and poses a safety and liability risk by impeding access for emergency vehicles – required by OBC and Ontario Fire Code;
2. **Accessibility for Ontarians with Disabilities Act (AODA):** The building is not accessible to persons with physical disabilities such a person in wheelchairs, with walkers or canes, and the visually impaired, due to its raised main floor ($\pm 5'$). This would most effectively be remedied by a disabled lift (either at main entrance or integrated with potential new stair as a new entrance to the facility). It is uncertain which levels an elevator would need to access – but assume ground and second floors where archive events are currently located;
3. **Survey & Building Situation:** The property is situated within the adjacent school property leaving very little space for exterior improvements and additions. The site is further complicated by the fact that it sits within the flood plain of the Raisin River Watershed where new construction is not permitted;
4. **Main Floor:** the main floor is spacious with high ceilings and could be well suited for clerical / administrative / archival uses, there is a religious component where an altar is built-in, essentially dedicating the ground floor as a chapel. The altar most likely has historical and heritage significance and need to remain in place;
5. **Fire Separations and Life Safety:**
3.2.2.24 of the OBC requires that this **A2 building of 3 storeys** be of non-combustible construction and be sprinklered (assuming dispensation for combustibile construction and floor fire ratings. Sprinklers would likely be hung below heritage ceilings). Fire separations between floors require a 1-hour separation. Assumed low occupancy levels will eliminate need for a fire alarm system (dispensation from Fire Marshall required due to 3 stories & basement). Travel distance must be less than 30 m ($\sim 98'-5"$) from the most remote point to the exit door. Since the central circulation stairway is not fire separated and thus, through this stair, all floors are interconnected, this needs to be remedied – most likely by the addition of a new fire rated stair along with exit signage and emergency lighting.
3.2.2.53 or 3.2.2.54 of the OBC requires that this **Group 'D' building of 3 storeys** can be combustibile construction however fire separations at floors are required to be $\frac{3}{4}$ hr., thus sprinklers may also be employed as a safety measure.
The central circulation stairway does not provide a fire separated egress and its lack of separation at the floors creates a situation where all floors are interconnected. A new fire stair is required, and floors must be fire separated at each level. Related to issues of fire separations is safety compliance regarding building egress, door hardware, emergency lighting and exit signage;
6. **Mechanical:** Two gas fired forced air furnaces (2013) located in the basement, exposed metal ductwork within the basement, ground, and second floors Duct work and other penetrations or holes through floor fire separations would be required to have fire blocking and fire dampers installed to complete the fire separations.

Upgrades to plumbing would include at least one, unisex Universal washroom.

Other mechanical upgrades may be necessary with potential building retrofit – especially if intent is to achieve ‘archive standards’;

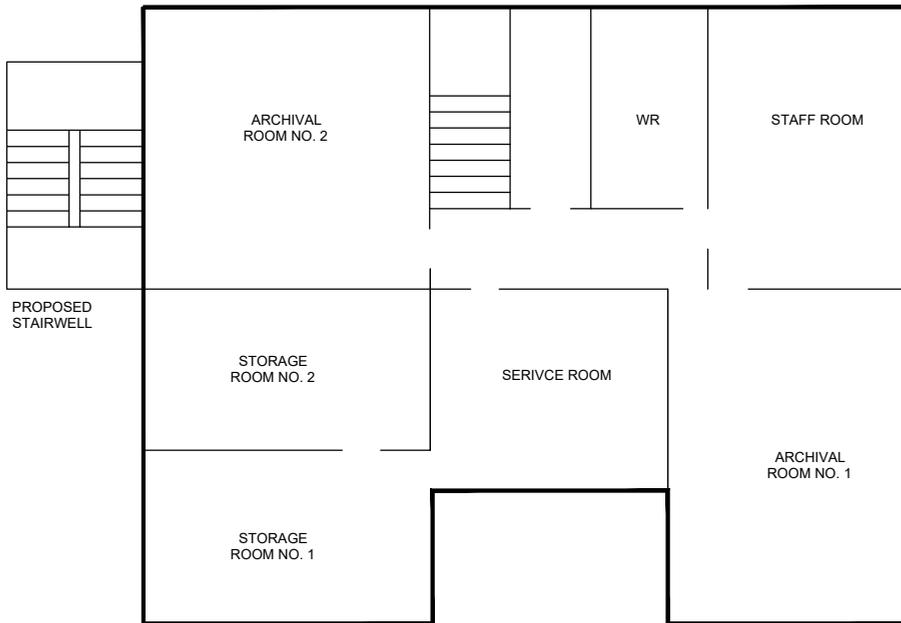
7. **Electrical:** extensive electrical distribution/lighting/controls upgrades as per WSP report would be necessary with potential building retrofit – especially if intent is to achieve ‘archive standards’;
8. **Hazardous Substances:** remediate as per WSP report – April 2016 and upgrade/replace impacted surfaces (asbestos, plaster, flooring, lighting, etc.);
9. **Interior Finishes:** requiring extensive repairs with potential building retrofit;
10. **Fire Stair/Elevating Device:** assume both likely if upgrading RRHC with potential building retrofit. Could be integrated as single addition or possibly separated – design yet to be determined;
11. **Fire Separations at floors/Sprinklers:** Either A2 or D building classifications require fire ratings at each building floor, other than basement level, this may be difficult to achieve. Potentially sprinklering building would achieve dispensation from CBO/fire department/marshal. Sprinklers would also require new sprinkler room and new water service (assuming municipal water pressure is adequate);
12. **Two single storey additions:** on the north sides of the building do not provide much value except to provide vestibule type of space when exiting from the stairwell and addition to basement work area - likely repairs would be necessary with potential building retrofit;
13. **Basement:** extensive repairs would be necessary with potential building retrofit – fire separation at ceiling and mechanical equipment. Potentially new sprinkler room there be a need to use the basement for any purpose such administration office or tenant storage, the basement would require a major renovation due to its age and finishes which have exceed their life expectancy. Refer also to Part 5 below for recommendation.
14. **Building Exterior:**
 - a. **Masonry:** the stone masonry foundation walls appear to be in fair condition – assume some repair work. The brick exterior requires repairs in several locations which will involve the replacement of broken bricks and repointing, including the chimney; Note that the deterioration of the exterior brick masonry has progressed further particularly visible on the south side of the building at the main entrance, since the 2017 report.
 - b. **Windows:** windows are wood, they appear in fair condition and require recalling/painting. if intent is to achieve ‘archive standards’, likely full replacement would be required to upgrade R value to coincide with HVAC upgrades;
 - c. **Doors:** doors are wood, they appear in fair condition and require restraining also exit hardware would require upgrades to code standards;
 - d. **Roof:** the roof appears to have penetrations that have allowed bird and bat access. Assume it has reached its life expectancy. Roof, soffits, fascia’s, gutters and down spouts all likely requiring repair/replacement with potential building retrofit. Attic space would also require sprinklers and assume insulation upgrades;
15. **South Entrance:** wood stair and porch need repair/replacement;

Overall Review of WSP 2017 Report:

A49 have reviewed the repair recommendations made by WSP in their report dated July 20, 2017 (items 1 to 36) and concur that these items are still in need of intervention other than proposed interior upgrades which could be executed at the same time as future renovation projects. If the decision is to proceed with a major retrofit of the RRHC – we suggest all work be coordinated at one time, by a single general contractor.

PART TWO Conduct an exterior survey & identify building dimensions

Architecture49 (A49) visited the site on September 25, 2020 and met Shawn Amiotte from the Township of South Stormont. We reviewed all components of the building exterior including a quick visit inside at the ground and second floors. The third floor was not entered due to its current unclean interior. We measured the building exterior and took numerous photographs. The Township has also provided their own photographs with a key plan of each floor where the photographs were taken.

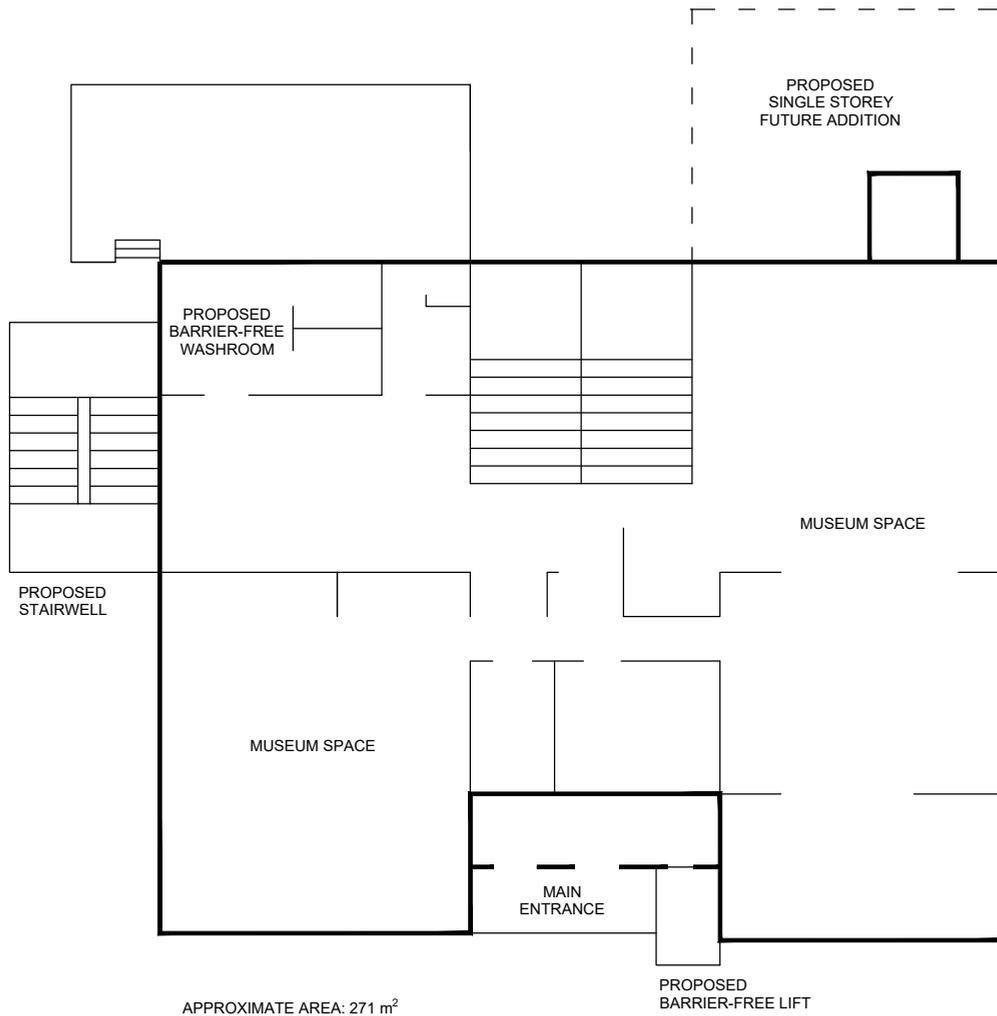


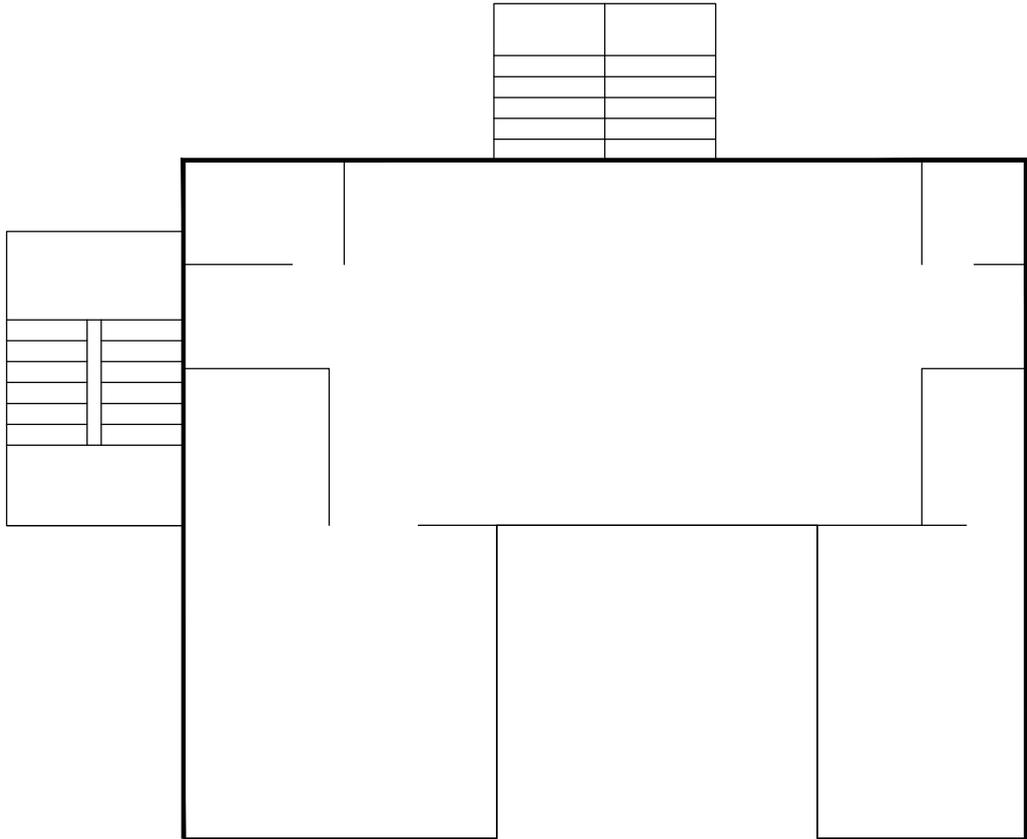
APPROXIMATE AREA: 271 m²

ARCHITECTURE | 49

1345 ROSEMOUNT AVENUE
CORNWALL, ONTARIO, CANADA
TEL: 613-933-5604 | FAX: 613-936-0335 | www.architecture49.com

**FIGURE 1
BASEMENT PLAN**





APPROXIMATE AREA: 239 m²

ARCHITECTURE | 49

1345 ROSEMOUNT AVENUE
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**FIGURE 4
THIRD FLOOR PLAN**

PART THREE Review and update Budget Costing dated October 4, 2017 by
WSP to 2020 dollars

Part 3 - Review & Update Budget Costing

11/17/2020

Rainsin River Heritage Centre - Estimate Update

	Estimate Notes		
A	This estimate is an update from the previously submitted WSP estimate dated July 20,2017		
B	Inflation rate taken from Bank of Canada - Inflation Calculator, October 12, 2020.		
C	Inflation amounts rounded to nearest zero.		
D	Increased costs due to Covid-19 not included.		
E	Refer to A49 Recommendations for itemized list.		

	Item	WSP Estimate	Inflation (1.63 % per year)	A49 Estimate
1	WSP General Requirements	\$74,420	\$3,710	\$78,130
2	WSP Renovation Items	\$353,750	\$17,620	\$371,370
3	Basement Renovations - Archives Renos			\$50,000
4	Ground Floor - Museum Renos			\$85,000
5	Second Floor - Administration Renos			\$45,000
6	A49 Recommendations (See Note E)			
6.1	Ontario Land Surveyor			\$3,500
6.2	Separate Driveway / Pedestrian Walkway			\$35,000
6.3	Fencing around property			\$22,000
6.4	Heritage Conservator			\$10,000
6.5	Short-term basement improvements			\$3,000
6.6	Boiler Room - Fire Protection			\$8,000
6.7	Secondary Windows - South Side			\$15,000
6.8	General Grounds Cleaning			\$2,500
6.9	New Baseboard Heaters			\$12,000
6.10	New Exit and Emergency Lighting			\$8,000
	Sub-Total 1			\$748,500
7	Contractor Overhead and Profit (10%)	\$42,800	\$44,930	\$74,850
8	Testing and Inspection Services	Not Included		\$7,500
9	Professional Fees	\$47,097	\$49,440	Not Included
10	Renovation Contingency	\$23,549	\$24,720	\$41,543
11	Design Contingency (3%)	Not Included		\$20,000
12	Estimate of Probable Costs (+HST)	\$541,616	\$568,590	\$892,393

PART FOUR Class 'E' Construction Cost Estimate for conversion of existing building to Archive Level Facility

Overall, with the evidence presented with WSP's 2017 report and in this condition assessment report, it is apparent that the RRHC needs repairs, maintenance and renovations to stabilize the building.

Furthermore, A49 explains here in this cost estimate, the considerable additional challenges in construction, retrofit and budget to consider the facility compliant with A2 or lesser, D Classification OBC standards. It is hoped that this report gives an accurate appraisal of the conditions that exist at the Heritage Centre and that it provides the Township and interested parties with the information which they need to adequately assess this matter.

Part 4 - Class 'D' Estimated Budget Costing

11/17/2020

Raisin River Heritage Centre - to Archive Level Facility

	Estimate Notes		
A	This estimate is an update from the previously submitted WSP estimate dated July 20, 2017		
B	Inflation rate taken from Bank of Canada - Inflation Calculator, October 12, 2020.		
C	Based on achieving OBC compliance to A2 building based on Part 11 - Major Renovation		
D	Assume achieves AODA accessibility & Upgraded HVAC systems		
E	Refer to WSP & A49 Reports for general list of construction items.		

	Item	WSP Estimate 2017	Inflation (1.63 % per year)	A49 Estimate
1	WSP General Requirements	\$74,420	\$3,710	\$78,130
2	WSP Renovation Items	\$353,750	\$17,620	\$371,370
3	Fire Separations (floors & interior stair case)			\$100,000
4	Interior renovations			\$50,000
5	Hardware upgrades (disabled standard & operators)			\$20,000
6	New fire-separated staircase			\$150,000
6.1	Elevator/disabled lift			\$25,000
6.2	Sprinkler & water service			\$160,000
6.3	Exterior site upgrades and fire access			\$20,000
6.4	Heritage Conservator			\$15,000
6.5	New windows			\$60,000
6.6	Exhibit design			\$20,000
6.7	Roofing replacement & Insulation Upgrade			\$150,000
6.8	IT systems & security			\$30,000
6.9	Upgraded HVAC includes dampers			\$100,000
6.10	Upgraded Lighting & Electrical			\$50,000
	Sub-Total 1			\$1,399,500
7	Contractor Overhead and Profit (7.5%)	\$42,800	\$44,930	\$104,963
8	Testing and Inspection Services	Not Included		\$7,500
9	Arch & Eng. Fees	\$47,097	\$49,440	\$111,960
10	Renovation Contingency 10%	\$23,549	\$24,720	\$139,950
11	Legal (site/survey easements)	Not Included		\$10,000
12	Estimate of Probable Costs (exclusive of HST)	\$541,616	\$568,590	\$1,773,873

PART FIVE Recommendations

The Raisin River Heritage Centre is considered as an important historical asset to the Community. The challenge is to find a viable and active practical use for the facility. The 2017 WSP report, essentially described basic upgrades and maintenance work required to stabilize the building. Although the work items were not prioritized – all building upgrades were considered necessary to reduce further building deterioration.

A49 here updates that report and costing to bring the basic maintenance work to 2020 dollars. This is documented by the Class 'D' Estimate in Part 3.

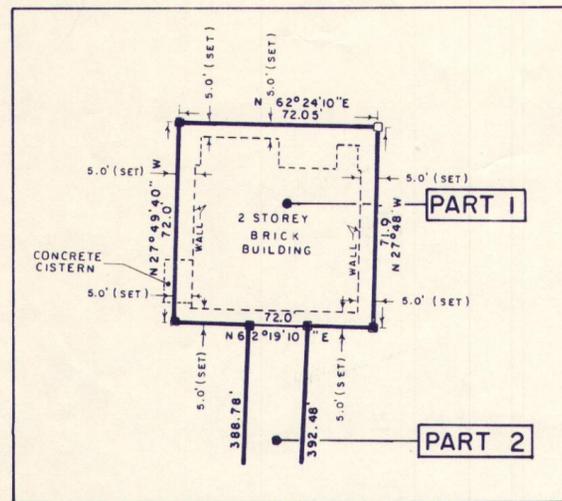
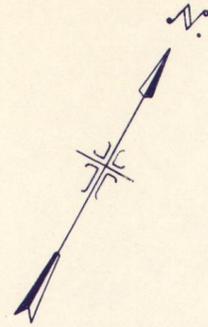
A49 also proposed in this report the task beyond maintenance, to upgrade the Heritage Center to attempt to meet Ontario Building Code Fire & Life Safety standards, provide accessibility to disabled persons (a Provincial mandate for public buildings) and attempt to achieve basic standards for archival buildings – all with attention to the important aspect in preserving the buildings historical significance. This is documented by the Class 'D' Estimate in Part 4.

- 1- Updating the RRHC will require significant cost to comply with the OBC and create a safe and accessible, stabilized heritage building. A budget target to achieve this goal should be considered seriously. It should also be considered if this three storey, heritage building is well suited as a public archive or museum. Seldom are combustible buildings used in such a way today, but some exist successfully (likely legally non-compliant since not seeking building permit), example: Stone House Museum, Cornwall and Nor'westers & Loyalist Museum Williamstown. While the Sir John Johnston House has been upgraded with sprinklers to accommodate the National Building Code;
- 2- Any exterior addition to the building (forestair and elevator) is likely going to require additional land from the CDSBEO and possibly, a Minor Variance for reduction of setbacks, as well as, approval from the RRCA for permit to construct within the Raisin River Flood Plain. Detailed concept plans and survey updates will assist in this planning and help determine availability for emergency would include, vehicle access route, parking, and other features.
- 3- Confirmation as to Ontario Heritage Designation to review proposed modifications of exterior and interior components would be necessary to engage a heritage conservator;
- 4- Other:
Implement repairs to the exterior of the building as per WSP's recommendations in their report dated July 20, 2017.

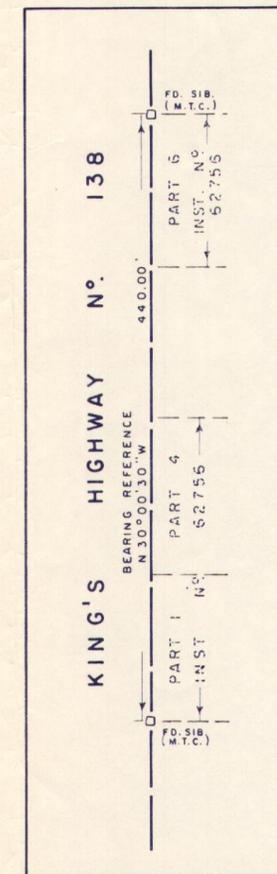
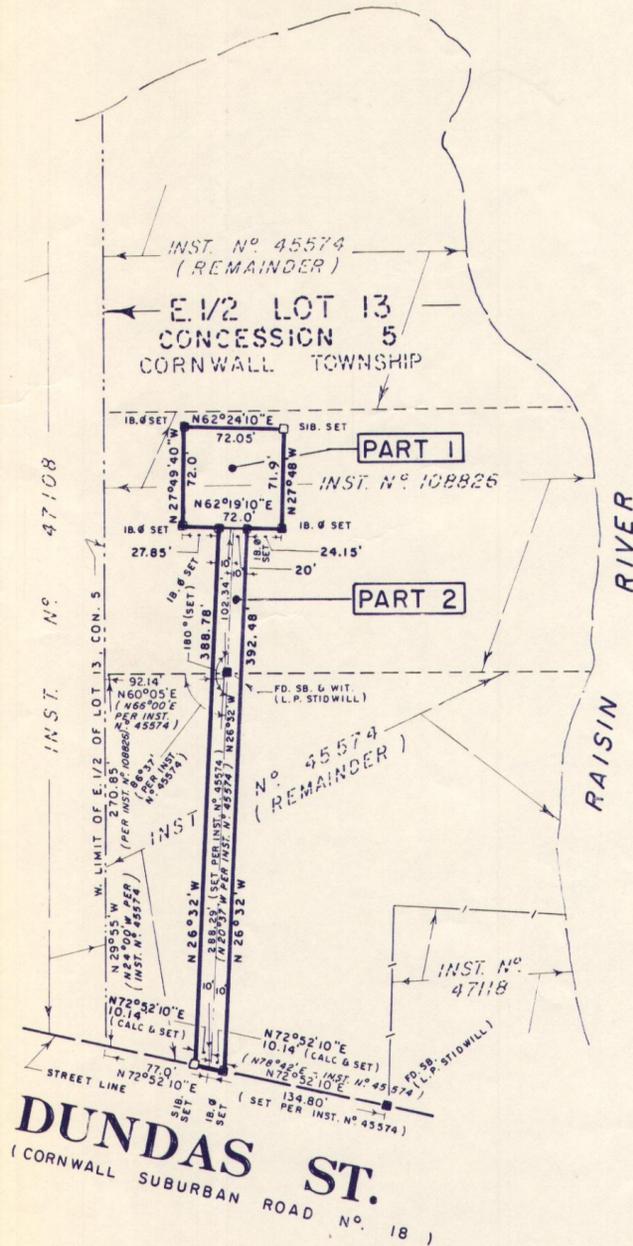
PART SIX Figures

REFERENCE PLAN
SHOWING
PART OF THE EAST 1/2 LOT 13, CONCESSION 5
CORNWALL TOWNSHIP
STORMONT COUNTY
SCALE 1" = 100'
1980

STIDWILL and SMITH
ONTARIO LAND SURVEYORS



DETAIL
SCALE 1" = 50'



BEARING REFERENCE
SCALE 1" = 100'

PLAN 52 R-1586
RECEIVED AND DEPOSITED

I REQUIRE THIS PLAN
TO BE DEPOSITED UNDER
THE REGISTRY ACT.

JUNE 26, 1980
L. G. Smith
L. G. SMITH
ONTARIO LAND SURVEYOR

July 2nd, 1980
Andre Bernier
LAND REGISTRAR FOR THE
REGISTRY DIVISION OF
STORMONT

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH "THE SURVEYS ACT" AND "THE REGISTRY ACT" AND THE REGULATIONS MADE THEREUNDER.
2. THE SURVEY WAS COMPLETED ON THE 23rd DAY OF JUNE 1980.

JUNE 26, 1980 *L. G. Smith*
L. G. SMITH
ONTARIO LAND SURVEYOR

STANDARD IRON BARS 1" x 4' SHOWN ⊕ SIB.
IRON BARS 3/4" x 2' + SHOWN ⊙ IB.
SUBDIVISION BARS 1/2" x 2' + SHOWN ⊙ SB.
WOODEN PICKETS SHOWN ⊙ WP.
IRON BARS 3/4" x 2' SHOWN ⊙ IB. ⊙

BEARINGS ARE ASTRONOMIC, ARE DERIVED FROM THE WEST LIMIT OF PARTS 1, 4 & 6 (N 30°00'30"W) AS SHOWN ON INST. N° 62756 AND ARE REFERRED TO THE MERIDIAN AT LONG. 74°48'W

CAUTION THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN THE MEANING OF THE PLANNING ACT.

SCHEDULE

PART	LOT	CON.	INST. N°	AREA	REMARKS
1	E. 1/2 13	5	108826	5181 sq. ft. ±	OWNER STORMONT, DUNDAS AND GLENGARRY COUNTY ROMAN CATHOLIC SEPARATE SCHOOL BOARD
2			108826 45574	7812 sq. ft. ±	



St. Andrew's
Catholic School



PART SEVEN Photographs



Photo 1 – South Elevation, 2017



Photo 2 – West Elevation, 2017



Photo 3 – North Elevation, 2017



Photo 4 – East Elevation, 2017



Photo 5 – Brick Masonry Deterioration, 2017



Photo 6 – Brick Masonry Deterioration, 2017



Photo 7 – Brick Masonry Deterioration, 2017



Photo 8 – Stone Masonry Deterioration, 2017



Photo 9 – Chimney Masonry Deterioration, 2017



Photo 10 – Third Floor Batt Droppings, 2017



Ground Floor Alter, 2020



Open Circulating Stair, 2017



Basement addition 2017



Ground Floor, 2017