



Rosemount Public Library Expansion Feasibility Study



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1 | PROJECT BRIEF

Architecture49 was retained by the City of Ottawa to review and report on the implications of zoning and servicing conditions with respect to the contemplated addition to east and north sides and/or a third floor addition to the existing Rosemount Public Library at 18 Rosemount Ave., Ottawa, ON.

The report includes:

- A review of zoning and minor variance requirements to identify the maximum boundaries the library could expand to and identify limitations as a result of the zoning requirements.
- A preliminary site review identifying any and all underground services (sewer, power, utilities, etc.) which could be potential constraints to any future construction.
- A site drawing of the maximum amount of space that a future addition could add to the building and the size of that space.
- An overview of time requirements to deal with associated zoning issues, minor variances or other applications processes required by authorities having jurisdiction.
- Details on any underground services constraints including high level cost estimate(s) (Class D) on removing or otherwise dealing with the constraint(s). Identification of possible time requirements in dealing with any of these identified issues which would be outside of usual building permit approval processes.

2 | EXECUTIVE SUMMARY

The purpose of the report is to review the site constraints that will have significant impact on any proposed addition to the existing library at 18 Rosemount Avenue, Ottawa, ON.

The report is limited to analysing the limitations of current zoning, constructability and building infrastructure servicing the building.

The Rosemount Public Library will be 100 years old in 2018. It is a product of the Carnegie Library building Program from the turn of the last century. It has had two major renovations/additions in its life and in many respects the character of the original building can still be seen, although the original entry portico has been removed and the entrance moved to the basement level. The building still functions as a small local library however, it has exceeded its expected life in all regards and arguably does not meet the needs of a modern library.

The potential usable area that can be obtained by an addition is limited by current zoning and constructability issues. The zoning setbacks permit only a small triangular area to build on, of which most is inside the current footprint of the library. A minor variance would be required to add any reasonable area to the building, regardless of its location(s) on the building.

The major constraints that impact the project from a buildability perspective and cost include.

- ⑤ High Voltage Overhead lines along the west side of Rosemount Avenue. It is impractical to relocate these lines as the entire block would need to be buried at a cost estimated at over \$1,500,000. A no-build safety area must be respected that will preclude building a 2 storey addition to the front property line. A basement level addition can be made larger than the ground floor addition across the front.
- The recently built condominium building and its parking access ramp make construction on the site difficult for excavations and the erection of any addition.
- A third floor addition will require excessive intrusive investigations to determine if the structure can support a third floor or a second floor cantilever. Costly and unjustifiable structural interventions would be required to support either of these conceived additions and they could significantly alter the existing architectural features of the library.

- Seismic upgrades would be required for a third floor addition or a second floor cantilever which will have further impact on the existing building.
- Although not a listed historic property any significant alterations to this building could trigger public opposition.

Any addition to this building will be done at excessive project costs as a result of increased consultant time and increased construction costs from site constraints and building restoration as a result of proposed work. Although the magnitude of these costs cannot be fully determined in the scope of this report it is the opinion of Architecture49 that an addition to this building should not be considered. The building should be maintained or renovated within its current building envelope, be abandoned as a public library or replaced with a new library on this site.

3 | PROJECT ANALYSIS

The Rosemount Public Library was built in 1918 and is the last Carnegie library in the city of Ottawa and Canada that was funded by American philanthropist Andrew Carnegie in early 1900s. It is a modest 1 storey building that is raised half a level above the street. The main floor is used for stacks and circulation and the basement has additional usable area and back of house functions. A rear addition built in 1932, and a front addition as part of an accessibility upgrade in the early 1980's have altered the building to its existing condition. The rear addition added a reading room and stacks to the original building. The accessibility upgrades moved the main entrance to the basement level via a sunken front courtyard and air lock entrance vestibule.

There are no architectural or structural drawings available for this review. Therefore based on observations it is assumed that the building's main structural system is load bearing masonry exterior walls. (which now includes an interior wall that was once the rear exterior wall) The flat roof structure appears to be wood trusses spanning in the east west direction, that may have had reinforcement repairs to them at some point. The basement level is partially above grade and has a rusticated brick banding and vertical rectangular windows. The main level of the library has large arched Palladian windows facing Rosemount Avenue and rectangular windows on the north and south elevations. The windows are not original to the building,

4 | SITE OVERVIEW

The Site at 18 Rosemount Avenue is a trapezoidal shaped parcel of land on the west side of Rosemount avenue. The south-east boundaries of the site form a right angle and the northern boundary is diagonal to the south boundary leaving a front yard that is wider than the rear yard.

The frontage of the site is 25 m, the rear boundary is 11.59m and the lot depth is 28.3m. The lot area is 526m². The footprint area of the building is 275 m² and it covers 53% of the site. The Gross floor area of the building is approximately 545 m².

The following zoning applies to the building

- Zoned I1A – (Mature Neighbourhood) Permitted uses includes a library
- Setbacks

Front Yard	3.0m
Rear Yard	7.5m
Interior Side Yard	4.0m
- Maximum Height 15.0m
- Max Site Coverage Unlimited

Refer to Diagram One for the permitted buildable area based on zoning

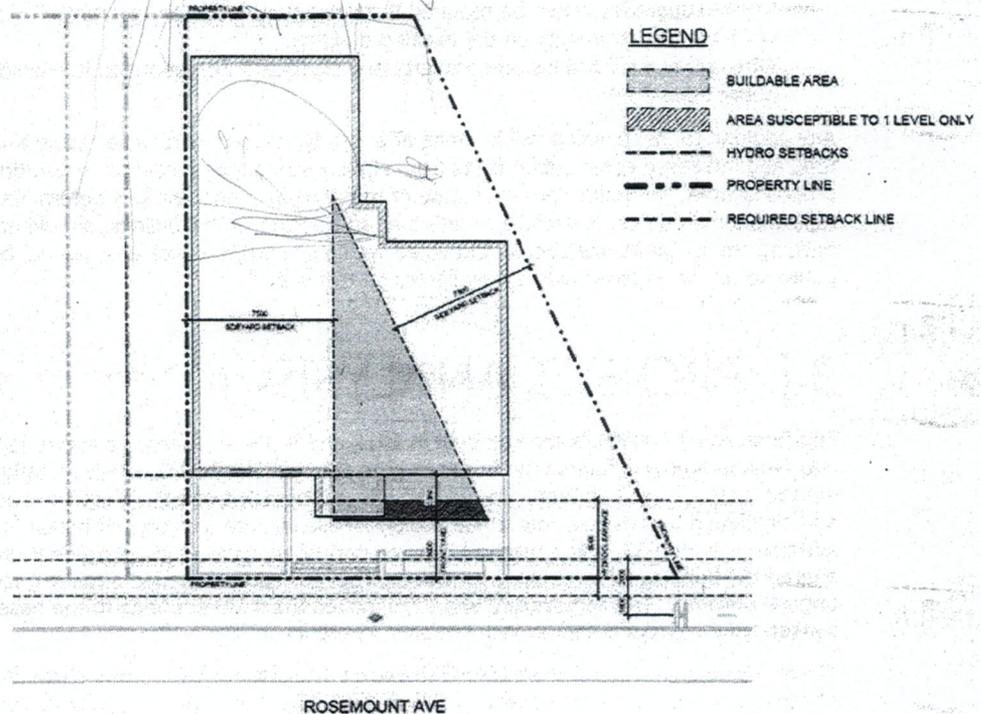


Diagram One – Permitted Buildable Area Allowed with Current Zoning.

The building was originally designed as a 1 storey building with a basement level. An accessibility upgrade in 1982 removed the original entrance and relocated it to the basement level. This was done by creating a sunken courtyard in the north east corner of the site with a switch back ramp leading down. An airlock vestibule was built at this level on the face of the original building and directly below the original entrance. This work included an interior elevator to access both levels of the building.

The site is bounded on the north and west sides of the site by a 6 storey residential condominium with ground floor commercial space. Construction of this building will be completed in 2016. To the south of the site is a 2 storey commercial building that was originally a school and went through extensive renovations in the late 1980's or early 1990's. The strip of land between the library and the commercial building to the south is now a concrete vehicular ramp leading to and from the underground parking garage of the condominium building. The building usage on the opposite side of the street from the library varies from a single storey commercial buildings facing onto Wellington Street to multi-level residential buildings of apartment, duplex and single family building types.

The underground services along Rosemount avenue were replaced in the mid 1990's, separating storm and sanitary lines and replacing other services. The library's water, sewer and gas services enter the building through the front wall at the basement level.

The Library's electrical supply is from an overhead power line on the west side of Rosemount Ave. The power line enters the building underground at the northeast corner of the building from a utility pole at the curb line near the northeast corner. In addition there is an underground conduit with a fiber optic cable entering the building at the same location and from the same utility pole.

The overhead lines in front of the building include primary power lines, two (2) sets of secondary power cables, Bell telephone line, Roger's cable, and fiber optics cables. All of these overhead lines provide services to all the buildings on both sides of the street: either overhead or underground.

5 | ANALYSIS OF CONSTRAINTS

5.1 ZONING CONSIDERATIONS

The current setbacks that apply to this site result in a small triangular shaped buildable area mostly within the existing building foot print. (See diagram One) A minor variance would be required to add any meaningful additional space to the library. In reviewing this from a conceptual level with City of Ottawa Planners the addition would most likely be recommended and ultimately be approved. However a detailed design would have to be prepared and taken through the minor variance process. Any proposed design presented for a minor variance would have to meet the 4 planning aspects of any minor variance;

- That the proposed addition meets the General Intent and purpose of the Bylaw being varied
- That the proposed addition meets the General Intent and purpose of the Official Plan
- That the proposed addition is Desirable, for the appropriate development or use of the land, building or structure.
- That the proposed addition is minor in nature

Relief would have to be sought through a minor variance application for East and West side yard setback and possibly height. The height relief would be determined by a proposed design.

When seeking a minor variance a risk always exists that it will not be approved. A detailed design that indicates the addition extent and general architectural intent must be developed as part of the application. The level of risk for a minor variance for this building cannot be determined without a conceptual design. Opposition to a minor variance can come from the Authority Having Jurisdiction, in this case the City of Ottawa planning staff or elected official or from a member or organization of the community that has legitimate concerns about the nature of the proposal. Regardless a minor variance application adds cost, risk and time to the project without a guaranteed outcome of success or a predetermined amount of additional area.

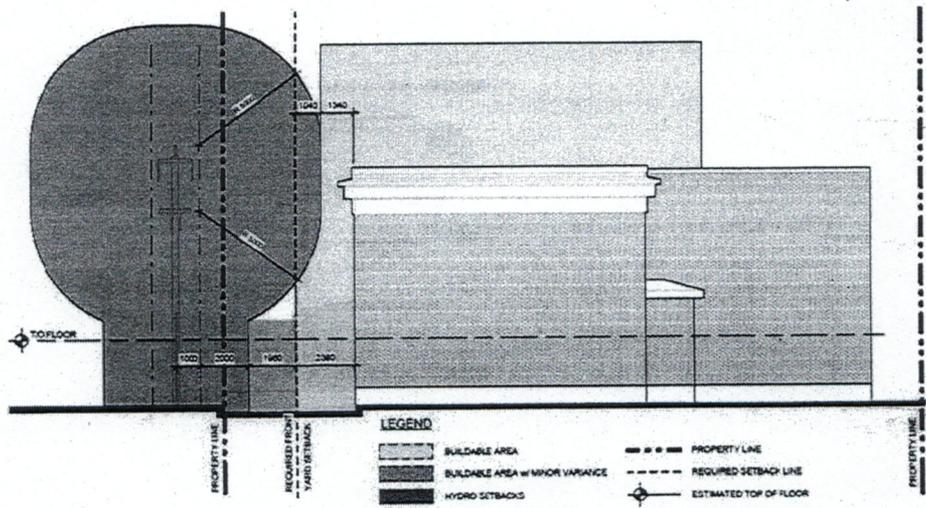
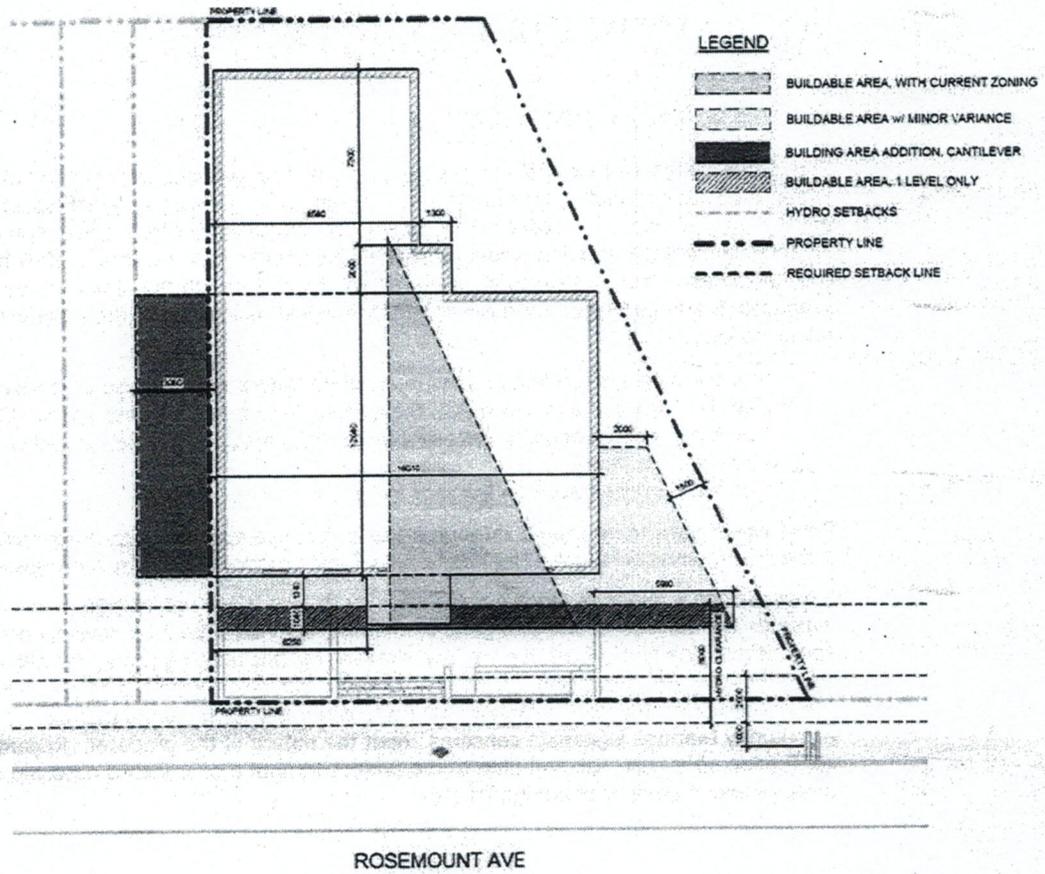


Diagram Two – Potential Buildable Area with Minor Variances.

5.2 HISTORICAL CONSIDERATIONS

The Rosemount Public Library is not a designated historical building, but it is on the City of Ottawa Heritage Reference list. The primary historical attributes of the building include its front façade and that it is a building from the Carnegie Library Building Program of the late 1800's. As discussed with Sally Coultts of the City of Ottawa

Heritage Services, the building has been too altered over time to justify historical designation. The alterations have seriously affected its heritage value and it will not be recommended for Heritage Designation. However, it is expected that any work to the building would bring attention the local architectural historical societies or other interested parties who may not share that view and may work to change the historical status and potentially limit and/or delay any additions



5.3 BUILDING SERVICES CONSIDERATIONS

.1 ELECTRICAL

The Library's power supply is from an overhead power line on the west side of Rosemount Avenue. The poles include primary power lines, two (2) sets of secondary power cables, Bell telephone line, Roger's cable, and fiber optics cables. All of these overhead lines provide services to all the building on both sides of the street: either overhead or underground. The face of the main building wall is approximately 7.6 meters from the center of the overhead power lines.

From a utility pole at the curb, near the northeast corner of the site the electrical power and a fiber optic cable enter the library, underground, at the northeast corner of the building. They enter into a utility room on the opposite side of the wall at this location. Relocating these services is expensive and would have an impact and could limit any proposed addition in this location.

The existing power lines on the west side of Rosemount Avenue limit the extent of any potential addition. A 5m diameter safety clearance is required around the high voltage lines plus a 1m clearance from the pole (below the 5m circular area) that results in a no build zone that impedes on the zoning setbacks and limits any relief through a front back set minor variance. The basement level addition that is the current entrance falls outside this no build zone, however a full main floor addition would be limited to the setbacks outside the red shaded area in image (See diagram 3).

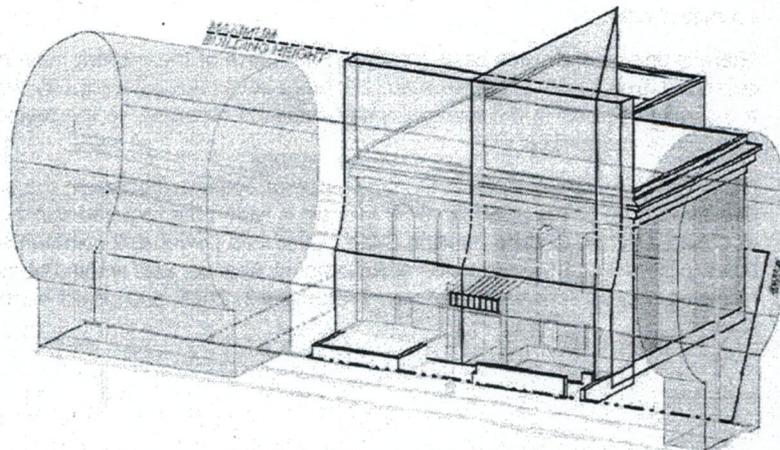


Diagram 3 – Overhead Power line Safety zone with Respect to Building Setbacks

In discussions with Hydro Ottawa it would be very costly, impractical and unjustifiable to bury the overhead utility lines. In situations such as this Ottawa Hydro will not bury only a portion of the line, they will only bury an entire block. This would in turn would require the installation of underground duct banks, and locations for outdoor pad mount transformers or transformer vaults in some buildings. Additionally underground duct crossing the road would also be required which would need blasting due to the shallow rock level in this area and new street lighting would be required as the existing lights are located on the utility poles. Bell, Rogers and fiber optics services would also have to be re-distributed underground to all the buildings. There would be considerable engineering cost associated with providing new services to all the buildings on this block of Rosemount Ave.

It is assumed for the purposes of this report that any addition would be built across the entire front of the building therefore requiring modifications or relocation of all electrical and mechanical services that enter the building in their current locations.

.2 CIVIL

SITE ANALYSIS

The analysis for civil engineering related infrastructure examined services for water supply, sanitary sewage, storm sewage and natural gas. As the site has frontage only on Rosemount Avenue, all current services are accessed from the east side of the property.

The pipe services in the Rosemount Avenue right of way were constructed in the early 1990's. The City of Ottawa provided copies of as-built drawings dated December 1993 for Contract 93C2334. This was a City of Ottawa project, although water works at that time were under the jurisdiction of the Regional Municipality of Ottawa-Carleton. At that time, a 203mm diameter watermain, 450mm diameter sanitary sewer, and 525mm storm sewer were installed. The library has service connections to these utilities.

Additional mapped information regarding other utilities, including gas, communications and power, in the right of way was obtained from City of Ottawa Utility Coordinating Committee (UCC) Sheet Number E-08-17, dated April 2013. This information, which covers only the right of way, was supplemented by on-site utility locates carried out by USL-1 in September 2015.

The information collected from the above three sources has been compiled into a single sketch, entitled "Existing Service Locations", prepared by WSP. A copy of this sketch is appended to this report.

Based on the existing records, the library building is serviced with a 40mm diameter water supply, 150mm diameter sanitary sewer, 200mm diameter storm sewer, a fibre optic line (Bell), a gas line (Enbridge), and an electrical supply (Hydro Ottawa). None of the available information sources confirmed the exact location of the sanitary and storm services, so these are noted on the sketch as estimated only.

There is one on-site catch basin located to the north of the present main door, in the exterior lowered courtyard area, which is approximately 450mm below the adjacent City sidewalk. No problems related to ponding of water in this lowered area have been reported, so the catch basin appears to be functioning adequately.

A City fire hydrant is located in the small asphalt boulevard between the street and City sidewalk, directly in front of the building. This hydrant is within the required minimum distance from the building as dictated by the Ontario Building Code. Overhead power and communication lines are carried by poles located along the west side of Rosemount Avenue, also within the asphalt boulevard. The following photographs were taken on September 3, 2015, and depict existing conditions in front of the library.

Civil Engineering Images



Image 5.3.2.1
View of east face of library building from Rosemount Avenue. City hydrant in foreground. Building water service is buried to the right of the hydrant

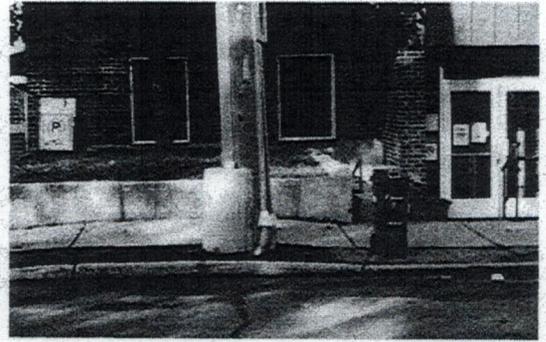


Image 5.3.2.2
Utility pole in boulevard. No services run directly from this pole to the library



Image 5.3.2.3
View looking north in front of library
Gas line location depicted by yellow paint.



Image 5.3.2.4
Upper end of existing access ramp.



Image 5.3.2.5
Lower east courtyard area, including catch basin near bike rack.

ANALYSIS OF CIVIL CONSTRAINTS

No known constraints exist pertaining to the servicing of the site for a modest expansion with regard to water, sanitary, storm and gas. The available mains are all capable of meeting any anticipated demands.

As the only area for building expansion is on the east side of the site, and possibly in the northeast corner, existing building services would have to be modified to adapt to the expanded building footprint. The length of the exterior services will be shortened, and it is expected that the service lines contained within the expanded footprint would likely be replaced, and possibly relocated to suit the interior layout.

The existing size of the sanitary and storm services is anticipated to be adequate to support an expansion. The adequacy of the present water service to meet the needs of a modified building will be dependent upon factors to be determined at the time of design. If necessary, an increased size of water service can be provided, as would be necessary to provide an adequate water supply for a sprinkler system. The present building does not have a sprinkler system. The adequacy of communication, gas and power services will need to be determined by the respective utilities.

The probable small size of any building expansion, combined with the already impervious surface of the front area of the site will result in no increase in stormwater runoff. If necessary and desired by the City, some quantity control for stormwater can be introduced on any new flat roof areas.

The building expansion area will not result in the need to modify the location of any services other than those directly serving the building. No changes in the street located utilities are expected other than the possible replacement for the building water service.

There are no anticipated building servicing costs for water, sanitary, storm or gas what would be out of the ordinary for a modest building expansion. If the water service does need to be replaced, the expected magnitude of cost would be in the range of \$20,000.00, which would include the cost of the water permit and associated City supplied services.

5.4 CONSTRUCTABILITY CONSIDERATIONS

The building as it exists today covers approximately 53% of the site. Much of which is virtually inaccessible or subject to constraints that are too costly to remove. Therefore adding additional usable area to the building can only occur at the following four locations;

- Across the front
- On the north-east corner
- A third floor addition, with or without a south wall cantilever and
- A main floor cantilever off the south wall.

All four options result in considerable additional costs, primarily as a result of restricted access for construction activities and substantial repair costs that would be required to upgrade, preserve or reinforce the existing structure.

FRONT ADDITION

The front addition would be the easiest of the three locations to build. There is relative easy site access and it is reasonable to assume the rock has been removed in this area as a result of the original construction or the relocated entrance. The constraints that this location face include:

- Limited buildable area due to both setbacks and the overhead power lines.
- A minor variance application would be required and approved that would have to meet the four planning aspects of any minor variance.
- The overhead power lines will also require additional safety considerations during construction that will add hidden costs to the project.
- Building Service entry may need to be relocated to accommodate the new building plan.
- Potentially the elevator may need to be relocated to accommodate the new building plan.

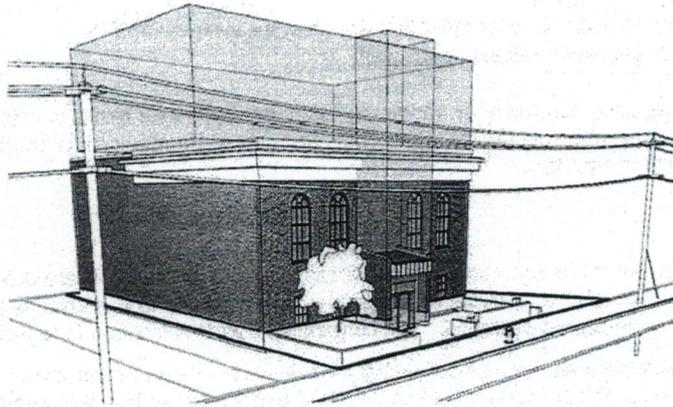
NORTH SIDE ADDITION.

A north side addition can reasonably be constructed at the north-east corner of the building along the original north wall, however access to the triangular portion of land adjacent to the 1940's rear addition would be very difficult for excavation and construction equipment due to property line and adjacent building locations. Any addition on this side of the building will face many of the challenges that a front elevation would.

- A minor variance application would be required and approved that would have to meet the four planning aspects of any minor variance.
- The probability of rock excavation is higher but cannot be confirmed without additional exploration beyond the scope of this report.
- The proximity of the new adjacent building makes working on this site more difficult. Prior to the condominium being built approvals to work over or on the neighbouring parking lot would have been sought. Now with a building in this location that option no longer exists and additional care to avoid damage to the building will be a hidden costs.
- Exterior walls in this location would have to be built as fire rated walls, with non-combustible cladding. This is not difficult to achieve but ultimately is more expensive than building unrated walls.
- The existing building occupies most of the site. There is no layout room for construction. Additionally, because of the proximity of the building to the site boundaries manoeuvrability on the site will be difficult thus adding costs for additional labour and specialized equipment.

THIRD FLOOR ADDITION.

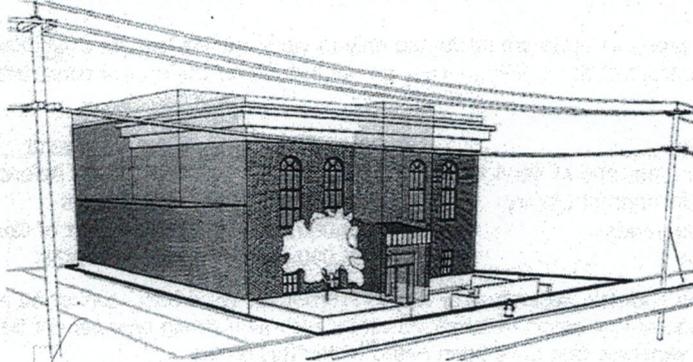
A third floor addition and possible cantilever over the drive aisle to the condominium parking lot has been considered as possible solution to the space needs for the library. Although reasonable conceptually, this may be the most expensive option to increase the floor space. The following list addresses high level concerns with respect to the increased cost and risk associated to this concept.



- A minor variance application would be required and approved that would have to meet the four planning aspects of any minor variance.
- Air rights to build over the condominium parking garage ramp would need to be negotiated and agreed upon, requiring considerable design time and legal fees.
- The condominium parking garage ramp would have to be closed during construction of the cantilever.
- Structural analysis of the existing walls and footings would have to be completed to determine if they could bear the additional loading of the third floor. Additional structural concerns include;
 - Seismic upgrades to the existing structure.
 - Additional structural support that would extend to the footing level or beyond that could alter the existing building and its character on both the interior and/or exterior. This could be an exoskeleton in front of the existing building or more likely the introduction of new columns inside or against the interior face of the existing walls and likely new columns within the existing floor space.
 - Additional cost to implement new structural work and repair existing conditions as a result of the proposed work.
 - Bearing capacity of the rock and the possible cost of localized removal for new footings.
- Substantial upgrades to the mechanical systems would likely be required that would affect the existing building. This could include new vertical duct chases within the existing floor area and bulkheads that effectively lower the existing ceilings.
- The building size would be increased in area and height that would require that a sprinkler system be installed throughout the building, providing a detailed analysis through Part 11 of the Ontario Building Code could preclude this requirement.
- The elevator would have to be either rebuilt in a new location or at least be extended. The details of extending the elevator have not been reviewed and this may not be possible.
- Additional costs would be incurred to construct the exterior walls and fire rated floors between the proposed addition and the existing building.
- The existing building occupies most of the site. There is no layout room for construction. Additionally, because of the proximity of the building to the site boundaries manoeuvrability on the site will be difficult thus adding costs for additional labour and specialized equipment.
- The building could not be occupied during construction. The contents would have to be removed and stored. Alternatively a temporary library location could be leased. Either option increases the project costs.

MAIN FLOOR CANTILVER ADDITION.

A cantilever addition off the main floor over the drive aisle to the condominium parking lot has been considered as possible solution to the library's space needs. Although reasonable conceptually, it would incur all of the same constraints noted above for a third floor cantilever and more. Due to the relatively small area gained the costs per square meter of this option would be the greatest of all options. The following list addresses high level concerns with respect to the increased cost and risk associated to this concept.



A minor variance application would be required and approved that would have to meet the four planning aspects of any minor variance.

- Air rights to build over the condominium parking garage ramp would need to be negotiated and agreed upon, requiring considerable design time and legal fees.
- The condominium parking garage ramp would have to be closed during construction of the cantilever. This is likely to an unacceptable condition to the condominium.
- A study to determine if sufficient clearance under the cantilever could be achieved and still allow vehicles to access the condominium parking lot would have to be undertaken as part of the design.
- Structural analysis of the existing walls and footings would have to be completed to determine if they could bear the additional loading of the cantilever. Additional structural concerns include;
 - Seismic upgrades to the existing structure.
 - Additional structural support that would extend to the footing level or beyond that could alter the existing building and its character on both the interior and/or exterior. This could be an exoskeleton in front of the existing building or more likely the introduction of new columns inside or against the interior face of the existing walls and likely new columns within the existing floor space.
 - Additional cost to implement new structural work and repair existing conditions as a result of the proposed work.
 - Bearing capacity of the rock and the possible cost of localized removal for new footings.
- The building size would be increased in area that would require that a sprinkler system be installed throughout the building, providing a detailed analysis through Part 11 of the Ontario Building Code could preclude this requirement.
- The existing building occupies most of the site. There is no layout room for construction. Additionally, because of the proximity of the building to the site boundaries manoeuvrability on the site will be difficult thus adding costs for additional labour and specialized equipment.
- The building could not be occupied during construction. The contents would have to be removed and stored. Alternatively a temporary library location could be leased. Either option increases the project costs.

A third floor addition or a cantilever addition regardless of level would require an entire gutting of the interior incurring cost to protect or reinstate the architectural elements of merit while rebuilding existing conditions so that the finished appearance does not look like patch work. Compromises with respect to

interior layout, circulation and use of space inevitably will need to be made to accommodate or maintain desired existing features of the building. The efficiencies of the entire building envelope will also be compromised in that the new envelope will be more efficient than the existing. Great efforts to properly detail and construct the joint between these two elements will need to be done to ensure no potential damage occurs to the existing elements.

COST ANALYSIS

The following probable costs are attributed only to work outside the site boundaries for a simple addition to the front of the building. They do not include for the cost of construction of additional space.

Item Description	Probable Cost	Time Constraint
Burying Power Lines and all services	\$1,500,000.00 ¹	Min. 1 year before construction start.
Temporary Relocation of Library	\$ 600,000.00 ²	Min. 2 years
Civil Service Upgrades	\$ 20,000.00	None – Part of Construction
Minor Variance	\$ 75,000.00 ³	Min. 6 months.

The costs of an addition, regardless of location (Front vs. Third floor) cannot be reasonably determined within the scope of this report. Historical cost by area by building type cannot be applied to a project with so many variables that have been noted within this report.

Notes:

1. This estimate includes the costs of relocating (burying) the overhead lines only. The cost of land acquisition for outdoor pad mounted transformers, or transformer vaults in some buildings and the duct banks to feed the existing buildings is not included. Similar hidden costs would be incurred for data and fibre optic redistribution. Engineering and Legal Costs are not included.
2. This is based on a 2 year lease at \$50 gross/ft² for equal area and moving costs. Includes application fee and estimate of consulting and legal services.

6 | SUMMARY

Any expansion to the Rosemount Public Library will be limited by site constraints and high construction and project costs.

By ruling out a third floor addition and any cantilever, the amount of gross floor area that could be reasonably be gained, assuming a minor variance would be granted, is approximately 114m² (68.3m² basement level, 45.7m² main floor). To have any benefit to the existing library extensive renovations would be required to the interior as this limited area gained most likely would be used for circulation and a small gain in stack or reading area. Any heritage aspects of the front façade would be lost.

The two major limiting site constraint factors are the current zoning setbacks and the high voltage overhead power lines. Although it is reasonable to assume the zoning constraints could be overcome through the minor variance process, the available area to build on is further limited by the setbacks imposed by the high voltage lines. Layered on top of the regulatory constraints are constructability issues resulting from the power lines and the constrictions created by the existing building on the site. A building design would have to be developed that takes into consideration the constraints of the site. For example, erecting a crane would be impossible without access onto the neighbouring properties. If granted the movement of materials below the overhead lines and onto the site will most likely reduce the building footprint. The constructability issues will add costs that can only be determined after bidding in a typical Design/Bid/Build delivery method.

An addition that can be constructed within the zoning requirements and power lined restrictions will be limited in area to a rectangular shape approximately 2.3m x 6.7m more or less centred on the front façade. Any other addition will be limited in size as per the chart below and will require a minor variance. All the additions below assume the power lines will not be relocated.

Addition Location	Approx. Dimensions	Gross Floor Added	Notes
Basement Level Bldg. Width	2.35m x 16.0m	37.6m ²	
Main Level Bldg. Width	1.34m x 16.0m	21.4m ²	
Basement Level North Side	7.85mX4.0m	31.4m ²	Triangular addition
Main Level North Side	6.84mX4.0m	27.4m ²	Triangular addition
Addition over Original Bldg.	12.0mX16.0m	192.0m ²	
Cantilever Addition to 3 rd Flr.	12.0mX3.0m	36.0m ²	
Cantilever Main Floor	12.0mX3.0m	36.0m ²	

Architecture49 has considered the possible options for increasing the floor area for this building and would not recommend any as a viable option to consider. Although it is not possible to provide an exhaustive or accurate order of magnitude with respect to costs the factors listed above and experience would preclude that there is not a cost effective solution for adding additional usable area to this building. We would estimate that the cost of a third floor addition would be comparable to demolishing the building and replacing it with a modest new building equal in area to the existing plus the third floor on the same site. All other additions would be burdened with hidden costs due to constructability issues that would raise concern over the value of the space obtained for the money spent.