



Report Prepared for Toronto Catholic District School Board

Accessibility Assessment Report

St. Thomas Aquinas 636 Glenholme Ave., York, Ontario

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1 EXECUTIVE SUMMARY

Roth IAMS Ltd. (Roth IAMS) was retained by the Toronto Catholic District School Board (TCDSB) to undertake accessibility assessments (AAs) of TCDSB's buildings to facilitate TCDSB's objective to be better informed on the existing accessibility barriers at each of their facilities (schools and administration buildings). The data gathered from the AAs is to help establish a new Multi-year Accessibility Plan.

This report covers the AA for St. Thomas Aquinas, which is located at 636 Glenholme Ave., York, Ontario.

2 FACILITY SUMMARY

2.1 FACILITY DETAILS

Table 1 highlights the details of St. Thomas Aguinas.

Table 1 – Facility Details				
Building Name	St. Thomas Aquinas			
Facility Type	Elementary School			
Region	West			
School Facility Inventory System	4503			
Number (SFIS #)				
School Code	236			
Address	636 Glenholme Ave., York, Ontario			
Estimated Area (m ²)	6,160			
Number of Floors (Program)	3			
Split Levels	Υ			
Programming on non-principal level	Υ			

2.2 SUMMARY OF ESTIMATED IMPROVEMENT COSTS

Based on the findings of the AA, Table 2 summarizes the estimated improvement costs for the subject building. Items #1-6 in Table 2 are estimated improvement costs to address accessibility barriers, based on the Ontario Ministry of Education Accessibility Calculator (EDU Accessibility Calculator). The improvement cost for service counters, which is not addressed EDU Accessibility Calculator, is provided in addition, given that service counters are in the path of travel, and integral to the school's operations. The service counters were assessed for barrier-free accessibility in accordance with the design specifications prescribed Integrated Accessibility Standard (O.Reg 191/11).

Given recent market conditions (supply chain crisis, the increase in the consumer price index, etc.) an inflation factor 40% was applied to the improvement costs provided in the EDU Accessibility Calculator.



Table 2 – Improvement Cost Summary					
Element	Cost				
Costs from Accessibility Calculator					
1. Parking	\$7,000				
2. Barrier Free Path – Exterior	\$21,000				
3. Barrier Free Path – Interior	\$924,000				
4. Fire Alarm	\$241,472				
5. Washroom – Universal	\$105,000				
6. Washroom – Regular	\$131,600				
Additional Costs					
7. Service Counters	\$10,000				
Estimated Total Cost	\$1,440,072				

3 SCOPE OF WORK

The EDU Accessibility Calculator formed the platform for the Accessibility Assessment. The EDU Accessibility Calculator was designed to provide at a high-level, reasonable accommodation to students, staff and patrons with disabilities, using the facility. The EDU Accessibility Calculator, which is based on the 2005 Accessibility for Ontarians with Disability Act (AODA), which references the 2012 Ontario Building Code (OBC), amended in 2015 to include Section 3.8 Barrier-Free Design, and O. Reg. 191/11 Integrated Accessibility Standards, focused on the barrier-free access path of travel from the parking lot (parking spaces) to the key amenities (elevators, strobe lights, washrooms) within the building. Further to advance the AA, service counters, which were not included in the EDU Accessibility Calculator, were accessed, given that service counters are in the path of travel, and form an integral part of the facility operations. The design of the service counters were accessed for compliance to the design standards prescribed in the Integrated Accessibility Standard (O.Reg 191/11).

Roth IAMS accessibility practitioners used distant measuring gauges and slope meters to confirm compliance to the prescribed barrier-free accessibility design. Where the path of travel or the amenity was analyzed non-compliant to the design standard a cost estimated to address the potential barrier was provided.

A separate report was prepared for each facility. However, to help TCDSB manage their funding for the recommended improvements, the barrier-free accessibility improvement estimated costs were summarized by facility on a spreadsheet (separate document).



4 METHODOLOGY & GENERAL APPROACH

4.1 METHODOLOGY

The potential accessibility barriers assessed were referenced to the specifications prescribed in the OBC Section 3.8, and O. Reg. 191/11. Part IV.1. The assessed building elements were evaluated visually and/or with measuring devices such as a conventional/digital measuring tape, digital slope-meter, etc.

A high-level checklist, configured with the prescribed specifications/regulations, was used to capture the conformance of the building elements. The results gathered from the checklist form the basis of the data input into the EDU Accessibility Calculator. The EDU Accessibility Calculator is submitted in a separate Excel spreadsheet. Photos that support the checklist data are included in the spreadsheet.

Building elements or a subset of building elements (parameters) that did not meet the regulations or guidelines, were marked as "non-compliant." Also, in some instances, when completing the checklist, it was determined that the building element will need a full replacement or reconstruction in order to be compliant to the OBC or O. Reg. 191/11, further analysis of the building element was concluded. In other words, all the parameters associated with the building element in the checklist were not analyzed.

The provided improvement costs in the EDU Accessibility Calculator are generated by formulas, which were developed by the Ministry. The costs are likely high-level estimates. As such, it is recommended that prior to undertaking the improvement the work be tendered (architect/contractor) and the scope and cost be confirmed.

A PDF copy of the EDU Accessibility Calculator containing the information of St. Thomas Aquinas is provided in **Appendix A**.

4.2 Approach for Pedestrian Entrances

The quantity of the required accessible entrances is based on the quantity of pedestrian entrances. For the purposes of this report, pedestrian entrances are considered as entryways that can be accessed by the general public. Doors to service rooms, emergency exits, and entrances that are protected by an enclosure (fence) and cannot be freely accessed by the public were not considered in the count of pedestrian entrances. However, access doors to enclosed courtyards/playgrounds that were designated as barrier-free were included in the count of pedestrian entrances.

4.3 Approach for Exterior Paths

The objective for exterior path of travel is for a member of the public to access the building from either the parking lot or from the municipal sidewalk. Only exterior walkways that connect a pedestrian entrance to the public walkway or to the parking lot were assessed. Exterior walkways that are located within the site and not connected directly to the public point of access were generally not evaluated.



4.4 APPROACH FOR UNIVERSAL WASHROOMS

A Universal Washroom is a washroom with a single set of plumbing fixtures (lavatories, water closets, and urinals, etc.) designed to provide barrier-free access. The plumbing fixtures within the Universal washroom were only assessed, when the Universal Washroom, based on the dimensions (a minimum width of 1,700mm, a minimum length of 1,700mm, and minimum clear turning diameter of 1,700mm) met the design criteria prescribed in the OBC. Where a washroom did not meet the design dimensions prescribed in the OBC, the washroom was considered as non-complaint. A cost to reconstruct the washroom was provided in the EDU Accessibility Calculator, assuming that the plumbing fixtures would be replaced during the reconstruction.

4.5 APPROACH FOR COMMUNAL WASHROOMS

Washrooms with more than one water closet stall were considered as Communal Washrooms. Communal washrooms within 45 metres of a Universal Washroom, and with less than four communal stalls, were not assessed. Only Communal Washrooms that did not meet the above criteria were assessed - even Communal Washrooms that had no intended barrier-free accessible water closet stall. The AA focused on clear turning diameter, the amenities and fixtures within the intended barrier-free accessible stalls.

4.6 Approach for Service Counters

Although, the EDU Accessibility Calculator did not consider service counters, Roth IAMS advanced the AA to address service counters, given that in TCDSB facilities service counters form an integral part of public accommodation (the service counter in the main office is frequently used by students or visitors to inquire and receive administrative services). The design criteria prescribed in Integrated Accessibility Standards (O. Reg. 191/11) was used to analyze compliance.



5 LIMITING CONDITIONS

This report has been prepared for the exclusive and sole use of the Toronto Catholic District School Board (TCDSB). The report may not be relied upon by any other person or entity without the express written consent of Roth IAMS Ltd. (Roth IAMS).

Any reliance on this report by a third party, any decisions that a third party makes based on this report, or any use at all of this report by a third party is the responsibility of such third parties. Roth IAMS accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made, or actions taken, based on this report.

No legal surveys, soil tests, environmental assessments, geotechnical assessments, seismic assessments, detailed engineering calculations, or quantity surveying compilations have been made. No responsibility, therefore, is assumed concerning these matters. No responsibility is held for the impact of design or construction defects as part of these services, whether or not described in this report. No guarantee or warranty expressed or implied, with respect to the property, building components, building systems, property systems, or any other physical aspect of the property is made.

The recommended improvement costs are opinions of probable costs (OPCs) intended for global budgeting purposes only. The OPCs associated with the recommendations, as presented in this report, are based on walk-through non-invasive observations of the parts of the building, which were readily accessible during our visual review. The scope of work and the actual costs of the work recommended can only be determined after a detailed examination of the site element in question, understanding of the site restrictions, understanding of the effects on the ongoing operations of the site/building, definition of the construction schedule, and preparation of tender documents. Hence it is recommended that prior to undertaking the improvement, the services of an architect/contractor be retained to confirm the cost provided.

We expressly waive any responsibilities for the effects of any action taken as a result of these endeavors unless we are specifically advised of prior to, and participate in the action, at which time, our responsibility will be negated.

Conditions may exist that are not as per the general condition of the system being observed and reported in this report.



APPENDIX A Ontario Ministry of Education Accessibility Calculator



Accessibility Calculator - Part 1

Accessibility Calculator Part 1 of 2

District School Board Name	40-Toronto Catholic DSB
Facility Name	St. Thomas Aquinas
Building ID	4503
Number of Storeys	3
Split Levels (Y/N)	Υ
Programming on non-principal level	Υ
Can the programming be moved	N
Total GFA m ²	6.160

Accessibility Su	Accessibility Summary				
1. Parking	\$7,000				
2. Barrier Free Path - Exterior	\$21,000				
3. Barrier Free Path - Interior	\$924,000				
4. Fire Alarm	\$241,472				
5. Washroom - Universal	\$105,000				
6. Washroom - Regular	\$131,600				
Estimated Total Cost (2022)	\$1,430,072				

1. Requirement - Parking

Reg	Section	Section Name	Description
IAS (O. Reg. 191/11)	80.34	Types of accessible parking spaces	Type A, a wider parking space which has a minimum width of 3,400 mm and signage that identifies the space as "van accessible". Type B, a standard parking space which has a minimum width of 2,400 mm.
IAS (O. Reg. 191/11)	80.35	Access aisles	Space between parking spaces that allows persons with disabilities to get in and out of their vehicles. Access aisles may be shared by two parking spaces. 1. They must have a minimum width of 1,500 mm. 2. They must extend the full length of the parking space. 3. They must be marked with high tonal contrast diagonal lines.
IAS (O. Reg. 191/11)	80.36	Minimum number and type of accessible parking spaces	1 to 12 parking space = 1 type A spot 13 to 100 parking spaces = 4% dedicated for persons with disability (split between type A and B) - if even, 1/2 A and B - if odd, 1/2 and extra odd is B 101 to 200 = 1 + 3% 201 to 1000 = 2 + 2% 1000 = 11 + 1%

Category	Questions		Unit Cost (100 per m2)	INPUT - AVAILABLE SPOTS	Code Requirement	Cost
Parking	1	Total existing parking spots available (including A&B)	N/A	70	3	N/A
	2	Total existing Type A accessible spots	\$4,200	1	1	\$0
	3	Total existing Type B accessible spots	\$3,500	0	2	\$7,000
					Total	\$7,000

2. Requirement - Exterior - Barrier Free Path of Travel

Reg	Section	Section Name	Description
BC (O. Reg. 332/12)	3.8.1.2	Pedestrian Entrances	1 to 3 entrance = 1 barrier free entrance 4 or 5 entrance = 2 barrier free entrances more than 5 = not less than 50% must be barrier free entrances
			One of the barrier-free entrances shall be the principal entrance to the building. Only one doorway required to be barrier free where there are multiple doorways.
			Every barrier-free path of travel shall provide an unobstructed width of at least 1 100 mm for the passage of wheelchairs and illuminated
BC (O. Reg. 332/12)	3.8.1.3	Barrier free path of travel	Every barrier-free path of travel less than 1 600 mm in width shall be provided with an unobstructed space not less than 1800 mm in width and 1800 mm in length located not more than 30 m apart (passing/turn area). Minimum headroom of 1980 mm or a guardrail or other barrier provided.
BC (O. Reg. 332/12)	3.8.2.1	Areas Requiring Barrier Free Path of Travel	Throughout entrance storey, normally occupied floor areas serviced by elevators and parking Does not apply to: (1) service rooms; (2) portions of a floor area that are not at the same level as the entry level, provided amenities and uses provided on any raised or sunken level are accessible on the entry level by means of a barrier-free path of travel
BC (O. Reg. 332/12)	3.8.2.2	Access to Parking Areas	Provide a barrier-free path of travel from barrier-free entrances to parking area.
BC (O. Reg. 332/12)	3.8.3.2	Exterior Walks	Uninterrupted width of not less than 1 100 mm and a gradient not exceeding 1 in 20 (ramp required if gradient exceeds) Level gradient at entrance
BC (O. Reg. 332/12)	3.8.3.3	Doorways and Doors	Every doorway that is located in a barrier-free path of travel shall have a clear width of not less than 860 mm when the door is in the open position
BC (O. Reg. 332/12) 3.8.3.4 Ramps Have a maxi Level area at (1670mm)		Ramps	Have a minimum width of 900 mm between handrails Have a maximum gradient of 1 in 12 Level area at the top and bottom of ramp (1670mm by 1670mm) and at 9m intervals or abrupt changes in direction (1670mm) Curb and guard on both sides of the ramp

Category	Questions		Unit Cost	INPUT - BARRIER FREE PATH	Code Requirement	Cost
Entrance - Exterior	1	Total number of pedestrian entrances (excluding service entrances)	N/A	1	1	N/A
	2	Number of entrances with width > 860 mm? (cost for door/hardware)	\$7,000	1	1	\$0
	3	Number of entrances with door operators	\$21,000	0	1	\$21,000
	4	Ramps: total meters in ramps required to address change in gradient	\$2,100	0	N/A	\$0
	5	Exterior walks: total meters in walk (linked to barrier free path) less than 1,100 width (for required entrances)	\$1,400	0	N/A	\$0



Accessibility Calculator - Part 1

Total \$21,000

3. Requirement - Interior - Barrier Free Path of Travel (principal floor)

Reg	Section	Section Name	Description
BC (O. Reg. 332/12)	3.8.1.3	Barrier free path of travel	Every barrier-free path of travel shall provide an unobstructed width of at least 1 100 mm for the passage of wheelchairs and illuminated Every barrier-free path of travel less than 1 600 mm in width shall be provided with an unobstructed space not less than 1800 mm in width and 1800 mm in length located not more than 30 m apart (passing/turn area). Minimum headroom of 1980 mm or a guardrail or other barrier provided.
BC (O. Reg. 332/12)	3.8.2.1	Areas Requiring Barrier Free Path of Travel	Throughout entrance storey, normally occupied floor areas serviced by elevators and parking Does not apply to: (1) service rooms; (2) portions of a floor area that are not at the same level as the entry level, provided amenities and uses provided on any raised or sunken level are accessible on the entry level by means of a barrier-free path of travel
BC (O. Reg. 332/12)	3.8.3.3	Doorways and Doors	Every doorway that is located in a barrier-free path of travel (as determined in 3.8.2.1) shall have a clear width of not less than 860 mm when the door is in the open position
BC (O. Reg. 332/12)	3.8.3.4	Ramps	Have a minimum width of 900 mm between handrails Have a maximum gradient of 1 in 12 Level area at the top and bottom of ramp (1670mm by 1670mm) and at 9m intervals or abrupt changes in direction (1670mm) Curb and guard on both sides of the ramp
BC (O. Reg. 332/12)	3.5.2.2/ 3.8.3.5	Barrier-free design (elevators)	Passenger elevators shall conform to Appendix E of ASME A17.1 / CSA B44, "Safety Code for Elevators and Escalators". - Automatic verbal (and visual) announcement that announces the floor at which the car has stopped - Handrails on all non-access walls (height of 800 to 920 mm, with space of 35 to 45 mm from wall) - Audible signals shall sound once for the UP direction and twice for the DOWN direction, or shall have verbal annunciators that state the word UP or DOWN. - Raised character and Braille floor designations shall be provided on both jambs of elevator hoistway - Where the area of an elevator makes it difficult for a person using a wheelchair to turn around, a mirror should be provided on the rear wall to allow the user to see the car position indicators and the door opening. - Visual alarm to flash in conjunction with audible alarm. - Buttons with floor designations shall be located a maximum of 1220 mm

Category	Questions		Unit Cost	INPUT - BARRIER FREE PATH	Code Requirement	Cost
Entrance - Interior	1	Number of interior entrances with width < 860 mm? (cost for door and hardware)	\$7,000	42	42	\$294,000
	2	Ramps: total meters in ramps required to address change in gradient	\$1,400	0	0	\$0
	3	Is a compliant elevator present?	Y/N	N	N/A	<- Enter Y/N
	4	Number of floors used for programing (exclude service floors)?	\$210,000	3	N/A	\$630,000
					Total	\$924,000

4. Fire Alarm

Reg	Section	Section Name	Description
BC (O. Reg. 332/12)	3.2.4.19	Alert and Alarm Signal	floor area or part of a floor area where the public may congregate. Shall also be installed in a washroom for public use
BC (O. Reg. 332/12)	3.2.4.22		Smoke alarms should have an audio and visual signalling component - conforming to the requirements in 18.5.3. (Light, Color and Pulse Characteristics) of NFPA 72, "National Fire Alarm and Signaling Code"

Category	Questions		Unit Cost	INPUT FOR FIRE ALARM	Code Requirement	Cost
Fire Alarm	1	Alarm system present with audio and visual component?	\$39.2	N	241,472	\$241,472

5. Requirement - Washroom - Universal

Reg	Section	Section Name	Description	
BC (O. Reg. 332/12)	3.8.2.3	Washrooms required to be barrier-free	Minimum number of universal washroom: 1 universal washroom required in building if 1 to 3 floors, 2 required if 4 to 6 floors, over 6 floor 3 (1 for each 3 floor increment above 6) (if greater than four floors then two are required) Minimum number of water closets: - If 1 to 3 water closets: one must be barrier free, unless universal washroom is 45m away - if 4 to 9 water closets: two must be barrier free - 10 to 16 water closets: three must be barrier free	



Accessibility Calculator - Part 1

BC (O. Reg. 332/12)	3.8.3.12	Universal washroom	- Served by a barrier free path of travel - Have a door that is capable of being locked from the inside and released from the outside in case of emergency - Grab bars and coat hook - Be designed to permit a wheelchair to turn in an open space not less than 1 700 mm in diameter - Door shall be equipped with power door operator - Emergency call system that consists of audible and visual signal devices inside and outside of the washroom activated by a control device inside the washroom
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Category	Questions		Unit Cost	INPUT FOR UNI. WASH.	Code Requirement	Cost
Univ. Washroom	1	Number of floors	N/A	3	N/A	N/A
	2	Number of compliant universal washrooms present?	\$105,000	0	1	\$105,000
					Total	\$105,000

5. Requirement - Washrooms - Repeat per washroom on barrier free storey See tab 2

Comments / References

Comments	Board	
Comments	Assessor	

Title	Reg	Current Version	Reference
Integrated Accessibility Standards	O. Reg. 191/11	01-Jan-13	https://www.ontario.ca/laws/regulation/110191
Ontario Building Code	O. Reg. 332/12	01-Jan-16	https://www.ontario.ca/laws/regulation/120332



Accessibility Calculator Part 2 of 2

District School Board Name 40-Toronto Catholic DSB Facility Name St. Thomas Aquinas Section Name Minimum number of universal washroom: 1 universal washroom required in building if 1 to 3 floors, 2 required if 4 to 6 floors, over 6 floor 3 (1 for each 3 floor increment above 6 BC (O. Reg. 332/12) 3.8.2.3 Washrooms required to be barrier-free If 1 to 3 water closets: one must be barrier free, unless universal washroom is 45m away if 4 to 9 water closets: one must be barrier free - 10 to 16 water closets: two must be barrier free - Have a clear turning space at least 1.500 mm in diameter - Door opening of 860mm, swing outward (unless clear floor area), spring hinge to close automatically BC (O. Reg. 332/12) - Grab bars and Coat hook Equipped with seat located between 430 mm and 485 mm above finished floor In designated barrier free washroom with more than one urinal, at least one urinal should be:
- Wall mounted and not exceeding 430 mm of finished floor or floor mounted (rim with finished floor) BC (O. Reg. 332/12) 3.8.3.10 Urinals Grab bar on each side and controls operable by closed fist - Equipped with faucets that have lever type handles without spring loading or operate automatically

- Have a ninimum 1 370 mm deep floor space to allow for a forward approach, of which a maximum of 500 mm can be located under the lavatory

- Have a clearance beneath the lavatory not less than:

(i) 920 mm wide, (ii) 735 mm high at the front edge, (iii) 685 mm high at a point 205 mm back from the front edge, and BC (O. Reg. 332/12) 3.8.3.11 Lavatories (iv) 350 mm high from a point 300 mm back from the front edge to the wall - Accessible soap/drying station Category Unit Cost Input for Washroom 1 Is universal washroom within 45m (Y/N) 2 Total number of water closets \$7,000 Number of barrier free water closets already N/A present
4 Male washroom (Y/N) 5 Barrier free urinal present? (Y/N)
6 Is a barrier free lavatory present (Y/N)
7 Is a door operator present (Y/N) \$2,100 \$2,100 Category Washroom Questions Unit Cost Input for Washroom 1 Is universal washroom within 45m (Y/N) 2 Total number of water closets \$7,000 Number of barrier free water closets already N/ N/ 5 Barrier free urinal present? (Y/N)
6 Is a barrier free lavatory present (Y/N)
7 Is a door operator present (Y/N) \$2,100 \$2.100 Category Washroom 3 Questions Unit Cost Input for Washroom 1 Is universal washroom within 45m (Y/N) 2 Total number of water closets N/ \$7,000 Number of barrier free water closets already N/ present

Male washroom (Y/N) N/A 5 Barrier free urinal present? (Y/N) 6 Is a barrier free lavatory present (Y/N)
7 Is a door operator present (Y/N) \$2,100 \$21,000 Category Questions Input for Washroom 1 Is universal washroom within 45m (Y/N) N/ Total number of water closets
 Number of barrier free water closets already \$7,000 N/ present 4 Male washroom (Y/N) 5 Barrier free urinal present? (Y/N) N/A \$2,100 6 Is a barrier free lavatory present (Y/N) 7 Is a door operator present (Y/N) \$21,000 Category Input for Wash 1 Is universal washroom within 45m (Y/N) 2 Total number of water closets \$7,000 N/ 4 Male washroom (Y/N) N/A N/A 5 Barrier free urinal present? (Y/N) 6 Is a barrier free lavatory present (Y/N) \$2.100 7 Is a door operator present (Y/N) \$21,000 Category Input for Wash 1 Is universal washroom within 45m (Y/N) \$7,000 2 Total number of water closets Number of barrier free water closets already present N/A 4 Male washroom (Y/N) N/A N/A 5 Barrier free urinal present? (Y/N) 6 Is a barrier free lavatory present (Y/N) \$2.100



\$21,000

7 Is a door operator present (Y/N)