



Executive Summary
City of Thunder Bay Facility
Accessibility Audits 2019

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human—space

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1 Introduction

Human Space, formerly AccessAbility Advantage, was retained by The City of Thunder Bay to conduct accessibility audits of facilities owned and operated by the City.

The intent of the audit is to assess spaces against current legislated barrier-free design standards to aid in the development of the City's Multi-Year Corporate Accessibility Plan. The deliverables of the project will provide prioritized high-level observations and recommendations for deficiencies observed against the chosen standards and legislation.

This summary of the accessibility audits and the individual building report packages are presented separately from the corporate accessibility plan.

2 Project Overview

2.1 Methodology

An auditor is on site for a week at a time to collect data at the identified facilities, and then returns to Toronto to complete the reporting and preparing deliverables for submission.

As part of each assessment, the auditor arrives at the address and signs in with Security or the site contact before conducting the audit. The auditor then conducts visual inspections and takes measurements and quantities for all spaces within the project scope, against the identified assessment criteria.

Measurements for items within the scope of the audit and the evaluation criteria are noted in the checklist. The auditor then creates a report based on the findings and marks up the drawings with high level recommendations to highlight key deficiencies in each space. Further description of the report package is provided in Section 3, Audit Reports.

2.1.1 The Journey Sequence

The typical audit path follows a person's journey sequence into and through a building and will likely include:

- Barrier-free parking spaces, access aisles and signage (provision, design, and quantity);
- Exterior path to accessible entrance (width, slope, surface quality);
- Automatic door openers (provision, design, location, operation);
- Clear width, threshold, hardware, latch side clearances, and vision panels in doors;

- Size and configuration of vestibules;
- Reception desks, waiting areas and fixed queuing;
- Corridor width and surface quality;
- Lighting and glare;
- Elevators (call buttons, controls, cab size, lighting, audible signals, tactile elements);
- Universal washrooms (provision, door, size, toilet, grab bars, lavatory, accessories, lighting, fixtures);
- Rise and run, surface quality, guards, handrails and tactile attention indicators at stairs;
- Slope, surface, width, guards, handrails and provision of ramps;
- Multi-stall washrooms (door, provision of barrier-free stalls, toilet, grab bars, lavatory, accessories, clearances, lighting, fixtures);
- Visual alarm signals;
- Changes in elevation and edge protection;
- Protruding objects;
- Operating controls.

2.2 Evaluation Criteria

2.2.1 Standards

Audits were conducted against the following standards:

- The Design of Public Spaces Standard (DoPS), part of the Integrated Accessibility Standards Regulation of the Accessibility for Ontarians with Disabilities Act (AODA);
- Section 3.8, Barrier-Free Design, of the Ontario Building Code (OBC).

Together, these standards represent the legislated requirements in Ontario and establish a good baseline for accessibility which can be applied consistently across the entire audit portfolio.

Obligation to Remediate

The Ontario Building Code and the Design of Public Spaces Standard each prescribe a minimum level of accessibility for new construction and significant renovations to interior and exterior spaces in the province of Ontario.

It is important to know that there is no obligation under either of these standards to remediate existing spaces or to renovate them to conform with current requirements. At the same time, the City may be required under other obligations, such as its own organizational commitment, other sections of the Integrated Accessibility Standards Regulation, or the Ontario Human Rights Code.

2.3 Scope

The scope of the facility audits was to assess existing municipal facilities against current legislated standards for accessibility in the built environment, identified above.

The facilities identified for the assessment can be found in Appendix A, Building List.

Exemptions

Areas out of scope for the project are:

- Building and spaces not identified in Appendix A;
- Extensive exterior routes;
- Janitorial spaces;
- Mechanical Rooms;
- Electrical Rooms; and
- Any other areas where a barrier-free path of travel is not required by the Ontario Building Code.

2.4 Priorities

2.4.1 Rationale

Priority ratings are assigned to each non-compliance in the checklist and are assigned based on the following rationale.

Priority One

- Safety concerns;
- Significant or total barriers to access.

Priority Two

- Non-compliances which can prevent full participation, enjoyment, or use of a space or services.

Priority Three

- Barriers in infrequently used spaces;
- Non-compliances which do not meet referenced standards by a very small margin.

2.4.2 Application

Detailed Findings

Each entry is assigned a priority level in the excel table, based on the above framework. This assignment is made by the auditor, guided by questions such as:

- To what degree is the item non-compliant? How significant is the barrier?
- Where is the barrier in the journey sequence? Will this barrier impact use of other spaces or services?
- How many people do we anticipate will be affected? How crucial is this to use of the space?
- Is this a safety concern?

Based on this questioning, the following differentiation could take place:

High Priority: There is no elevator;

Lower Priority: The elevator is too small in one dimension, by a small margin.

High Priority: There is no power door operator (PDO) at the building entrance;

Lower Priority: Once inside, there is no PDO at a suite or department.

High Priority: A change in level of 150 mm is not sloped;

Lower Priority: A change in level of 15 mm is not beveled.

High Priority: The door to an accessible washroom at a main lobby is narrow;

Lower Priority: The same clear door width is found at an office suite with low traffic.

High Priority: The central bank of elevators;

Lower Priority: A water fountain.

All safety concerns are assigned a Priority One rating and can include the following scenarios:

- There are no visual fire alarms;
- The path of travel and the vehicular route are on a continuous plane with nothing to distinguish the transition;
- An unprotected drop-off or overhead protrusion impacts the path of travel;
- A steep ramp leads into a vehicular route or stairwell;
- Stairs are slippery, have insecure handrails, or very low guards.

2.4.3 Exclusions

Prioritization does not consider:

- The feasibility of fixing the barrier;
- City of Thunder Bay's facility management planning and priorities;
- The cost of removing the barrier;
- Recent, planned, or potential construction or renovation;
- The variety of users.

2.4.4 Variety of Users

It must be noted that prioritization can not reflect every user's experience. A barrier identified as a low priority in the report could be a significant barrier to an individual user, while a high-priority barrier could be no concern to another.

Examples:

- A person with limited upper body range of motion may prioritize automatic doors or elongated power door operators over the standard circular or square power door operators.
- A person who does not use a mobility device but who relies on audio announcements in an elevator will likely prioritize an annunciator over an elevator cab size which meets current standards.

3 Audit Reports

3.1 Overview

A report is issued for each audit site using the same structure across all locations.

Each report contains three sections: the written report, graphical presentation, and a table of detailed findings. A collection of photographs is also included in the report package.

Each of these sections has a primary intent and presents information in a different format. While these sections can be used independently, they are intended to be read together as each contains audit findings providing a different level of analysis and summary.

3.2 Report Formats

3.2.1 The Building Accessibility Report

The building accessibility report provides a high-level summary of key deficiencies observed on site and recommendations based on the chosen standards. The report does not contain all deficiencies observed on site as this information is prioritized and costed in the Detailed Findings.

Each building accessibility report contains a brief description of the site, including primary function of the facility, main users of the facility, key features per floor, and areas that were not included in the audit.

The report also provides a high-level summary of the overall level of accessibility, identifying key barriers, and further breaks down barriers specific to key areas and facilities within the building.

A costing summary is also included in each report to provide a snapshot view of costs for remediation broken down by priority.

3.2.2 The Graphical Presentation

Key audit findings are presented graphically as annotated floorplans for each building. These drawings were provided by City of Thunder Bay and are assumed to be accurate.

This graphical presentation is consistent across all reports and indicates:

- The location of accessible entrances;
- Where power door operators are required;
- Areas not on a barrier-free path of travel;
- Significant barriers or safety issues.

The accessible path of travel is made up of exterior and interior ramps, vestibules, and interior circulation routes within the public and staff corridors

The graphical presentation of the audit findings can be used to identify at a glance how the barrier-free path extends within the building and services and where bottlenecks (such as a narrow corridor or missing power door operators) exist. Callout boxes containing observations are provided for key items as well.

Each of the identified barriers and non-compliances in the graphical presentation are captured in the detailed findings, however the floorplan does not display every non-compliance identified in the audit and provides a high-level overlook of key items identified in the legend.

The legend is provided in Appendix D.

3.2.3 The Detailed Findings Table

Overall Structure

The detailed findings is a table capturing all non-compliances to the chosen standards observed on site. Each audit site has a standalone Excel report which can be used to extract meaningful information as the City sees fit. Examples are can be found below.

Checklist Components

Location

Each entry is tied to a location. This identifies the area if exterior and floor if interior and a room number or other reference where possible. The identifier information is taken from drawings provided by the City of Thunder Bay or from signage provided at the facility.

Category, Component and Item

These three columns are used to narrow down individual requirements to where they would be applicable. For example, for the provision of a handrail on a ramp, the category would state Interior Ramps and Stairs, the component would state Interior Ramps and the Item would be Handrails – Provision.

Requirements

The evaluation standards, as identified above, are:

- Section 3.8 of the Ontario Building Code (OBC);
- The Design of Public Spaces Standard under the Accessibility for Ontarians with Disabilities Act (DoPS);

A note on compliance

As stated above, there is no obligation under any of these standards to remediate existing spaces.

Observations and Recommendations

Information regarding how an item does not meet the referenced standards is provided under the “Observations” column. High-level suggestions for remediation based on the observed non-compliance and applicable standard and are provided in the “Recommendations” column.

Priority Ranking

Each non-compliance is assigned a priority level, as stated above in Section 2.4, Priorities.

Photograph References

Pictures were taken throughout the audit; file references are provided for some entries, where applicable. All photographs taken on site are available for download as part of the report package.

Manipulating the Checklist

The audit findings presented in the Checklist can be manipulated in several ways using standard Excel techniques:

Filter: Isolate information by room, by floor, by component or any other column heading to answer questions such as:

- What information is available about a specific ramp?
- Where are the narrow doors?

Sort: Sorting entries is another way of isolating information to answer specific questions such as:

- What are the top priority barriers?
- What are the high cost items?

Search: The “search” function can be used to find terms which are not captured in headings, such as “tonal contrast”, “handrails”, or “loading zone”.

3.2.4 Reading Reports Together

The three sections of each buildings’ report – the building accessibility report, the graphical presentation, and the detailed findings – are intended to be understood together; each section presents audit findings with a different level of analysis and detail.

The Building Accessibility Report

The written narrative provides an orientation to the building and provides high-level summaries and analysis of accessibility barriers. It is illustrated by the graphical presentation and summarizes the information from the Detailed Findings.

The Graphical Presentation

The highlighted floor plans illustrate how people might use the building, by identifying the route and quality of the accessible path. Details supporting the assessment of the path are in the Detailed Findings, and the Building Accessibility Report provides further explanation about the features along the path.

The Detailed Findings

The Detailed Findings is the most complex of the report sections and provides the most detail. It captures all the noncompliance’s observed on site and can be used for isolating information or understanding all the factors which go into the analyses of the Building Accessibility Report and the Graphical Presentation.

Appendix A: Facility List

Facility Name	Address	Square Footage
Volunteer Pool	180 Martha Street	21,728
Widnall Pool	820 Minnesota Street	6,200
Current River Arena	425 Grenville Avenue	26,310
Delaney Arena	300 Legion Track Drive	35,100
Grandview Area	300 Madeline Street	23,310
Neebing Arena	1715 Bowlker Road	25,000
Port Arthur Arena	420 Lisgar Street	30,087
Canada Games Complex	420 Winnipeg Avenue	113,022
Current River Community Centre	450 Dewe Avenue	8,050
North McIntyre Community Centre	2051 Government Road	9,100
West Arthur Community Centre	1914 Arthur Street West	8,125
West Thunder Community Centre	915 Edward Street South	15,240
Thunder Bay 55 Plus Centre – Main Building	700 River Street	22,500
Heath Pool	1251 Heath St.	-
City Hall	500 Donald Street East	43,500
Victoriaville Civic Centre	111 Syndicate Avenue S	39,000

Appendix B: Audit Costing Summary

The costing for sites was completed by A.W. Hooker Quantity Surveyors. The process begins with a thorough review of the audit checklist to identify requirements and standards applicable to the project.

For each recommendation in the detailed findings, site photographs referenced in the checklist are reviewed to ensure the scope of work is in line with their costing database and costs are adjusted for any site-specific requirements. Any questions or clarifications would have been reviewed with Human Space to ensure interpretation of the scope of work matches the design intent of the Guidelines.

The estimates assume that the project would be tendered to a prequalified list of bidders with a project specific lump sum contract. Pricing is based on competitive tender results with a minimum of four (preferably six tender submissions) at general contractor and major trade level. Pre-qualification with a restrictive list of contractors or subcontractors may result in a higher tendered cost due to the inherent reduction in competitiveness. Tenders receiving two or less submissions (occasionally three) historically tend to have a much higher risk of an overrun in cost when compared to the budget established in an estimate. Ensuring adequate bonafide bidders is a prerequisite for competitive bidding scenarios, on which the estimate is predicated.

The unit costs provided also assumes The City will execute the work under a stipulated sum form of contract for the entire recommended scope of work. It should be noted that prices could vary if the City elects to conduct the work in smaller packages or by piecemeal.

A.W. Hooker Associates Ltd. (HOOKER) has no control over the cost of labour and materials, the general contractors or any subcontractors' methods of determining prices, or competitive bidding and market conditions. This opinion of probable cost of construction is based on the experience, qualifications, and best judgment of the professional consultant familiar with the construction industry. HOOKER does not warranty that proposals or actual construction costs will not vary from this or subsequent estimates.

List of Exclusions

- Harmonized Sales Tax (HST);
- Development charges;
- Legal fees and expenses;
- Financing or fundraising costs;
- City staff and associated costs;
- Relocation of existing facilities, including furniture and equipment;

- Professional consulting fees and expenses;
- Hazardous material abatement;
- Operational and maintenance costs;
- Significant structural alterations;
- Phased construction premiums;
- Escalation allowance;
- Construction allowance (post contract change orders);
- Building permits;
- Premium time / after hours work.

Costs for all sites audited have been summarized per building, per priority below:

Building	Priority 1	Priority 2	Priority 3	Total
Canada Games Complex	228,385.00	1,029,600.00	127,200.00	\$1,385,185.00
City Hall	334,300.00	543,650.00	901,150.00	\$1,779,100.00
Current River Arena	163,100.00	133,450.00	73,200.00	\$369,750.00
Current River Community Centre	454,000.00	147,800.00	27,350.00	\$629,150.00
Delaney Arena	171,700.00	85,100.00	82,700.00	\$339,500.00
Grandview Arena	295,700.00	122,240.00	32,000.00	\$449,940.00
Heath Pool	307,800.00	42,500.00	4,600.00	\$354,900.00
Neebing Arena	130,300.00	203,100.00	6,400.00	\$339,800.00
North MacIntyre Community Centre	61,000.00	246,750.00	10,200.00	\$317,950.00
Port Arthur Arena	353,000.00	143,975.00	34,000.00	\$530,975.00
Thunder Bay 55 Plus Centre	182,320.00	286,900.00	33,525.00	\$502,745.00
Volunteer Pool	170,050.00	167,000.00	192,700.00	\$529,750.00
West Arthur Community Centre	133,200.00	109,400.00	56,700.00	\$299,300.00
West Thunder Community Centre	90,500.00	343,225.00	76,375.00	\$510,100.00
Widnall Pool	197,450.00	156,700.00	1,650.00	\$355,800.00
	\$3,272,805.00	\$3,761,390.00	\$1,659,750.00	\$8,693,945.00

Recommendations not captured in the costs above are identified in each building's report package as "further investigation required" or "captured in another entry".

Appendix C: Glossary of Terms

The following are some terms which are used frequently in the report.

Term Used	Definition
Access Aisle	A horizontal allocation of space usually marked with diagonal painted lines, adjacent to the accessible parking space, separating it from the next stall or obstruction. The space is intended to provide additional clear space to enter and exit the vehicle, possibly using a lift.
Accessible Parking Space	A parking space with the International Symbol of Access painted on the surface, wider than other spaces, and typically with a mounted sign stating, “No Parking, Permit Only”.
Barrier-Free Entrance	An entrance that meets defined minimum requirements, intended to provide access to persons with disabilities into a building.
Clear Floor Space	An area clear of any obstructions usually provided at reception counters, for accessible seating spaces at waiting areas.
Clear Level Space (Door)	<p>The horizontal space at a door that includes the door width and the width of the latch side clearance, multiplied by the depth of level space in front of the door.</p> <p>More depth of space is required on the pull side of a door than the push side to allow room for the person opening the door towards them.</p>
Clear Turning Circle	<p>A horizontal circle with a minimum diameter, clear of any obstructions, where a person using a mobility device can attempt to turn around 360 degrees.</p> <p>The minimum dimension varies depending on the location of the turning circle.</p>
Clear Width (Door)	The width between the edge of the open face of the door to the latch side of the door frame.
Clear Width (Path)	The width between the walls of a corridor or between fixed obstructions.
Curb (Depressed)	A continuous length of curb that is level with the sidewalk or exterior path of travel and provides a larger area of access from the vehicular route to the exterior path of travel than that provided by a curb cut or ramp. Also, sometimes described as a “drop curb”.

Term Used	Definition
Curb (Ramp or Cut)	<p>A defined access point with a smooth transition between small level changes, usually from the vehicular route to the pedestrian path or exterior path of travel.</p> <p>Also, sometimes called a “curb cut”.</p>
Drop off/ Pick up Area	<p>A designated area for the drop-off and pick-up of passengers at the facility. Usually marked with signage and provided near the entrance.</p>
Guard	<p>A vertical barrier installed along a drop-off adjacent to a path of travel, or on both sides of a ramp, to prevent users from possibly falling off an elevated path of travel.</p>
International Symbol of Access (ISA)	<p>An internationally recognized symbol used to identify accessible or barrier-free items or facilities, represented by a stylized wheelchair user on a plain background, usually white on blue.</p>
Knee Clearance	<p>The volume of space under a service counter or lavatory that is required to be clear of any obstructions to allow for a forward approach by someone using a mobility device.</p>
Landing	<p>A level area at the top and bottom of ramps and every 9 metres along a ramp and at changes of direction.</p> <p>Landings are also required at the top and bottom of stairs and at changes of direction.</p>
Latch Side Clearance	<p>The unobstructed and level maneuvering space at a door that extends beyond the width of the door on the latch side. The “latch side” of a door is opposite the “hinge side” and it’s where the hardware is usually located.</p>
Path of Travel	<p>A pedestrian path such as a sidewalk, paved surface, or any smooth exterior surface that leads to an accessible entrance from the accessible parking space.</p>
Power Door Operator (PDO)	<p>A device that enables the automatic opening of a door via the activation of a proximity sensor or use of a button (known as the actuator).</p>
Pull and Push Side	<p>Pull: The side of a swing door that requires a person to pull open the door towards themselves.</p> <p>Push: The side of a swing door that requires a person to push open a door away from themselves</p>
Rise and Run	<p>Rise: The height of a step measured from the leading edge of the step to the surface of the step below.</p>

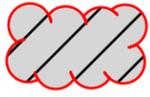
Term Used	Definition
	Run: The horizontal surface where the foot is applied, measured from the leading edge to the back depth.
Slope (Running)	The slope along a vertical incline, in the direction of travel, on a sloped walk, ramp, curb ramp, or depressed curb.
Slope (Cross)	<p>The slope along a vertical incline measured perpendicular to the path of travel.</p> <p>Some cross-slope is required in exterior applications for drainage.</p>
Tactile Attention Indicator (TAI)	<p>Raised tactile domes arranged in an organized pattern that alert users, especially persons with low or no vision, of an upcoming hazard. TAIs must be installed at the top of stairs, at curb ramps, and at depressed curbs and are often a bright yellow colour.</p> <p>In some applications, TAIs are also called Tactile Walking Surface Indicators (TWSIs).</p>
Transfer Space	The horizontal area clear of any obstructions or objects located directly adjacent to the water closet, to allow a person to position their mobility device immediately next to the toilet to safely move onto (transfer to) the toilet.

Appendix D: Graphical Presentation Legend

City of Thunder Bay

Graphical Presentation Legend

Accessibility Mark up Legend	
Symbol	Description
General	
	Accessible Entrances
	Power door operator required
Doors that require an 860 mm door clear width	
	Clear width of door < 860 mm

Accessible Paths of Travel & Facilities Legend	
Colour & Pattern	Description
Interior Circulation	
	Not on a barrier-free path of travel

Callouts	
Item	Key Components that are called out when non-compliant
Universal Washroom	Size of universal washroom is too small
Multi-stall Washroom	# of Accessible stalls; and Size of accessible stall
Circulation	Protrusions/overhead obstructions; Change in level that is not accessible; and Narrow paths;
Visual Fire Alarms	Visual fire alarm system not provided
Elevator	Elevator not provided



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