

Improving Accessibility in Construction Zones

Date: June 27, 2022

To: Executive Committee

From: General Manager, Transportation Services, Chief Engineer and Executive Director, Engineering and Construction Services and General Manager, Toronto Water

Wards: All

SUMMARY

Construction in the public right-of-way has significant impacts on the experience of pedestrians and people with disabilities are disproportionately impacted by obstruction of sidewalks, pedestrian crossings and unclear routes through construction areas. Feedback from people with disabilities demonstrates barriers to mobility are frequently found in areas with construction activities. The Executive Committee requested this Report on the tools and strategies the City currently uses to ensure accessibility in the public realm surrounding private development as well as capital City projects.

The Accessibility for Ontarians with Disabilities Act (AODA) legislates that accessible routes must be provided when sidewalks are disrupted; this is the responsibility of all constructors in the City and is reiterated in construction contracts and Street Occupation Permits. Other standards and guidelines at the provincial and city level, provide further detail about how AODA requirements can and must be met in construction zones.

A permit from Transportation Services must be obtained by any constructor that plans to disrupt the public right-of-way, whether the work is on behalf of the City, Metrolinx, utility companies or private developers. A Traffic Control Plan is required with permit applications and must be approved prior to start of construction. Methods of permit oversight and enforcement vary, depending on type of construction. It is not possible to proactively inspect every project but the City has and will continue to take measures to improve the quality and consistency of outcomes for pedestrians with disabilities.

A range of improvement measures have been undertaken in recent months. For example, Engineering & Construction Services which delivers most of the municipal capital works within the municipal right-of-way on behalf of other City Divisions and the TTC has recently provided training to nearly 250 staff including inspectors, engineers, project managers, is undertaken independent site audits and enhancing project-specific contract requirements for accessibility.

Work planned for the coming months by ECS, Transportation Services and Toronto Water includes further training, review and updating of standards and guidelines, consultation with stakeholders in the construction industry, and community surveys of people with disabilities to gain deeper understanding of barriers.

RECOMMENDATIONS

The General Manager, Transportation Services, Chief Engineer & Executive Director, Engineering & Construction Services, and General Manager, Toronto Water recommend that:

1. Executive Committee receive this report for information.

FINANCIAL IMPACT

There are no financial implications resulting from the recommendation included in this report.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

Executive Committee, at its meeting of March 30, 2022, directed that the City Manager, in consultation with relevant City Divisions, report to the May 4, 2022 meeting of the Executive Committee and the May 5, 2022 meeting of the Toronto Accessibility Advisory Committee on the tools and strategies the City currently uses to ensure accessibility in the public realm.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.EX31.17>

City Council, at its meeting of November 9, 10, and 12, 2021, adopted the updated Toronto Accessibility Design Guidelines and directed all City Divisions to use these Guidelines as the mandatory accessibility resource that guides all City public spaces.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.GL26.10>

City Council, at its meeting of November 25, 2020, adopted the MoveTO 2021-25 Congestion Management Interim Action Plan, which expanded the Construction Hub pilot program from the Yonge and Eglinton area to include additional Hub locations downtown, along the central waterfront, and in the East Harbour Area.

<https://www.toronto.ca/legdocs/mmis/2020/ie/bgrd/backgroundfile-157804.pdf>

Toronto Accessibility Advisory Committee, at its meeting of April 19, 2018, received a presentation on Accessibility at Construction Sites and requested the General Manager, Transportation Services to review the comments and recommendations in the submission from Walk Toronto, Steering Committee and report to the Committee in the first quarter of 2019 on the feasibility of implementing the recommendations.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.DI19.6>

COMMENTS

Toronto is experiencing a construction boom with more private development tower cranes in operation than any other city in North America. Over the next 10 years, the City's Capital Program will invest over \$20 billion in upgrades and repairs. Further tens of billions of dollars from Metrolinx will expand transit across the City in the next decade. This volume and concentration of construction activity is unavoidable, but is also disruptive for Toronto's residents, business operators, commuters and visitors.

While concerns about vehicle traffic delays are common, disruption and obstruction of sidewalks and pedestrian crossings at intersections have a disproportionate impact on different equity-deserving communities, including people with disabilities. Longer-term construction projects are especially challenging due to their scale and duration, but also due to changes in configuration of pedestrian routes as projects evolve through different phases. This challenge isn't only about the number of people impacted, but also the scale of personal impact on each individual whose safety may become compromised or who finds they are unable to independently access their work, essential services and other destinations as a result of an obstructed, or unexpectedly modified pedestrian path.

These concerns were highlighted in a letter from Toronto's Accessibility Committee to the Executive Committee, which was considered at their February 22, 2022 meeting. In response, the Executive Committee directed the City Manager, in consultation with relevant City Divisions to report to the May 4, 2022 meeting of the Executive Committee and the May 5, 2022 meeting of the Toronto Accessibility Advisory Committee (TAAC) on the tools and strategies the City currently use to ensure accessibility in the public realm surrounding private development as well as capital City projects including:

- a. access to sidewalks, or where not possible, adequate pathways;
- b. existing guidelines for access/egress standards;
- c. ramps, signage, and wayfinding for pedestrians; and
- d. enforcement protocol and associated fines, if any, for non-compliance.

This report is in response to this request and, as directed, the material contained herein was presented to the TAAC by the General Manager, Transportation Services and the Chief Engineer and Executive Director, Engineering & Construction Services, at their meeting of June 13, 2022. This report also highlights a range of actions undertaken since the February 22 meeting, and further actions planned for the coming months which will improve outcomes for pedestrians with disabilities. (See "Current and Proposed Improvements".)

Ensuring accessibility within the municipal right-of-way is a shared responsibility. At a given site, this includes the contractor; Transportation Services which issues and enforces the Street Occupation Permit; the City Divisions (Engineering and Construction Services, Transportation Services and Toronto Water) which manage the contract; and utilities, agencies (e.g. Metrolinx) and private developers overseeing their respective contractors.

There are standards and processes in place to ensure accessibility; however, feedback from people with disabilities makes it clear that barriers continue to be present in areas with construction activities. Improvement measures undertaken in recent months include education, inspections, and coordination between sites. Work planned for the coming months by ECS, Transportation Services and Toronto Water includes further training, review and updating of standards and guidelines, consultation with stakeholders in the construction industry, and community surveys of people with disabilities to gain deeper understanding of barriers. The detailed list of current and proposed improvements is included at the end of this report.

Types of Construction in Toronto

Construction projects impacting the public right-of-way in Toronto can be broken into three categories, broadly defined by the type of organization leading them.

- **City-Led Construction Projects** - These are projects led by various City Divisions including Engineering & Construction Services, Toronto Water, and Transportation Services. Some of these are major undertakings lasting weeks or months; others are relatively small and localized maintenance and/or repair projects which may be pre-planned or delivered on an emergency basis, and which require a few hours to a few days. Some of the smaller projects are undertaken by City staff but most projects - both large and small - are done by contractors overseen either by City staff or hired consultants.
- **Third-Party Construction Projects** - These are projects led by external agencies - primarily Metrolinx and utility companies such as Toronto Hydro, Enbridge Gas, and telecommunications providers. Similar to City projects, these directly impact the right-of-way, can be short or long in duration and work is primarily completed by contractors hired by each agency. Utility work includes both excavations and access via existing infrastructure (e.g. utility holes, utility cabinets, utility poles, aerial installation, etc.).
- **Private Sector Development** - These are projects delivered by private sector developers and their contractors with projects that can be under construction for several years. While the construction occurs on private property, site constraints frequently require longer term access for temporary use of portions of the sidewalk or street for various construction activities.

What these three groups of projects all have in common is that they require the contractor to apply for a Street Occupation Permit or Cut Permit, from Transportation Services, prior to work commencing. The permit applications must include a Traffic Management Plan that conforms to specific regulations and standards, described below.

Regulations and Standards

There are seven guiding documents that outline applicable regulations, standards, and guidelines related to construction projects. Two of these are specific to accessibility for people with disabilities; the other five address a range of construction considerations,

including how accessibility applies to construction zones and what is expected for providing safe and consistent travel in a work zone for all pedestrians. Three of these documents - the Accessibility for Ontarians with Disabilities Act, and Books 7 and 15 of the Ontario Traffic Manual - are mandated by the Province. The remaining four are specific to the City of Toronto and are: Chapter 743 of the Toronto Municipal Code, the Toronto Accessibility Design Guidelines, the Toronto Standard for Construction Specification for Maintenance of Traffic (TS1.00), which is part of the broader Standards for Designing and Constructing City Infrastructure and finally, the Municipal Consent Requirement which is the guideline document and standard for utility work. A list of the applicable regulations, standards, and guidelines from these seven sources is included in Attachment 1, and a brief overview of each is provided below.

These standards are referenced in tender and contract documents during the procurement of contractors by the City as well as in requirements for the Street Occupation Permits. The AODA requirements would equally apply to Metrolinx projects. Information sessions on the permit process and construction expectations is provided by Transportation Services to utility contractors at the start of each construction season which reiterates the importance of adherence to traffic control plans.

Accessibility for Ontarians with Disabilities Act (AODA)

The AODA and O.Reg 191/11: Integrated Accessibility Standards establishes accessibility standards across a variety of areas. With respect to transportation and design of public spaces, the AODA outlines minimum accessibility requirements for all exterior paths of travel, including sidewalks and protected walkways. In 2016, the Province passed O.Reg 191/11 Integrated Accessibility Standards which prescribe a number of specifications regarding pathways and ramps, providing precise details for items such as maximum allowable slopes, width of clearway, design of handrails and cane-detectable leading edges. Exceptions to the requirements can be applied when constraints are present.

Ontario Traffic Manual - Book 7 (Temporary Conditions) and Book 15 (Pedestrian Crossing Conditions)

The Ontario Traffic Manual (OTM) provides information and guidance for transportation practitioners and to promote uniformity of treatment in the design, application and operation of traffic control devices and systems across Ontario. Although these books are described as guidelines, they are the accepted standards to be used universally across Ontario and are referenced as requirements in the City's Standards for Designing and Constructing City Infrastructure.

Book 7 of the OTM addresses Temporary Conditions such as those in construction zones. It provides guidance to municipalities and contractors on how to manage planning and implementation of work zones and addresses a large array of temporary conditions; however, the OTM is designed to inform good judgment and not to be a substitute for assessing each situation and its uniqueness. Book 7 is based on six fundamental principles: i) worker safety; ii) road user safety; iii) communication and positive guidance; iv) consistency and uniformity; v) constructability, and vi) mobility and accessibility.

The principles of mobility and accessibility focus on creating as little disruption as possible for road users from construction, highlighting the importance of considering pedestrians and cyclists. Book 7 relies on the requirements outlined in the AODA Integrated Accessibility Standards for pedestrian safety, such as sidewalk width, surface materials, and ramp slope.

Book 15 of the OTM provides guidance on pedestrian crossings at road intersections (it does not address intersections with driveways.) Book 15 identifies that, “Road users’ range of abilities varies with respect to mobility, vision, hearing, and cognition. The ability of individuals...shall not preclude them from the right to use any facilities including pedestrian crossings. Provision of pedestrian facilities must therefore address the range of capabilities exhibited by the individuals that might use them.”

Book 15 further identifies that, “A barrier-free environment means the elimination of physical or information barriers.” Examples of barriers include curbs, obstacles, and the absence of tactile or audible cues for crossing.

City of Toronto Regulations and Guidelines

Municipal rules governing work within the municipal-right-of-way and temporary occupations for construction activities are outlined in the Toronto Municipal Code, Chapter 743: Streets and Sidewalks, Use Of. Standards for this work include accessibility requirements that are governed by the Provincial regulations and guidelines described above. The City has developed its own documentation to provide further clarity and emphasis. The Council-approved Toronto Accessibility Design Guidelines provide direction for accessible and universal design in a diversity of settings including for construction site protection; requirements are at or above the minimum that is required by the AODA. Additional guidance for construction activities are included Toronto Standard (TS) 1.00 - Construction Specification for Maintenance of Traffic. TS1.00 reiterates the guidelines of OTM Book 7 but incorporates the enhanced accessibility expectations from the Toronto Accessibility Design Guidelines. Although these are called guidelines, Street Occupation Permits issued by Transportation Services, specifically require adherence to them. Municipal Consent Requirements apply to utility work being undertaken under a Street Occupation Permit or Cut Permit. They give direction for both temporary and completed-project conditions for utility work, including both construction work and activity at existing access points (e.g. utility holes, overhead wires, etc.)

Further details on each of these regulations and standards are included in Attachment 1.

None of these documents is fully prescriptive; each must be applied with some flexibility and good judgement, considering the nature of the project and local site constraints. For example, the manner in which a safe and fully accessible path of travel would be provided on a wide suburban arterial road will be different from the same need on a downtown street with cycling infrastructure or streetcar tracks.

Degree of City Oversight

Permits

This report previously described that constructors in all three types of projects must obtain a Street Occupation Permit (SOP) or, for utility work only, a Cut Permit, prior to commencing work. The application for a Permit from Transportation Services requires submission of detailed site plans and a clear proposal of what is being requested, including how the public right-of-way is to be used, and the expected duration of the street closure or occupation. A Traffic Control Plan (TCP) is required which adheres to the AODA and other standards previously described. The TCP must identify how pedestrian and vehicular movement will be accommodated with the proposed street occupation. Alternative routes for pedestrians must ensure a safe, continuous and well-marked route for all users including people using mobility devices, with vision impairment, or other disabilities.

Permits are issued with the Special Condition that requires participation in a pre-construction meeting with Work Zone Coordinators (WZCs) from Transportation Services to discuss the work and review the TCP. The WZCs may request TCP modifications in cases where the original plan did not meet City standards. TCP approval follows the pre-construction meeting and must be completed prior to start of work.

Overseeing Permits

The method of oversight of compliance with the Permits differs, depending on the type of organization leading each project. Engineering & Construction Services (ECS) delivers larger municipal capital projects on behalf of Transportation Services, Toronto Water and the TTC. These projects are typically completed in-year. During construction, each project is staffed with one or more inspectors on-site throughout the project. Part of the inspector's role is to ensure compliance with the approved Traffic Control Plan. Projects led by Metrolinx are typically larger scale, and many years in duration, and Metrolinx hires their own inspectors who are on site daily. Spot inspections are also conducted by Transportation Services for permit and TCP compliance. These inspectors work with the City's Work Zone Coordinators to ensure compliance with the Traffic Management Plan.

It is not uncommon for Traffic Control Plans to require some adjustment when they move from plan to implementation. Work Zone Coordinators liaise with the contractor's site manager to correct any problems as they arise. Longer term projects may be delivered in phases which require the public right-of-way to be used in a variety of ways. A Traffic Control Plan for each phase is submitted at the time of permit application and must be reviewed and approved by the WZCs prior to proceeding with each phase.

Construction activities undertaken by City staff crews are typically small-scale projects of short duration. Permits are issued even for these internal groups and City staff are expected to observe the same standards for ensuring accessible paths of travel as their counterparts doing contracted work.

The City recently created a program of Construction Hubs, identifying areas of the City with particularly high concentrations of construction activity (typically a combination of

both public works and private developments adjacent to the right-of-way, many of which take three or more years to complete). Construction Hub Coordinators responsible for each hub become the main channel of communication to the project leads and developers for all construction activities taking place in the immediate area. The Hub program provides increased staffing levels to provide higher level of review and audit. It is a collaborative and mutually beneficial relationship between the Hub Coordinators and the project leads or developers because the one point of contact within the City can facilitate progress, improve communication and take a proactive role in scheduling for major disruptive activities - such as large scale concrete pours - so that not all projects are impacting the surrounding area in the same way simultaneously. The Hub Coordinators also motivate the project leads or developers to respond quickly to requests from for improvements to how traffic control plans are being implemented. Another major role of the Hub Coordinators is to field comments and issues from the adjacent community. They help to identify and quickly address construction related impacts so that community impacts are lessened to the extent possible. A summary of the degree of city oversight for each of the different project types is included in Attachment 2.

Enforcement

Inspection and enforcement of conditions of the Street Occupation Permits is done by Transportation Standards Officers (TSOs) employed by Transportation Services. This enforcement is focused on activities by third parties, such as developers, contractors and utilities. TSOs conduct inspections and respond to complaints that originate from a variety of sources including 311 calls, other City staff and Councillor's offices. Where conditions allow, TSOs may also conduct proactive patrols of the right-of-way at locations where permits have been issued, although this has become more difficult to accomplish in recent months where the volume of construction projects has expanded significantly. It is not possible to proactively inspect every project, particularly those which last only a few hours.

TSO enforcement is focused on the safety and condition of the right-of-way to ensure passersby are not in danger and that their path is unobstructed. TSOs also inspect work sites for compliance with permits and plans and to ensure that no unpermitted activities (such as blockages or encroachments) are being undertaken. Work conducted by utilities such as Toronto Hydro and Enbridge is spot inspected. Private development that impacts the right-of-way is enforced through periodic inspections by TSOs and complaint response. City staff also work with Metrolinx on Street Occupation Permits for the large provincially led transit expansion projects, and enforce permit conditions in a similar manner with traffic control plan review and periodic site visits.

Levels of Enforcement

Enforcement by TSOs starts with educating constructors on how to achieve compliance. This is considered a verbal warning. The TSOs have discretion in moving to a formal Notice of Violation, depending on the nature of the infraction(s) and responsiveness of the constructor. Proceeding under Part 1 of the Provincial Offences Act (POA) includes issuing an Offence Notice commonly referred to as a ticket, which carries a set fine.

TSOs also have discretion in escalating the enforcement process to a Notice of Violation based on the nature of the infractions and other relevant factors. Escalation could proceed with:

- Part 1 Offence Notice in the form of a ticket
- Part 1 Summons
- Part 3 Summons Form 106
- Part 3 Snap Summons Form 104

Stop work orders can be issued on site but are only used when there is a situation that poses an immediate safety issue to the public, such as a lack of overhead protection while materials are being lifted, or in the case of severe damage to the street.

Municipalities apply to the Chief Justice of the Ontario Court of Justice for the establishment of set fine amounts. Current set fines range from \$200 for Failure to Ensure Safe Passage, Obstruct/Encumber/Foul Street or Water Across Street; to \$500 for Failure to Comply with Permit. Where TSOs choose to proceed under Part 3 of the POA, set fines no longer apply and the maximum penalty can reach \$5,000.

Factors that Impact Accessibility and Accessibility Solutions

This report has described that flexibility, site-specific knowledge and good judgement are required to determine how best to follow the standards and guidelines for each specific project. This need and capability for flexibility is influenced by a variety of factors which can impact the manner in which required accessibility standards are achieved.

Characteristics of Construction Zones

Each construction zone will have its own unique characteristics depending on the design of the road and existing types of travel it accommodates, the types of adjacent properties, proximity to intersections and typical travel speeds. Understanding the characteristics of the work zone will influence high-level decisions about the Traffic Control Plan. For example, will pedestrians be directed to only one side of the road or will a curb-lane be reallocated for pedestrian use? Plans are designed to minimize restrictions on movement and encourage replicating the existing space to the extent possible. If a road includes streetcars, motor vehicles, a separated bike lane and a sidewalk, the Traffic Control Plan should strive to provide space for all of these mobility types. Where space is limited, vulnerable road users have highest priority, starting with pedestrians and followed by cyclists.

Duration and Scope of Project

For obvious reasons, long-term projects that extend over large areas have a greater impact on pedestrians with disabilities than smaller projects - although both can impact mobility. Long-duration projects may have multiple phases that require changes to how mobility adjacent to the work zone is managed. Efforts are made to minimize the number of changes over the course of the project in order to improve consistency and predictability for pedestrians. Projects that occupy a long portion of a corridor must

consider how access to businesses and services are impacted, with alternative accessible routes being provided.

Nature of the Construction

Each project can be unique in the type of work to be conducted and how this impacts the public realm, starting with whether it is planned work or an emergency repair, and on the surface (e.g. sidewalk replacement) or below surface (e.g. watermain replacement). Some projects have a limited, static scope of impact (e.g. a condo construction) while others are very dynamic with project phases sequenced along a corridor. It makes sense to undertake some projects together (for example watermain and/or sewer upgrades in conjunction with road reconstruction and/or streetcar track replacement), but this can add uncertainty and delays, and requires greater communication and coordination among project leads and contractors.

Environmental Factors

Accessibility can be impacted by environmental factors including time of day, amount of light, local topography and rain, snow or ice accumulation. These influence the type of materials chosen to create alternative pedestrian routes as well as features such as presence of traffic control personnel on site.

Interpretation and Implementation of Standards and Guidelines

The unique nature of each project means that contractors must use good judgement to determine which standard traffic controls are most appropriate for a particular work zone. Persons assuming contractor and constructor responsibility ultimately have responsibility for the specific safety elements on site; nevertheless, they must submit a Traffic Control Plan to the City that meets all applicable standards and guidelines. Some challenges arise from differences between how the contractor manages the project on site compared to what City staff intended in discussions regarding the TCP. The significant volume of projects currently under construction coupled with limited staff resources makes it increasingly difficult to oversee all sites as frequently as needed, even when a TCP is compliant with all regulations and guidelines.

CURRENT AND PROPOSED IMPROVEMENTS

Despite the clear documentation of standards for accessibility in Traffic Control Plans, it is recognized that there is room for improvement in how consistently and thoroughly the accessibility requirements are adhered to across all types of construction. Noticeable improvement will require a collaborative effort by many City Divisions as well as the City's contractors and other organizations whose construction work impacts the public right-of-way. A range of measures has been identified which will contribute to this effort. Some are underway or have been completed recently. Others have been raised as options to pursue in the coming months.

Transportation Services

Staff in Transportation Services have identified a number of measures that are either underway or proposed for implementation that could positively impact the preservation of accessibility in construction zones. These include research, community and industry consultation, staff training, and development of educational materials for constructors. The expansion of the Construction Hubs program to areas of intense development and construction in the downtown and waterfront will also support improved accessibility through coordination at a neighbourhood level.

A list of Transportation Services' current and proposed improvements is below:

Research and Consultation

- Undertake community surveys of people with disabilities and supportive community organizations to gain a deeper understanding and first-hand experience of barriers.
- Consult with utilities and private developers to create appropriate measures for site auditing and reporting on compliance as a condition of holding a permit for long-duration activities. Measures could include third-party site audits and/or measures to incentivize self-enforcement by permit holders.
- Outreach to and potential collaboration with industry and trade associations to enhance understanding of requirements and various ways to deliver them in Toronto construction scenarios.

Staff Training & Policy Review

- Enhanced staff training on newest regulations and standards; reminders that the AODA-related items in Book 7 and TS1.00 are mandatory to request and enforce.
- Work with the accessibility community to develop and deliver training for staff, informed by the lived experience of people with disabilities in navigating construction zones in Toronto.
- Establish dedicated enforcement staff with deeper knowledge and training on accessibility; exclusive focus on accessibility will enhance priority of enforcement.
- Review and update the Construction Activities Right-of-Way Manual for staff that operationalizes new regulations and standards.
- Review and update the Municipal Consent Requirements, especially Chapter 7 and Appendices G and N.

Education

- Update content for the annual Utility Cut Permit Program pre-construction season refresher training to include AODA specifications and examples of how they should be delivered with utility construction projects.
- Develop a more detailed guiding checklist that outlines the barriers to be considered for a range of disabilities; distribute with permits and use as a discussion tool during work zone review.
- Undertake a best practices review of other jurisdictions and develop made-in-Toronto scenarios, specifications and case studies on how to enhance accessibility for vulnerable road users in construction areas.

Construction Hubs

- Continue with plans to expand the Construction Hub program and maintain existing hub coordination activity in identified areas of high concentration and complexity. Ensure appropriate staffing to enable enhanced levels of communication, inspections, audits and enforcement in the hub areas.

Engineering & Construction Services

ECS recognizes the importance of this issue has taken the following actions since the Executive Committee meeting on March 30, 2022 when this issue was raised:

- Developed a training module -"Pedestrian Focused Traffic Control Around Construction Sites" - that covers applicable policies and legislation, highlighting AODA, with practical examples for how these are to be applied to construction in the ROW. To date, 248 ECS inspectors, engineers, project managers and surveyors have completed the training.
- Developed enhanced project-specific accessibility requirements for upcoming tenders of six projects on roads with heavy pedestrian traffic.
- Completed site audits of nine ECS projects within the downtown core and ensured contractors rectified any issues.
- Arranged for more site visits by Construction Inspection Manager and Supervisors to support enforcement on more complex projects or where a contractor may not be cooperative.
- ECS and Transportation staff met with the Greater Toronto Sewer and Watermain Contractors Association for industry feedback on how to improve contractor compliance.

In addition to the above actions, ECS is planning the following next steps:

- Undertake a detailed review and update of TS1.00 with input from people with disabilities.
- Provide the "Pedestrian Focused Traffic Control Around Construction Sites" training to an estimated 300 engineering consultant staff, engaged in ECS led construction projects, in July 2022.
- Incorporate into monthly staff meetings among inspectors, real examples of access and accessibility issues.
- Enhance clarity and specificity of access and accessibility language in tender templates to be used for all contracts.
- Review the City's Contractor Performance Evaluation form and Consultant Performance Evaluation form templates, in consultation with PMMD, to ensure adequate focus on pedestrian access.
- Provide communication to Project Managers about the Performance Evaluation forms, highlighting the specific sections that apply to pedestrian access.
- Review the Construction Site Audit Form to ensure adequate focus on pedestrian access, then distribute to Project Managers and Inspection Supervisors to enhance oversight.

Toronto Water

Toronto Water also recognizes the importance of pedestrian safety and accessibility in work zones on construction projects managed by the Division. Given that Toronto Water uses the same construction tender templates as ECS which includes Toronto Standard (TS) 1.00 - Construction Specification for Maintenance of Traffic, enhancements and updates to these documents that will be conducted by ECS will also be reflected in future Toronto Water contracts.

In addition, Toronto Water plans to undertake the following actions by December 2022:

- Conduct a review of existing Special Specifications used in Toronto Water construction contracts with a focus on project-specific requirements for access and accessibility, conduct research on best practices and prepare updates for use in future tender documents
- Provide a Toronto Water version of the ECS "Pedestrian Focused Traffic Control Around Construction Sites" training to City staff and consultant staff involved in planned capital construction within the road Right-of-way.
- Conduct site audits by City Project Managers at six project locations to ensure current contract specifications are being followed by Contract Administrators and Contractors.
- Incorporate pedestrian safety and accessibility issues into pre-construction and regular site meetings.
- Review Contractor Performance Evaluation form and Consultant Performance Evaluation form templates, in consultation with PMMD, to ensure adequate focus on pedestrian access.
- Provide communication to Project Managers about the Performance Evaluation forms, highlighting the specific sections that apply to pedestrian access.

Conclusion and Next Steps

As the City continues to manage rapid growth and upgrading of infrastructure, staff recognize the importance of ensuring accessibility for all pedestrians through work zones. Standards and guidelines are in place; however, more work is planned to engage all stakeholders in the consistent and thorough application of accessibility measures in work zones, regardless of size and scale of the project.

Staff will continue to work with TAAC, community stakeholders and the construction industry to advance means and methods of preserving accessibility in construction zones, in tandem with broader advancement of regulations and guidelines. In this regard, a status update to the Toronto Accessibility Advisory Committee on the improvements outlined above is planned for the third quarter of 2023, following the implementation of the measures summarized above in the 2023 construction season.

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ATTACHMENTS

Attachment 1: List of Regulations, Standards, and Guidelines for Preserving Accessibility in Construction Zones

Attachment 2: Summary of Constructors and City Oversight

Attachment 1: List of Regulations, Standards, and Guidelines for Preserving Accessibility in Construction Zones

*Accessibility for Ontarians with Disabilities Act (AODA) –
O. Reg. 191/11: Integrated Accessibility Standards [July 1, 2016]*

Exterior paths of travel, application

80.21 (1) This Part applies to newly constructed and redeveloped exterior paths of travel that are outdoor sidewalks or walkways designed and constructed for pedestrian travel and are intended to serve a functional purpose and not to provide a recreational experience. O. Reg. 413/12, s. 6.

Exterior paths of travel, technical requirements (80.23)

Exterior paths of travel, ramps (80.24)

Exterior paths of travel, stairs (80.25)

Exterior paths of travel, curb ramps (80.26)

Exterior paths of travel, depressed curbs (80.27)

Exterior paths of travel, accessible pedestrian control signals (80.28)

Exceptions, general

80.31 Exceptions to the requirements that apply to exterior paths of travel are permitted where obligated organizations, other than small organizations, can demonstrate one or more of the following:

It is not practicable to comply with the requirements, or some of them, because existing physical or site constraints prohibit modification or addition of elements, spaces or features, such as where increasing the width of the exterior path would narrow the width of the adjacent highway or locating an accessible pedestrian signal pole within 1,500 mm of the curb edge is not feasible because of existing underground utilities. O. Reg. 413/12, s. 6.

Ontario Traffic Manual – Book 7: Temporary Conditions [April 2022]

Section 2: Temporary Work Zone Planning and Monitoring

Transportation Management Plan (TMP) - used to define and communicate, through a clear, consistent, and structured process, a comprehensive project-specific plan for use by project stakeholders such as local road authorities, contractors, ministry staff, and the general public.

- Traffic Protection Plan
- Traffic Control Plan
- Traffic Operations Plan (optional)
- Public Information Plan (optional)
- Incident Management Plan (optional)

Mobility and Accessibility Principle – “Highway user movement should be inhibited as little as practicable. When this principle is followed, speed changes, and differentials are minimal and traffic progression is maintained, thereby increasing safety. Accessibility and mobility for pedestrians and cyclists is an important consideration.”

Section 3: Temporary Work Zone Design

3.7.1 Pedestrian Safety Considerations

- The pedestrian travel path and pedestrian traffic control are compliant with the AODA:
 - A minimum sidewalk or path width of 1.8 m is preferred in areas where accessibility may become an issue for two wheelchairs passing one another.
 - The needs of visually impaired pedestrians shall also be considered, as a construction site can be challenging to safely and comfortably traverse.
- All AODA path geometry requirements (ramps, slope, etc.) must be met on temporary paths. Accessible ramps must be provided between a closed sidewalk and a diversion route on the roadway.
 - Temporary path material must not cause a hazard to pedestrians using mobility aids or having vision loss.

Section 4: Temporary Traffic Control Devices

4.4.3.4 Temporary Traffic Signals

- Where TTS are used...AODA pedestrian facilities should be maintained during construction.

Ontario Traffic Manual – Book 15: Pedestrian Crossing Treatments (June 2016)

Section 2: Legal Framework

2.1.4 General Accessibility

- “The ability of individuals, however, shall not preclude them from the right to use any facilities including pedestrian crossings. Provision of pedestrian facilities must therefore address the range of capabilities exhibited by the individuals that might use them.”
 - Range of abilities varies with respect to mobility, vision, hearing, and cognition

2.1.6 Designing for Accessibility

- Pedestrian crossings shall provide a continuous, and clear path across the vehicular route. An accessible path must be barrier-free and designed to address a range of capabilities as exhibited by the individuals that might use them.
- A barrier-free environment means the elimination of physical or information barriers. Physical barriers such as curbs, steep slopes or obstacles may restrict movements of pedestrians with mobility impairments; while information barriers such as the lack of tactile or audible cues will limit pedestrians with visual or hearing impairments in their ability to recognize the conditions of the environment.

Toronto Accessibility Design Guidelines (2021)

Section 4: Exterior and Interior Maintenance

4.1.2 Construction Site Protection – Applies to all construction sites and associated equipment including those that are used for a short period of time.

1. Hoarding - Site protection should provide hoarding that:
 - a) Is temporary or permanent;
 - b) Delineates an exterior accessible path of travel from any construction site and vehicular road way;
 - c) Surrounds the perimeter of the construction site;
 - d) Has highly visible and cane detectable barriers (see: Figure 4.1.2-A);
 - e) Where provided, has a minimum of one view port that is located 1050 mm on centre;
 - f) Maintains clear sight-lines to traffic lights and signals; and
 - g) Provide overhead clearance and cane detectability (see: Figure 4.1.2-B).
2. Signage - Site protection should provide signage that is able to withstand all seasonal weather conditions and meets criteria in "3.2.1. Signage and Wayfinding Systems".
3. Maintenance - Site protection should provide maintenance that ensures that material and/or equipment do not impede any path of travel and are located to reduce risk of hazards.

Toronto Municipal Code, Chapter 743: Streets and Sidewalks, Use Of

- Article III: Street Work
 - § 743-26. Issuing permits
 - § 743-29. Commencing and conducting street work and temporary street occupations

Standards for Designing and Constructing City Infrastructure

- Constructing Specifications and Drawings for Road Works
 - T1 – Construction and Material Specifications
 - TS 1.00 – Construction Specifications for Maintenance of Traffic (September 2020)
 - TS1.00.07.06 - *Temporary Sidewalks and Bus Stops*
 - The Contractor shall provide and maintain safe and convenient facilities for pedestrian traffic through the areas under construction. These facilities shall provide for a dry, hard and even surface at all time. Such temporary sidewalks shall have a minimum width of 2.5 m, and consist of a layer of well compacted Granular A placed to a minimum thickness of 100 mm, and a layer of well compacted smooth Superpave 9.5 asphalt surface placed on top to a minimum compacted thickness of 75 mm. A minimum vertical clearance of 2.5 m shall be provided. Wheelchair access shall be maintained at all times. All pedestrian traffic shall be separated from the construction area by means of a temporary site fence or pedestrian control barrier. If the erection of a temporary site fence or

pedestrian control barrier is not feasible, the Contractor shall seek approval from the City to use traffic control barrels (TC 54). The Contractor shall provide sufficient signs to direct pedestrians around all sidewalk detours.

TS1.00.07.11.01 - Traffic Control Plan

- The Contractor shall at its own expense, develop Traffic Control Plans as stipulated in the Ontario Traffic Manual, Book 7 – Temporary Conditions. The Traffic Control Plan will include detours, staging sequences, vehicle access and egress from worksite, temporary barriers, and removal of old pavement markings for complex projects. For minor projects, the Contractor may select the appropriate typical layouts from the Ontario Traffic Manual Book 7.

Municipal Consent Requirement for the Installation of Plant with City of Toronto Streets

- The impact on the physical and social environment is controlled through the establishment of pedestrian and vehicular traffic restrictions, setting out the timing and physical extent of the work, and the strict enforcement of the City's noise and air quality bylaws.
- This document applies to all utility companies, commissions, agencies, boards, associations, municipal departments and private stakeholder applicants proposing to undertake work within city of Toronto streets.
- All sidewalk cuts shall be backfilled or covered with a non-skid surface having sufficient strength to maintain pedestrian traffic and include warning signs for pedestrians
- The Applicant is to provide safe, ample and convenient means of approach and entrance to adjoining lanes, driveways, buildings and property, both for vehicles and pedestrians, wherever necessary, and for passing along all roads and sidewalks, and for crossing the same where it is practicable to do so, both during the execution of the work as well as at other times, and for this purpose must construct and maintain, in good and serviceable condition, suitable and convenient platforms, approaches, structures, bridges, crossings or other works as necessary to maintain access

Attachment 2: Summary of Constructors and City Oversight

Category of Project	Type of Project (Project Lead)	Constructor	Degree of City Oversight
Lead by City of Toronto	Major Capital Projects	Engineering & Construction Services Contractors	Permit issued by TS Contract management On-site ECS inspector
	Some projects by Transportation Services and Toronto Water	City of Toronto staff	Permit issued by TS Spot inspection by TSO
	Some Transportation Projects	Transportation Services Contractors	Permit issued by TS Contract management Spot inspection by TSO
	Some Toronto Water Projects	Toronto Water Contractors	Permit issued by TS Contract management Spot inspection by TSO
Third Party	Agencies, Boards & Commissions	TTC Toronto Parking Authority Toronto District School Board	Permit issued by TS Spot inspection by TSO Complaints based response
	Major Transit Projects including subway extensions; new subway and LRT (Provincial Transit Agencies)	Metrolinx Contractors	Permit issued by TS Spot inspection by TSO
	Utility Projects - Non-Water (Public & Private Utilities)	Utility company forces + Contractors	Permit issued by TS Spot inspection by TSO
Private Development	Development-related work that encroaches on the ROW (Various Public and Private Organizations, TTC station construction)	Developer or TTC + Contractors	Permit issued by TS Spot inspection by TSO