

2026

**CONSTRUCTION AND TRAFFIC
MANAGEMENT MANUAL FOR
DEVELOPMENT SITES**



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The City of Barrie reserves the right to amend, alter or to accept revisions to this Manual at any time without further notice.

Over time, it will be necessary to update this Manual as the regulations, design practices, and technologies continue to evolve and change. It is the user's responsibility to check the City of Barrie's website for the current revision of this Manual.

Summary of Revisions

Revision No.	Approval Date	Description

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1.0 OVERVIEW

The following document is a Manual to assist with the development of a Construction and Traffic Management Report and associated plans. This Manual is intended for those tasked with the planning, coordination, and supervision of construction projects. It provides guidance to encourage exemplary construction site management practices while navigating common construction activities that arise during the construction of new developments.

The City of Barrie is committed to working closely with the development industry and consultants to continually improve these requirements. This Manual provides a framework for carefully managing construction projects, with a focus on mitigation measures to prevent negative impacts to nearby neighbourhoods. The key objective is to ensure that construction activities are carried out safely and effectively while protecting the general public. This Manual does not set out the requirements for workplace health and safety in accordance with the *Occupational Health and Safety Act* (OHSA) and regulations. The Developer shall be responsible to adhere to the Ontario Health & Safety regulations and take every reasonable precaution to ensure the construction project is a safe workplace.

The City of Barrie is shifting towards a new urban form that will transform suburban communities into more vibrant and complete communities. Rapid growth and future development will be largely accommodated in more compact, denser, pedestrian-oriented, mixed-use developments. As the City continues to experience rapid growth, construction challenges associated with more compact and denser developments, particularly in existing built-up areas, can be significant. While construction is essential for creating new communities and revitalizing existing ones, it must be well managed to minimize disruptions to the area residents and businesses and to protect public safety.

Adopting a “good neighbour” approach helps build strong working relationships and dynamic communities. Establishing good construction practices is critical to the overall success of the project. Adhering to these requirements will help ensure that the public’s expectations for the use and enjoyment of their properties are met and that their safety and well-being are maintained. By working closely with the City, the Owner can implement preventative measures and build the trust of the community.

This Manual addresses site management controls related to construction activities that encroach onto public lands and considers relevant aspects of building construction, including potential disruptions, impacts on local amenities, dangers or risks involved, traffic management needs, and any other safety issues that may arise during each stage of construction.

While this Manual does not intend to anticipate or solve all issues that may arise, it highlights concerns based on the City’s experience and feedback from residents, businesses and developers. This Manual outlines the City’s By-laws, expectations, best practices and requirements before, during, and post construction. It also provides communication tips to help everyone involved move smoothly through the construction process and offers guidance when issues do arise.

Construction and Traffic Management submissions are typically prepared by the Developer’s Civil Engineer in consultation with architects, transportation engineers, geotechnical engineers, hydrogeologists and the Site Construction Manager during the Subdivision or Site Plan Control Application Review Process. The individual(s) preparing the Construction and Traffic Management Report and associated plans should have extensive construction knowledge, including a good

understanding of equipment and machinery required on-site, construction trades that will be utilized, and the sequencing of construction related activities and operations during the different stages of construction.

Construction and Traffic Management Reports and associated plans shall be submitted to the City for review and acceptance prior to the issuance of any permits or agreements. These documents will be referenced in the Site Plan or Subdivision Agreement that is registered on title of a property that is subject to the construction of an approved development. The report will be used as a reference if problems arise in relation to the construction of the development.

The Construction and Traffic Management Report (and associated plans) are living documents and therefore may require periodic updates to reflect the stage of construction and/or any changes to construction activities. Changes or updates to said documents shall be approved by the Development Services Department.

1.1 ADMINISTRATION

Construction and Traffic Management Reports and associated Plans shall be submitted to, reviewed and approved by the Approvals and Traffic Operations Branches of the City's Development Services Department prior to the execution and/or registration of a Subdivision Agreement or Site Plan Agreement, or before the issuance of any City permits (i.e. ROWA and/or Building Permits). City staff within the Development Services and Building Departments will administer the Construction and Traffic Management Report and associated Plans throughout the construction process.

1.2 WHEN THINGS GO WRONG

If problems occur during construction (such as noise complaints, traffic conflicts, site safety concerns, debris on the roadway, vibration impacts, utility disruptions, or other safety issues), the Developer is expected to:

- Refer to the approved Construction and Traffic Management Report to guide corrective actions.
- Communicate promptly with the City, the Local Councillor, and the affected neighbours.
- Respond quickly to complaints (for example, cleaning debris within 24 hours or addressing vibration complaints immediately).
- Work with City staff to adjust construction methods, update plans, or strengthen mitigation strategies as necessary.

1.2.1 HOW PROBLEMS GET RESOLVED / ESCALATION PROTOCOL

1. Immediate On-Site Response:

- Pause the activity contributing to the issue, where necessary for public safety.
- Refer to the approved Construction and Traffic Management Report to determine the prescribed mitigation measure.
- Implement corrective actions, including:
 - site clean-up

- traffic adjustments
 - equipment modification
2. Communication
- a. With the City:
 - The Development Services Department
 - The Building Services Department (if applicable)
 - Relevant departments identified in the pre-construction meeting (e.g., Traffic Operations, Water Operations)
 - b. With Affected Residents / Stakeholders:
 - Notify affected individuals
 - Provide an explanation of the issue and anticipated impacts
 - Outline the corrective measures being implemented
 - Offer a point of contact for follow-up
3. Follow-Up / Monitoring:
- Monitoring the issue to ensure it does not reoccur
 - Adjusting strategies if initial actions are insufficient
 - Documenting the incident, the response, and the outcome
 - Update The Construction and Traffic Management Report (as required)
4. Formal Escalation / Enforcement Actions:
- Updated plans or drawings (e.g., revised TMP, updated traffic control layouts)
 - Temporary pause of construction activities
 - Orders to comply (administrative penalties or fines)
 - Suspension or revocation of permits
 - Charges under applicable by-laws or provincial legislation
5. Continuous Improvement:
- Review on-site procedures
 - Review communication protocols
 - Review mitigation strategies
 - Update The Construction and Traffic Management Report (as required)

2.0 CONSTRUCTION AND TRAFFIC MANAGEMENT REPORT REQUIREMENTS

The Construction and Traffic Management Report provides a consolidated summary of the construction logistics, emergency contact lists, safety information, and mitigation measures for the proposed construction activities. Understanding the City's by-laws and getting ahead of issues before they become problematic for the neighbouring residents, businesses and the construction team will reduce complaints and help avoid possible enforcement fines and delays.

The Construction and Traffic Management Report shall be submitted during the development application review process associated with Site Plan Control and Plan of Subdivision Applications, as well as at the time of the submission of a Right-of-Way Activity Permit and/or Building Permit. This proactive approach enables the developer to work with City staff and applicable external agencies to address and resolve potential issues early in the process to avoid and mitigate challenges that may arise during construction.

2.1 PROJECT INFORMATION

Project information typically comprises of:

- Description of the project;
- Construction start date and estimated date of completion;
 - For mid and high-rise developments, provide estimated dates for each stage/phase of construction (i.e., excavation and shoring, below ground, at grade and above ground).
- Days and hours of construction activity; and,
- Emergency preparedness plan and the name, phone number and email address of the primary contact person for the development project.

The Developer shall ensure the proposed construction activity conforms to all relevant City By-laws, Standards and Guidelines.

2.2 COMMUNICATION PLAN

It is helpful to communicate with your neighbours before applying for construction permits. Informed neighbours are more likely to be understanding of your construction project, regardless of its size or scope. The required communication plan shall be in the form of a letter and may include a plan to detail when and how communication will occur, the expected timelines, as well as how the proposed work may impact them. The Developer will be required to provide draft notices to the City for review prior to delivering the notices to the neighbourhood.

The Developer shall also undertake additional consultation before and during the construction period to keep local residents and stakeholders informed of the type and nature of work, as well as any potential impacts on public amenities, utilities, and infrastructure. The Developer shall elaborate on how communication will be maintained with the public during construction so concerns can be addressed quickly.

The communication plan shall outline communication protocols with the City and the Local Councillor, and also include emergency contacts for the Developer, the Site's Construction Manager and the Consulting team.

2.3 PRE-CONSTRUCTION ADJACENCY INSPECTIONS

The City recommends the Developer and their consulting team inspect and report on the existing conditions of the surrounding properties within the construction zone of influence prior to commencing any construction. A key map indicating the properties within the construction zone of influence, and a record of participation or denial of the request to inspect shall be included in the Construction and Traffic Management Report. It is best practice for the Developer to retain copies of these records.

The Developer is strongly encouraged to take pre-construction photographs of the entire work zone and immediate surroundings, including but not limited to the quality/condition of surrounding surfaces, private buildings or structures, signage, fences, retaining walls, public infrastructure, surrounding vegetation, etc.

2.4 PRE-CONSTRUCTION MEETING

Pre-construction meetings are an essential part of the construction process. Prior to commencing work, the Developer shall request a pre-construction meeting with the City. The purpose of this meeting is to discuss roles and responsibilities, establish communication protocols, and set expectations with all critical players before construction begins.

The pre-construction meeting shall be initiated by the Developer and/or their consultant(s) prior to the commencement of any site works. Please allow yourself time to set up and prepare for this meeting. This meeting shall be held at a mutually convenient time either virtually or in-person at City Hall. The meeting shall include representatives from the following parties:

- Developer and/or their representative;
- Contractor(s);
- City of Barrie Development Services staff – Approvals (Engineering), Parks Planning, Planning, Traffic Operations (ROWA), and Field Coordination Groups;
- City of Barrie Building Department – Building Inspector and Plans Examiner;
- City of Barrie Water Operations Branch;
- Utility Company Representative(s);
- Civil Engineering Consultant;
- Landscape Architectural Consultant; and,
- Transportation Engineering Consultant.

At the meeting, the City, Developer and the Contractor(s) can identify potential issues or conflicts. The Developer shall prepare a comprehensive agenda and presentation specific to the Construction and Traffic Management Report and associated plans, including the mitigation measures that will be implemented to minimize the impact of construction to the public and surrounding community.

Pre-construction meetings will only be scheduled when a Site Plan or Subdivision Agreement has been registered on title of the subject lands. To schedule a pre-construction meeting, please contact: development.coordination@barrie.ca. To avoid delays, Developers should request the

meeting early, as additional time may be required to coordinate availability among City staff, utilities, and consulting team members.

2.5 CRANE(S), CRANE SWING AND HOISTING PLAN

The Construction and Traffic Management Report shall identify the location of cranes, details on the type of cranes, and limits of boom and load swings, including staging areas for hoisting materials and equipment. In this regard, the Developer shall include a crane swing and hoisting plan in the report, in accordance with the requirements in Section 3.1. Under no circumstances shall the crane swing carry live loads or perform lifting and hoisting operations within City owned lands and rights-of-way, or within privately owned lands.

The safe operation of mobile and cranes at construction sites is regulated under the Occupational Health and Safety Act through the Ministry of Labour. For more information please visit: https://www.labour.gov.on.ca/english/hs/sawo/pubs/fs_mobilecranes.php

2.6 SITE ILLUMINATION

The Developer shall outline the lighting strategy for the construction site and any public lands (sidewalks, walkways, boulevard, right-of-way, etc.) affected by construction activities, ensuring that adequate illumination is provided for worker safety, as well as the safety of pedestrians and vehicles. In this regard, the Construction and Traffic Management Report shall include an Illumination and Photometric Plan. The plans shall demonstrate that the construction lighting will not have a negative impact on adjacent properties and roadways and demonstrate compliance with Dark Sky policies.

2.7 SUBSURFACE INVESTIGATION

A subsurface investigation (SSI) for construction shall be undertaken before any construction activities occur on site. In this regard, the SSI shall assess soil, rock, and groundwater conditions to inform project design and construction methodologies, and reduce risks by gathering data on subsurface materials, buried utilities, and municipal infrastructure before construction begins. The findings of the SSI shall be summarized in the Construction and Traffic Management Report.

2.8 TIE-BACKS AND SHORING

If tie-backs are required for building shoring during construction, the Developer shall submit a tie-back and shoring plan for review during the Site Plan Review process. The plan shall identify the location of all tie-backs and note how far said tie-backs will encroach into City owned lands and rights-of-way, as well as privately owned lands. In this regard, the plan shall identify all public infrastructure and utilities to ensure that there are no conflicts with the location of the proposed tie-backs.

Tie-back encroachments into City owned lands and rights-of-way will require an encroachment agreement between the developer and the City. This requirement can be addressed through the Site Plan Control process. The Developer is responsible for entering into encroachment agreements for any tie-back encroachments into privately owned lands. Copies of private encroachment agreements shall be included in the Construction and Traffic Management Report.

2.9 EROSION AND SEDIMENT CONTROLS

Developers shall identify the erosion and sediment controls that will be implemented during construction. The erosion and sediment controls implemented on-site shall be in accordance with

the erosion and sediment control plans approved by the Development Services Department through the Site Plan or Subdivision review process. Erosion and Sediment Control Plans shall be prepared in accordance with the requirements of the City's **Site Alteration By-law**.

2.10 TEMPORARY CONSTRUCTION DEWATERING

Developers shall confirm if temporary dewatering is required to facilitate site construction works. All discharges to the Municipal Sewer Systems are regulated by the City of Barrie's **Sewer Use By-law**. Discharge of water originating from a source other than the City's Municipal Drinking Water System and leachate to the municipal sanitary sewer is prohibited unless authorized by a Discharge Agreement. Discharge of non-contact cooling water and water from dewatering activities to the municipal storm sewer is prohibited unless authorized by a Discharge Agreement.

A Discharge Agreement may be entered with respect to the discharge of wastewater or groundwater which contains water that has originated from a source other than the City water supply system. Detailed information, samples, and studies relating to the quality, quantity, and flow rate of the discharge must be provided to the City of Barrie before an approval for a Discharge Agreement to the Municipal Sewer Systems can be considered.

A copy of the executed Discharge Agreement shall be submitted to the Development Services and Building Services Departments prior to the commencement of works on site. A copy of the agreement may be emailed to: **development.coordination@barrie.ca** and **building.official@barrie.ca**.

To learn more or apply for a discharge agreement, please visit the **Discharge Agreement Application** webpage on the City's website.

2.11 CONSTRUCTION PARKING

The Developer shall identify where and how parking will be provided for all tradespersons and machinery used to carry out construction activities on site. In this regard, construction vehicles and machinery used to carry out construction projects, the majority of which include but not limited to earth work and concrete work activities, are not permitted to occupy the City's right-of-way (ROW) and shall not block access or egress for neighbours. All construction related parking shall be on-site or through special private arrangements for offsite parking. Communicating the scope and the duration of the construction project with your neighbours is recommended.

Construction parking shall be shown on the Construction and Traffic Management Plan drawing(s) with the following to be identified in the Construction and Traffic Management Report:

- The location of on-site construction office(s)/trailer(s) and adequate parking area for construction personnel and field staff for each stage of construction, including number of parking spaces;
- A feasible location for on-site commercial and construction parking including all trades' personal vehicles (the sole use of or reliance on public street parking is **not** permitted, unless special approval is granted by the City);
- Where an agreement is reached with neighbouring properties for private off-site parking, temporary access, storage yard, or other use, the Construction and Traffic Management Report shall include a copy of a letter/agreement with the neighbouring property owner(s);

- Material storage, staging and loading/off-loading areas, including the stacking and queuing for trucks associated with the construction (the number of trucks and dimensions shall be identified); and,
- Construction parking arrangements shall be approved by City staff prior to the commencement of the project and reviewed with the Developer and Contractor(s) at the pre-construction meeting. Further, the Developer shall notify residents of the approved parking arrangements prior to commencing construction to avoid conflicts or disruptions.

2.12 WORKS ON ADJACENT PRIVATE PROPERTY

If proposed construction works are required on adjacent private properties, the Developer shall seek formal authorization letters/agreements from the impacted property owners that indicates they have reviewed the scope of work and are allowing the Contractor to enter their lands to perform the work. The City requires copies of all formal authorization letters prior to issuing any permits or agreements.

2.13 CONSTRUCTION MITIGATION MEASURES

2.13.1 Construction Vehicle Queuing, Access and Traffic Control

Vehicular and pedestrian traffic adjacent to construction sites must be safely and thoughtfully managed. Construction vehicle (i.e., dump trucks, concrete trucks, delivery trucks, etc.) staging and queuing, and loading and off-loading of materials is not permitted within the City's right-of-way, unless special approval is granted by the City.

The Construction and Traffic Management Report shall describe, and at a minimum include, the following:

- Haul routes to the site from the nearest arterial or collector road for each stage of construction. Please refer to the Permissive Truck Route Mapping in Schedule 14 of the City's **Traffic By-law 2020-107**;
- Identify how the Contractor will enforce the use of approved routes to the site to avoid the infiltration of construction traffic and heavy vehicles into residential neighbourhoods;
- Identify the area of the right-of-way proposed to be occupied by construction and associated activities. In this regard, the Developer may be responsible for paying a fee for the occupation of and storage within the right-of-way for period exceeding 30 days.
- Location of cranes and construction elevators, including the installation and dismantling of same;
- Identify paid on-street parking spaces that may be impacted by construction activities. In this regard, developers shall be responsible for covering the daily costs associated the obstruction of or impact to paid on-street parking spaces;
- Discuss how construction traffic will be accommodated without queuing on public roads, unless otherwise approved by the City with the implementation of traffic control personnel;
- Construction vehicles (i.e., dump trucks, concrete trucks, delivery trucks etc.) queuing for each stage of construction;
- Where and how the loading and off-loading of materials will occur;
- Construction access;
- Appropriate traffic control including layouts for signing, temporary lane closures for construction stages, etc. in accordance with the Ontario Traffic Manuals; and,

- How the traffic management of the site will be monitored and managed throughout the construction activity period.

2.13.2 Management of Mud, Dirt and Debris on Public Property and Right-of-Ways

The City of Barrie prohibits the tracking of mud, dirt and debris from private property into a public road per **Right of Way Activity By-law 2012-173**. This By-law regulates activity on municipal rights-of-way (ROW), the placement or dumping of equipment, material, and debris or garbage on a municipal roadway which includes the boulevard or unpaved portions of a roadway. The Developer shall ensure all mud tracked onto the public road is cleaned up daily. When the City receives a complaint, the Developer shall have 24 hours to clean the roads.

The Construction and Traffic Management Report shall describe and include, at a minimum, the following:

- The location of mud/stone mats;
- Removal of dirt, debris and mud from sidewalks and streets at the end of every working day when excavating, backfilling, cutting masonry, etc. either by washing and/or sweeping;
- Truck loading points to limit the tracking of soil and construction material off site; and,
- Cleaning of loose soil, mud and other site debris from trucks and vehicles prior to leaving the site including washing of tires and sweeping/washing of exterior tailgates

2.13.3 Dust Control

The City of Barrie regulates dust through Site Plan and Subdivision Agreements, as well as the **Yard Maintenance by-law 2011-107**.

Developers shall ensure erosion and sedimentation control measures at the perimeter of and within the construction site are implemented, monitored and replaced in accordance with City's **Site Alteration By-law 2014-100**. The report shall describe the measures to be taken to reduce the emission of dust such as but not limited to:

- Details on the method and frequency of watering down driveways, internal roadways, trucks, public roads, etc. to minimize airborne dust;
- Addition of calcium chloride or other dust suppression techniques/equipment;
- Utilization of wind screens or fence filter to absorb the dust blowing from the site;
- Tarp all trucks leaving the site which have been loaded with soil or debris;
- Use wet saws to cut concrete and stone; and,
- Provide advanced notice to surrounding neighbours if planned work will be particularly dusty for a lengthy period of time to allow opportunities for the residents to close their windows.

2.13.4 Site Protection and Hoarding

Construction hoarding and fencing is not permitted within the Municipal ROW unless approved by the City. When permitted, hoarding/fencing shall not obstruct sight lines or public infrastructure and utilities (i.e., hydrants, traffic control signals, light standards, weather monitoring systems, transformers, hydro poles and lines, bus shelters, etc.). If construction activities are expected to

impact public infrastructure or utilities, the Developer shall describe and demonstrate how these items will be addressed during construction and following project completion. In this regard, the Developer is responsible for all costs associated with removing, relocating, and/or reinstating any public infrastructure or utilities that may be impacted by construction activities. Securities will be collected by the City through the Site Plan or Subdivision Agreement for works associated with the removal, relocation or reinstatement of public infrastructure or utilities.

In addition to describing site protection and hoarding measures in the Construction and Traffic Management Report, the Developer shall also provide the following information:

- Type and location of hoarding/fencing with a stabilization plan (e.g., dimensions, materials, installation). All hoarding/fencing within the Municipal ROW shall comply with O. Reg. 213/91 s. 64 and s. 65;
- Overhead protection and clearances for sidewalks. Sidewalks must be always kept accessible and passible for all users including pedestrians with disabilities (wheelchairs, sight and hearing impaired, etc.) by the Developer's Contractor. Indicate temporary sidewalks and the alternative routes and signage for safe passage;
- Location of gates and their swing paths. Gates shall not swing into the Municipal ROW.
- Location of traffic control signage and sight triangles (shall be clearly visible and free from obstructions).
- Plans which identify the pre, interim and post construction conditions for public infrastructure and utilities that may be impacted by construction activities. In this regard, approval/clearance from applicable external agencies, including but not limited to Alectra Utilities, Enbridge Gas Inc., Rogers and Bell Communications shall be submitted to the City.

2.13.5 Pedestrian Access

Sidewalks serve as key corridors for many different users including pedestrians, people who use mobility assistance devices, e-scooters, wheelchairs, bicycles, skateboards, among others. Any construction project that obstructs a sidewalk must provide mitigation measures, which may include temporary sidewalks that allows safe and convenient passage of pedestrians, or clear directions to a nearby detour.

To ensure complete, safe, useable, and accessible paths of travel for the duration of a project, the Developer shall adhere to Ontario Traffic Manual Book 7, Section 2.6.2 and demonstrate compliance with the following in the Construction and Traffic Management Report:

- Equipment, debris, construction materials or vehicles shall not obstruct the sidewalk at any time;
- During construction, any sidewalks, walkways or pathways impacted by construction activities shall be appropriately protected using physical barriers such as overhead protective hoarding;
- During construction, tripping hazards and barriers for pedestrians and people with mobility impairments must be removed to maintain an accessible pedestrian corridor;
- Where required, the contractor shall install and maintain a temporary concrete or asphalt sidewalk and ramps to provide a safe path of travel for all users;

- Where a portion of the pedestrian sidewalk is re-routed due to construction, the path of travel must be clearly defined and signage must be erected as per OTM Book 7 TC-40 Pedestrian Direction and TC-41t Sidewalk Closed. Sidewalks without continuous travel paths or have unsafe crossings are not permitted;
- Temporary closure of designated pedestrian routes and crossings shall be allowed only when construction flaggers are present safely directing pedestrians around hazards; and,
- Pedestrian access corridors shall be clearly delineated with cones or barricades approved by the City. Caution tape alone is not acceptable to delineate the path of travel or create a barricade

2.13.6 Noise and Operating Hours

Noise associated with construction, the operation of equipment, and truck idling is permitted Monday to Saturday between 7 a.m. to 7 p.m. Construction related noise is not permitted on Sundays and statutory holidays per the City of Barrie's **Noise By-law 2006-140**. The Contractor shall be mindful of other noise nuisances such as noisy stationary equipment (such as generators, pumps, and compressors), volume of music being played, inappropriate language, reversing vehicle sounds, and loading/unloading of equipment and materials. The Developer shall ensure noise mitigation measures are in place prior to construction and to address noise complaints immediately.

The operation of any construction equipment in connection with an active construction or development site shall not occur outside the hours of 7 a.m. to 5 p.m. from Monday to Saturday within a 'Quiet Zone', as defined in Section 3.1.25 of the City's Noise By-law. 'Quiet Zone' means an area within 500 metres of Royal Victoria Hospital, or other hospital, long term care facility as regulated by the Ministry of Health, City Hall, or any Provincial or Federal Courthouse.

Temporary exemptions from the hours of operation noted in the provisions of the Noise By-law may be granted by City Council for the operation of equipment in conjunction with City projects or reconstruction projects, general maintenance and emergency maintenance projects. Applications for an exemption shall be made to the City Clerk, in accordance with the provisions of Section 6.0.0 of the Noise By-law.

2.13.7 Construction Vibration

The City is seeking to minimize the adverse effects on adjacent buildings, including heritage structures, from construction and demolition vibration. In the event that the projected zone of influence extends beyond the legal property boundaries of the construction site, the Developer shall provide a formal Declaration that acknowledges the responsibility of retaining an independent qualified Professional Engineer specializing in vibration control, monitoring and analysis of soil movement to develop a vibration mitigation/monitoring program prior to starting any construction activity on site including but not limited to:

- Pre-construction survey consultation;
- Pre-construction measurement of background vibrations;
- Pre-construction inspection of adjacent buildings and structures within the zone of influence;
- Identify mitigation measures; and,

- Prepare a Monitoring Program.

A sample Vibration Control Declaration Form is provided in Appendix “A” of this Manual.

Having a vibration monitoring program in place does not relieve the Developer of the responsibility for undertaking any necessary actions required to install additional monitoring instruments and independent reading of instrumentation, to ensure that work proceeds in a safe and secure manner. In the event the City receives vibration-related complaints (i.e., equipment used for pile driving, compaction, etc.), the Developer shall ensure vibration controls are in effect and report back to the City on the mitigation measures within 24 hours. If the general controls comply but complaints continue to persist, the Developer shall investigate and apply alternative mitigation measures where reasonably available.

2.13.8 Light Pollution

The Contractor shall be mindful of the impact of excessive glare, light spillage and sky glow on adjacent occupants and properties. Shining lights directly onto adjacent properties or into surrounding buildings, or failing to provide an effective barrier to prevent light from shining onto an adjacent property or into a surrounding building may also be construed as nuisance lighting, as noted in Section 38.6 – Light in the City’s **Property Standards By-law 2011-138**. Minimize glare where possible and avoid directing light up to the sky or towards adjacent properties and dwellings. Avoid light levels in excess of the recommended light levels required to support safety, security, and conducting respective tasks. Additionally, the use of guards and shields shall be employed to prevent light spillage onto adjacent properties.

For roadway construction, additional guidance for minimizing glare for roadway users (e.g., drivers, pedestrians) can be referenced in OTM Book 7 - Section 2.6.5; IES RP-8 Sections 19.3 & 19.4; and TAC Guide for the Design of Roadway Lighting Volume 2 – Design, Section 19.4. Temporary lighting for roadways and sidewalks/pathways shall meet the same requirements as permanent municipal lighting, as it relates to illumination levels.

The Construction and Traffic Management Report shall describe the lighting features and lighting plan proposed for the site for the duration of construction. As noted in Section 2.6, the Construction and Traffic Management Report shall include a Construction Illumination Plan and a Photometric Plan. The Illumination Plan shall clearly identify the type, placement, and power sources for construction lighting. The Photometric Plan shall demonstrate that the construction lighting is not directed towards, and does not spill onto, adjacent private properties. The minimum requirements for Illumination and Photometric Plans can be found in Section 3.4.

2.13.9 Construction Trailer, Portable Washrooms and Waste and Material Storage

Construction trailers, amenity structures and waste and materials must be situated on private property. The report shall describe the location of the construction trailer, amenity structures, and make provisions for collection of daily rubbish and removal of waste from the site during permitted hours. The Contractor shall frequently clean the construction site to minimize garbage blowing into the right-of-way and neighbouring properties.

2.13.10 Traffic Control and Detour Plans

Partial, temporary lane closures may be required to allow for the installation, replacement or decommissioning of infrastructure within the right-of-way. In rare occasions, a temporary full road closure may be required to facilitate expedited construction of municipal infrastructure and to provide a greater degree of safety to both the general Public and Contractors during the construction period. The Developer must demonstrate that the full closure is needed by submitting a formal written justification request to the City for review and approval. Full road closures require a minimum of eight (8) weeks lead time before construction is scheduled to commence. Whether a partial or full closure is required, the Developer must submit a Traffic Management Plan (TMP) to the City for review and approval. A TMP is a drawing (or set of drawings) that provides guidance for construction traffic to safely access and egress the construction site with minimal impact to the nearby area, as well as to ensure that existing vehicular and pedestrian traffic can safely be accommodated during the construction period. A TMP/Detour Plan submitted to the City must be sealed by a licensed professional engineer and include signage, pavement markings and any other traffic control devices required in accordance with Ontario Traffic Manual (OTM) Book 7 – Temporary Conditions. Should construction occur in multiple stages, a TMP/Detour Plan must be prepared for each stage.

The purchase/rental, implementation, maintenance and removal of all related TMP/detour signs and traffic control devices/persons is the responsibility of the Developer. Inspection of the implemented TMP/detour signs and traffic control devices will be completed by the City's Municipal Inspector prior to construction.

All work within the City's ROW will require a **Right-of-way Activity Permit**. Permit applications can be submitted online through the **City's Applications, Permits, Licences and Inspections (APLI)** Portal. Right-of-way Activity Permits are required any time construction activities will be occurring on or across City property, including but not limited to roadways, curbs, boulevards, sidewalks and walkways, parks and open spaces, and environmentally protected lands.

For more information, please visit the City's website or email engineering.rowap@barrie.ca.

3.0 CONSTRUCTION AND TRAFFIC MANAGEMENT PLAN/DRAWING REQUIREMENTS

Construction and Traffic Management submissions are typically prepared by the Developer's Civil Engineer in consultation with the on-site construction manager during the Development Approvals process (i.e. Site Plans and Subdivisions). This section describes the types of plans that shall be prepared to help inform the Construction and Traffic Management Report for a development project. These plans shall be reviewed and approved by the City prior to the registration of a development agreement and the issuance of any permits. All approvals shall be in place prior to construction.

The Construction and Traffic Management Report and associated plans are living documents that should be continually reviewed and updated to reflect changing site conditions such as:

- Upon completion of different stages of construction;
- Deviation in construction strategy;

- New technology or methodology; and,
- Unforeseen or unique circumstances.

3.1 CONSTRUCTION MANAGEMENT PLAN

The Construction Management Plan provides information about construction activities, duration and parameters the Developer and their contractor(s) will uphold during construction to mitigate impacts to City residents, private property, neighbourhoods, and City streets.

Construction Management Plan – Minimum Drawing Requirements	
Identify the site location and neighbouring properties and buildings/structures	
Construction and Traffic Management for each phase/stage of construction. For mid and high-rise developments, this also includes the excavation phase/stage, below-grade construction, at-grade and above construction.	
Identify the location and limits of site protection fencing/hoarding (including overhead protection hoarding), together with details confirming the fencing/hoarding material-type and dimensions. Shall also identify the location of gate swings for site access.	
Crane type(s), location(s) and limits of boom swings. * Live loads are not permitted to swing over City lands or private property*	
Staging areas for lifting and hoisting operations.	
Site logistics and material management.	
Shoring limits and location of tie-backs (includes the identification of encroachments into municipal lands and rights-of-way, as well as private lands. Shall also confirm no conflicts with public infrastructure or utilities). Details shall correspond to the shoring and tie-back plan(s) that were reviewed and approved by the City through the Site Plan Control Application process.	
Proof of the execution of a Discharge Agreement with the City for the discharge of wastewater or groundwater to the City's sanitary sewer.	
Construction vehicle (i.e. dump trucks and concrete trucks) queuing and staging plan for each phase/stage of construction.	
Construction and commercial vehicle parking. Construction and commercial vehicles associated with site operations, as well as contractor and trades personal use vehicles must be parked on-site, or alternate arrangements shall be made by the developer to accommodate parking on another site. All efforts shall be made to avoid parking on City streets to minimize disruptions.	
Haul Route and location of construction site access.	
Pedestrian circulation networks, such as municipal sidewalks, trails, multi-use paths, etc. Shall identify pedestrian routes (including rerouting), signage, lighting, and safety and protective measures (i.e. overhead hoarding protection), including details for material types and dimensions.	
Removals and/or relocation of public infrastructure and utilities, including but not limited to municipal services, weather detection devices, light standards, signage, municipal parking spaces, parking metres, gas lines, communications lines, etc.	
All standard notes and details.	

3.2 TRANSPORTATION MANAGEMENT AND DETOUR PLANS

Partial, temporary lane closures may be required to allow for the installation, replacement or decommissioning of infrastructure within the right-of-way. In rare occasions, a temporary full road closure may be required to facilitate expedited construction of municipal infrastructure and to provide a greater degree of safety for both the general public and Contractors during the construction period. The Developer must demonstrate the need for a full closure by submitting a formal written justification request to the City for review and approval. Road closures require a minimum of eight (8) weeks lead time before construction is scheduled to commence.

Whether a partial or full closure is required, the Developer must submit a Traffic Management Plan (TMP) to the City for review and approval. A TMP is a drawing (or set of drawings) that provides guidance for construction traffic to safely access and egress the construction site with minimal impact to the nearby area, as well as to ensure that existing vehicular and pedestrian traffic can safely be accommodated during the construction period.

A TMP/Detour Plan submitted to the City must be sealed by a licensed professional transportation engineer and include signage, pavement markings and any other traffic control devices required in accordance with Ontario Traffic Manual (OTM) Book 7 – Temporary Conditions. Should construction occur in multiple stages, a TMP/Detour Plan must be prepared for each stage.

Transportation Management/Detour Plan – Minimum Requirements	
Identification of an appropriate Typical Layout from OTM Book 7 (Figure TL-1 through TL-93) based on the type of closure and duration of work.	
Location and size of the work area.	
Dates and times of planned start and end of closures (for each construction phase/stage).	
Haul Route and location of construction site access.	
Existing and reduced lane widths of the affected roads.	
Sight-Triangles are clear and free from physical and visual obstructions.	
On-site parking areas and truck lay-by areas (if applicable).	
Construction vehicle (i.e. dump trucks and concrete trucks) queuing and staging plan for each phase/stage of construction.	
Swept path analysis of construction vehicles accessing and egressing the construction sites (if applicable).	
Type and location of all required: • Traffic control devices; • Traffic barrels (TC-54) for lane reductions, shifts or closures; • Signs (including sign code and graphical representation); • Traffic control persons (TCP); • Work vehicles, sign trucks, blocker trucks, or crash trucks; • Flashing amber lights; • Vehicle four-way flashers and 360 beacons; • Portable traffic control signals; • Barricades or temporary concrete barriers; • Automated flagger assistance devices; and,	

Flashing arrow/bar board signs.	
Pedestrian circulation networks, such as municipal sidewalks, trails, multi-use paths, etc. Shall identify pedestrian routes (including rerouting), signage, lighting, and safety and protective measures (i.e. overhead protection hoarding), including details for material types and dimensions.	
Removals and/or relocation of public infrastructure and utilities, including but not limited to municipal services, weather detection devices, light standards, signage, municipal parking spaces, parking metres, gas lines, communications lines, etc.	
All standard notes and details.	

Additional guidance/requirements for the preparation of TMPs include:

- All relevant distances required in the OTM Book 7 Typical Layouts must be clearly identified in the TMP; the actual proposed distances must be shown (generic distances from the OTM Book 7 Typical Layout figures will not be accepted);
- If route detours are required, a schematic map must be provided showing separate detours for each affected origin/destination pair. Detours must be appropriately named (e.g., D-1, D-2, D-3, etc.) and corresponding signage must be shown in the TMP (per Figure TL-42 in OTM Book 7); and
- Preferably, the TMP should be prepared on an up-to-date satellite image background which allows the identification of existing features that may interfere with the proposed temporary signs and traffic control devices.

The purchase/rental, implementation, maintenance and removal of all related TMP/detour signs and traffic control devices/persons is the responsibility of the Developer. Inspection of the implemented TMP/detour signs and traffic control devices will be completed by the City's Municipal Inspector prior to construction.

All work within the City's right-of-way requires a **Right-of-way Activity Permit**, as noted in Section 2.13.10. Please allow enough time for the coordination of a partial or full road closure, in accordance with the '**Traffic Control and Detour Plans**' outlined in Section 2.13.10 of this document (a minimum of eight (8) weeks' notice prior to the start of construction). For more information, please visit the City's website or email engineering.rowap@barrie.ca.

3.3 SHORING AND TIE-BACK PLANS

If applicable, the Developer shall have shoring and tie-back section plans prepared by a Shoring Engineer in consultation with a professional Geotechnical Engineer and Hydrogeologist.

The shoring and section plans are reviewed and approved by the City's Development Services and Building Services Departments through the Site Plan Control and Building Permit Application processes. In this regard, the plans shall be submitted for initial review and approval through the Site Plan Control review process, and again later when a Building Permit Application is filed with the City. The City's Approvals (Engineering) Branch of the Development Services Department will review the submission to determine if any shoring tie-backs encroach within City's lands and if there are any

impacts to public infrastructure and utilities – this will occur through the Site Plan Review Process. The Building Services Department will review the submission for compliance with the Ontario Building Code (OBC) when a building permit application is submitted to the City.

Shoring piles are not permitted to encroach within the City's lands. Encroachment of shoring tie-backs are permitted within City's lands, subject to special conditions and additional securities provided through the Site Plan Agreement.

3.4 ILLUMINATION AND PHOTOMETRIC PLAN(S)

A Construction Illumination Plan identifies the lighting strategy for a construction site and any public lands (sidewalks, walkways, boulevard, right-of-way, etc.) affected by construction activities, ensuring adequate illumination is provided for worker safety, as well as the safety of pedestrians and vehicles.

The illumination Plan shall identify the necessary light levels, fixture types, placement/location of light fixtures, and power sources. The Photometric Plan shall demonstrate that the lighting provided on the construction site will not have a negative impact on adjacent properties and roadways in terms of lighting and demonstrates compliance with Dark Sky policies.

The Illumination and Photometric Plans shall be prepared by a professional engineer qualified in exterior, roadway and parking lot lighting. The Plans shall be stamped, signed and dated by a qualified professional, licensed in the Province of Ontario.

Illumination Plan – Minimum Requirements	
The location of all exterior lighting fixtures proposed for the duration of construction.	
The mounting height of all proposed lighting fixtures (from adjacent grade to underside of the fixture).	
The areas and/or building/structural elements intended to be illuminated.	
Notations that all exterior lighting fixtures are full cut-off to direct illumination downward and dark sky compliant to reduce light pollution, sky glare, and light trespass onto neighbouring properties.	
Manufacturer's data demonstrating the specifications for all proposed lighting fixtures, including the photometric data, designation as IESNA "full cut-off" fixtures, and other descriptive information related to the fixtures	
Photometric Plan – Minimum Requirements	
Provide all illumination levels in lux.	
Demonstrate illumination levels of 0.0 lux measured at all property lines.	
Provide readings that extend 6.0 metres beyond the property lines of the construction site.	

3.5 CRANE(S), CRANE SWING AND HOISTING PLAN

The Developer shall include a Crane(s), Crane Swing and Hoisting Plan in the Construction and Traffic Management Report. The plan shall clearly identify the crane type, location, extent of the boom swing, and the location of hoisting and staging areas. These details may be incorporated into the Construction Management Plan or may be provided on a separate drawing.

3.6 PUBLIC INFRASTRUCTURE AND UTILITIES – REMOVALS, RELOCATION, UPGRADE AND REINSTATEMENT PLAN(S)

Should the site and building construction works require the removal of or impacts, alterations or upgrades to public infrastructure or utilities, the developer shall prepare the following plans for

review and approval by City staff and applicable external agencies through the Site Plan Control and Plan of Subdivision review processes:

- Removals plan which identifies the infrastructure that is being impacted, altered or upgraded. The plan shall identify the duration of the impact (i.e. a permanent removal, temporary removal, etc.).
- A plan which identifies an interim solution for the duration of construction. For example, if light standards or hydro poles/lines are removed or relocated, the plan shall identify the interim condition of said infrastructure during the construction process. Interim conditions shall be equal to or better than the City's standard requirements.
- A plan which identifies the reinstatement of any public infrastructure or utility that is impacted or removed to facilitate construction works. Or, a Plan which identifies the new design, should infrastructure or utility upgrades be proposed. The reinstatement or installation of new public infrastructure or utilities shall be equal to or better than the City's standard requirements.
- A Plan which identifies asphalt restoration limits, which corresponds to details, including dimensions, on the applicable trench restoration detail.

Additional securities will be collected by the City through the execution and registration of a development agreement for development projects that propose to impact, alter, upgrade, or remove public infrastructure or utilities.

3.7 EROSION AND SEDIMENT CONTROL PLANS

Erosion and Sediment Control Plans shall be prepared in accordance with the requirements of the City's **Site Alteration By-law 2014-100**.

4.0 ADDITIONAL RESOURCES

- City of Barrie Development Review Process and Terms of Reference for Reports, Studies and Plans
- City of Barrie Development Manual
- City of Barrie Site Alteration By-law 2014-100
- City of Barrie Infrastructure Standards
- City of Barrie Right-of-Way Activity Permit Information
- City of Barrie Right-of-Way Activity By-law 2012-173
- City of Barrie Traffic By-law 2020-107
- City of Barrie Yard Maintenance By-law 2011-107
- City of Barrie Property Standards By-law 2011-138
- City of Barrie Private Tree By-law 2014-115
- City of Barrie Public Tree Bylaw 2014-116
- City of Barrie Tree Removal Permit Information
- City of Barrie Tree Protection Manual (Version 4, 2019)
- City of Barrie Sign By-law 2018-029

APPENDIX “A”

VIBRATION CONTROL DECLARATION FORM

Site Plan/Subdivision File No.		
Address of Construction Site		
Street No.	Street Name	Postal Code
I,		
(First and Last Name)		
do hereby declare: (confirm the following by checking off each box)		
☐ That I am the Owner/Authorized Agent of the Owner named in the above application for a permit.		
☐ That the information supplied by me in the application and in the materials filed by me with the application is correct.		
☐ That pre-construction consultation with the neighbourhood has been undertaken and all concerns and comments have been addressed.		
☐ That adjacency inspections of buildings and structures within the area of influence have been completed and documented.		
☐ That pre-construction measurements of background vibrations have been completed and vibration mitigation measures and a monitoring program have been established and implemented.		
☐ That I will ensure the monitoring of vibrations levels during construction is in accordance with the monitoring program.		
☐ That a written commitment of ongoing review and monitoring by a P. Eng. responsible for vibration control and letter of undertaking by owner has been provided to the City of Barrie.		
☐ That I understand the requirements of City of Barrie with respect to the public communications and complaint protocol, including the provisions for notice to the ward Councillor, owners and occupants of properties within the zone of influence one week before the commencement of construction and/or demolition activity that may cause vibrations.		
And I hereby certify conscientiously believing the above is correct.		

Print name

Signature

Date