

BUILDERS' BULLETIN

UPDATES TO THE BUILDING PERMIT PROCESS AS A RESULT OF BILL 23 AND BILL 97

February 21, 2024

BACKGROUND

Provincial Bill 23, More Homes Built Faster Act, 2022, and Bill 97, Helping Homebuyers, Protecting Tenants Act, 2023 has amended the Planning Act to exempt up to 10-unit residential developments from Section 41 of the Planning Act related to Site Plan Control, except where the property is located within 300m of a railway or 120m from a shoreline. In addition, the City's current Site Plan Control By-law exempts some Industrial and Rural zoned developments.

***Prior to making a Building Permit application**, consultation with City staff is required to determine whether a development is exempt from Site Plan Control and to determine the requirements for a complete building permit application.*

PURPOSE

The following bulletin was written to help inform the development community on how key By-law and Engineering requirements will continue to be implemented through Building Permit and Technical Services Permitting processes, where they were previously implemented through Site Plan Control Agreements. This memo is meant to be read in conjunction with the following documents:

- **Appendix A** "Building Permit Drawing Requirements"
- **Appendix B** "Site Statistics Table"
- **Appendix C** "Certification Requirements for Private Services and Grading"

The requirements outlined below may be superseded by site-specific zoning provisions and/or conditions of development approval that may be identified through the review of a development application.

1. Building Permit Servicing Plan Review:

1. Developers will be expected to confirm whether their development requires a water services 100mm in diameter or larger, or a "private storm/sanitary sewer services" that serves more than one building sewer; except for two semi-detached dwelling units or row house complex with 5 or fewer units. If the servicing requirements are

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unknown the developer must consult with city staff **prior to making a Building Permit application.**

2. Developers are required to confirm that municipal water capacity is available as per the Ontario Building Code Requirements. Buildings greater than 600 sq.m. must confirm fire flow is available that meets or exceeds required fire flow calculations based on Fire Underwriters Survey 2020.

To confirm available fire flow, a municipal water capacity review can be requested through Development Engineering at developmentengineering@greatersudbury.ca. Refer to the user fee bylaw for applicable fees.

3. Developments with water services 100mm in diameter or larger, or where a "private storm/sanitary sewer services" is required; a Servicing Plan must be provided as per Appendix A "Building Permit Submission (Drafting & Design) Details for Developments Exempt from Site Plan Control" showing conformance with the Ontario Building Code, Ministry of Environment Conservation and Parks guidelines, and City Standards.
4. Developments with water services less than 100mm in diameter and standard sanitary connections must identify these services on the submitted Comprehensive Plot Plan, sized in accordance with the Ontario Building Code.
5. Where a servicing plan is required, Building Services will require a Commitment Certificate from the Developer's Civil Engineer **prior to issuance of any Building Permit.**
6. Prior to construction of the water, sanitary or storm services, the Developer will obtain a work order and road occupancy permit through Technical Services and pay all applicable fees and deposits. For all water services 100mm in diameter or larger, or "private storm/sanitary sewer services" a Commitment Certificate from the Developer's Engineer will be required by Technical Services **prior to issuing a work order.**
7. Developments with water services 100mm in diameter or larger, or where a "private storm/sanitary sewer services" is required; **Prior to issuance of Building Occupancy**, the owner must have their Engineer submit to Development Engineering for review, a Certification Package as per the "City's "Private Servicing and Grading Certification Requirements" (Appendix B)

2. Driveway Permits

1. Where a new driveway entrance is required, the entrance must be indicated on the building permit drawings for review by Building Services and Technical Services to confirm conformance with the Zoning By-law and Entrance By-law. All existing redundant entrances must be abandoned, and the boulevard restored, to City Standard.

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2. A driveway permit application must be obtained through Technical Services **prior to construction**, including a Road Occupancy permit and all applicable fees and deposits.
3. For residential developments of 10 units or less where the adjacent road is urbanized the entrance should be consistent with [GSSD 303.020](#) (Sidewalk through entrance). Otherwise, an urban entrance is required as per [GSSD 350.010](#).
4. For residential developments of 5 units and more, and all ICI developments the entrance apron must be paved, at minimum, 15m from the traveled portion of the adjacent road.

3. Slope and rock face review and certification

1. **Prior to issuance of any Building Permit or Site Alteration Permit** where rock blasting or slopes in excess of 2H:1V are proposed the following will be required and reviewed:
 - a. A rock blasting report, prepared by an Engineer with a minimum of 5 years of rock blasting experience.
 - b. For proposed slopes steeper than 2H:1V (not blasted out of solid rock), a slope stability report prepared by a Geotechnical Engineer.
 - c. A commitment certificate from the Developer's Geotechnical Engineer to review and certify the rock face and/or earth slopes.
 - d. Geotechnical Engineer to address compliance with O.Reg. 406/19 On-site and Excess Soil Management, in the scope of work.
2. Rock Faces higher than 1m must meet the following requirements:
 - a. All slopes greater than 2:1 and greater than 1.0m in height shall include a pedestrian guard, designed in accordance with the structural requirements of the Ontario Building Code, fastened securely along the top of the slope. Where pedestrian access to the high part of the slope is not easily accessible, a 1.8m (6ft) high chain link fence may be used in place of a pedestrian guard.
 - b. All slopes greater than 2:1 and greater than 0.6m in height located adjacent to vehicular traffic shall include a vehicle guard, designed in accordance with the structural requirements of the Ontario Building Code, fastened securely along the top of the slope.
 - c. All new rock cuts greater than 2m in height must be designed and constructed to meet a Class B or Class C hazard rating with 100% rock fall debris retention based on the Ministry of Transportation publication "RHRON: Ontario Rockfall Hazard Rating System – Field Procedures Manual" Appendix D: Submission (Drafting & Design)
 - d. The clear zone width for the rock-cut shall be measured from the edge of the traveled lane, sidewalk, or Public Way whichever is closer. (Public way

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means a sidewalk, street, highway, square or another open space to which the public has access, as of right or by invitation, expressed or implied.)

- e. At the discretion of the Chief Building Official, rock faces may be required to be designed as a retaining wall where the rock face abuts adjacent properties or buildings. Rock faces must be designed to remain structurally stable for any intended use of the adjacent lands and may include compliance with OPSD 201.010 and/or the Roadside Design Manual (including Interceptor ditches, overburden removal, rock face slopes, etc.).
 - f. Rock faces must be setback from the property line to meet the minimum requirements of the zoning bylaw for structures, but may require additional setbacks so that freeze thaw cycles do not cause the rock face to undermine adjacent properties overtime, and any required fencing or interceptor ditches can be maintained from the owner's property and are located entirely on the owner's property, unless an agreement, registered on title, is entered into with the adjacent property owner outlining maintenance requirements, etc.
3. **Prior to issuance of Building Occupancy**, a rock face and/or slope certification letter must be provided, to the satisfaction of the Chief Building Official, as per the City's "Private Servicing and Grading Certification Requirements" (Appendix B).

4. Zoning requirements:

- 1. A Comprehensive Plot Plan must be provided as per Appendix A "*Building Permit Submission (Drafting & Design) Details for Developments Exempt from Site Plan Control*", showing compliance with the Zoning By-Law and Ontario Building Code, including a Site Statistics Table.

5. Lot grading:

- 1. A design lot grading plan, and as-built lot grading plan must be provided as per the City's Lot Grading Policy and Ontario Building Code, including the storm water management features outlined in Item 6 below.
- 2. Additional Lot Grading Plan requirements are outlined in Appendix A "*Building Permit Submission (Drafting & Design) Details for Developments Exempt from Site Plan Control*".
- 3. The Lot Grading Professional must have regard for O.Reg. 406/19 On-Site and Excess Soil Management, when completing the lot grading plan.

6. Storm Water Management:

- 1. Storm Water Management must be provided as per the City's Draft SWM Design Guide dated April 18, 2023.
- 2. **Prior to closing out of the Building Permit** the Stormwater Management features must be indicated on the as-built lot grading plan.

7. Railway Vibration (75m) and Noise (300m/1000m) Studies for sensitive uses:

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1. The City of Greater Sudbury aims to ensure compatibility of development with adjacent land uses. Developers of noise and vibration sensitive land uses close to railways and railyards should familiarize themselves with the guidance outlined in the "[Guidelines for New Developments in Proximity to Railway Operations](#)". Some of the key items in this guide are as follows:
 - a. Noise control should be incorporated into the design, based on a noise study, where the development is located within 300m of a Railway line or 1,000m of a Railway Yard.
 - b. Vibration control should be incorporated into the design, based on a vibration study, where the development is located within 75m of a Railway line or Railway Yard.

8. Shoreline development:

1. The City of Greater Sudbury aims to protect surface water quality through the management of development on shorelines of lakes, rivers, and streams. Being the interface of land and water, shorelines are particularly important to water quality and fish and wildlife habitat. The City's Zoning By-Law establishes shoreline setbacks and vegetated buffer requirements. For more information, please visit the City's website regarding Shoreline Development available online:

<https://www.greatersudbury.ca/live/environment-and-sustainability1/lake-health/shoreline-development/>

Appendix A

A Guideline for Building Permit Submission Details for Developments Exempt from Site Plan Control February 26, 2024

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1.0 Preface and Definitions

The following is a guide to inform the development community of requirements for complete building permit submission of Plot plans, Grading Plans and Servicing Plans where Site Plan Control is not required as per the Bylaw 210-220 (as amended).

For the purpose of this document refer to the following definitions:

Should: Where should is used, the design detail is considered to be a best practice and the owner must make a reasonable attempt to satisfy the design detail.

Must/Shall: Where must or shall are used, the design detail is considered mandatory and must be satisfied.

Lot Grading Professional – An Engineer, Architect, Land Surveyor, Landscape Architect and /or company providing these services. The Lot Grading Professional must be approved by the City and have a valid Certificate of Authorization to practice in their profession in the province of Ontario and valid professional liability insurance (i.e., errors and omissions insurance). Other individuals/companies meeting the above criteria/conditions may also qualify as a Lot Grading Professional.

Private Storm and Sanitary Sewers – As defined by the Ontario Building Code, generally meaning a sewer service located on private property, not within a building, that serves more than one building sewer; except for two semi-detached dwelling units or row house complex with 5 or fewer units.

Site: The entire property under development.

2.0 General Plan Drafting and Topographic Survey Details

- 1) The plans must be legible. All drawings shall be submitted with metric dimensions, to a standard metric scale (1:100, 1:200, 1:250, 1:300, 1:400, 1:500). Minimum scale to be 1:500.
- 2) Drawings should generally be submitted using ARCH D (24x36) sheet size. Drawing size ARCH C (18 x 24) or ANSI B (11x17) may be accepted for smaller buildings less than 500m² where minimal grading and servicing information is required.
- 3) Drawings must be oriented to read in landscape view.
- 4) Existing conditions should appear faded in comparison to proposed work and use a text size of 1.6mm or 2.0mm on the final hard copy.
- 5) Various utility lines should be identified and appear slightly darker than existing topography.
- 6) Proposed work should appear heavier than existing conditions and use a text size of at least 2.0mm for notes, elevations and dimensions on the final hardcopy.
- 7) Drawings to include a key plan, indicating location of the site in respect to the City's street network.

The following information should be included on all the submitted plans:

- ☐ note the date any topographic survey, used as a base for the plans, was completed and the name of the Lot Grading Professional responsible for the topographic survey information;
- ☐ identification of the proposed use of the site;
- ☐ name and address of firm preparing the plan;
- ☐ required professional seals;
- ☐ municipal address and/or Legal Description (Reference Plan, Lot, Concession and Registered Plan Lot Number) for the development;
- ☐ north arrow;
- ☐ symbol and line-type legend;
- ☐ title block and revision block with dates for each revision;
- ☐ existing building structures and site details such as driveways, sidewalks, utilities, surface types etc. located, wherever possible and with the permission of the adjacent landowners, within 6.0m of the site;
- ☐ all existing and proposed driveways, road shoulders, traffic markings, curbs, curb cuts/depression, sidewalks, and ramps on both sides of the adjacent street;
- ☐ all man-made or natural features (i.e. watercourse, swale, culvert, retaining wall, embankment, catch basin, rock faces) on or adjacent to the site;
- ☐ location of high water mark where applicable;

- ☐ all main proposed features of the site shall be shown (all buildings, parking areas, driveways, above ground utilities, landscape areas, fencing and handrails, ditches, retaining walls, berms, trees, etc.);
- ☐ all existing utility services within the site, and on adjacent street, road allowance, boulevards and within 6.0m of the site, including all light standards and fixture locations, traffic signals, utility structures, hydro transformer boxes, vaults and Bell chambers, hydro/telephone/cable poles, guys and pedestals;
- ☐ all necessary construction details and general notes are to be provided so as to accurately convey the design intent of the elements on the plan and to address the proposed built form;
- ☐ location of all vehicle and pedestrian entrances to and from the building;
- ☐ location and description of all existing and proposed property boundaries, adjacent street names, easements, right of-way widening, and reserves within or adjacent to the subject lands;
- ☐ sight triangles; and
- ☐ signs (municipal and private) and parking meters.

3.0 Comprehensive Plot Plan

The submission of a Comprehensive Plot Plan is required for all developments exempt from Site Plan Control. All information on the plan must be in conformance with the City of Greater Sudbury Zoning By-law, Ontario Building Code, and any other applicable bylaws and design standards. All information within the Municipal Right-of-Way must be in conformance with the CGS Design Criteria, Supplemental Standards and Drawings. In addition, the following design details and drawing information should also be presented:

3.1 Comprehensive Plot Plan Information:

- ☐ use of existing and proposed buildings, the number of storeys, building areas (if more than one use provide allocated areas for each use), numeric identification of all building blocks, and the number of units;
- ☐ overall dimensions (in metric) of all property boundaries, all buildings and structures (including retaining walls) existing or proposed on the site and all setbacks sufficient to show the position of buildings and structures in relation to site boundaries;
- ☐ zoning of adjacent properties;
- ☐ location, design and construction details of garbage collection area, including required screening and method of collection;
- ☐ location of all outdoor storage and enclosure details;
- ☐ layout of parking area and dimensions of parking spaces, barrier-free parking spaces, loading spaces, aisles, driveways, ramps, fire routes;
- ☐ identification of parking area type (i.e. open, underground, garage);

- ❑ location of required fire access routes;
- ❑ location and dimension of all vehicle entrances, including width, turning radii and sight triangles;
- ❑ labelled existing and proposed surface treatment (i.e., grass, paved, gravel);
- ❑ dimension of abutting road right-of-way width including the location and width of traffic islands, hydro poles, fire hydrants, sidewalks, etc.;
- ❑ location and type of bicycle racks and method of securing to the ground;
- ❑ identification of regulated hazards (flood plains, wetlands, water courses, etc.), and provide setbacks to all limits of development;
- ❑ provision of a completed site statistic table as per Appendix B; and
- ❑ location, height and description of all existing and proposed retaining walls, fences, walls, and planting strips to provide buffer screening, including cross section.

3.2 Additional Design Details:

- 1) vehicles are required to enter and exit the site in a forward motion. Vehicle turning path templates may be required to ensure adequate turning radius and hammer heads are provided.
- 2) developments should be designed for the ease of pedestrians both on and off-site and encourage the separation of pedestrians and automobiles. Developments should be convenient to and accessible by persons with physical limitations and disabilities.
- 3) at minimum the first 15m of the driveway entrance must be paved from the traveled portion of the adjacent road.
- 4) a sightline analysis may be required where an entrance is proposed along a vertical or horizontal curve in the road.
- 5) further entrance requirements related with locations, width, slope, and maintenance may be found in the Use of Private Entrance Bylaw (2011-220).
- 6) entrances must be designed in accordance with the appropriate GSSD or OPSD based on the type of adjacent road cross section and development being proposed.
- 7) unused entrances must be abandoned, and the boulevard restored to City Standard.
- 8) bike racks should be in a highly visible location within 15m of the main entrance and must be securely fastened to an immovable object.
- 9) Waste Management staff may be contacted directly regarding options for waste collection from multiple dwellings. Larger refuse storage areas including those with traditional front-end containers should be screened on all sides with a fence and gate. In-ground storage

systems or smaller collection boxes to temporarily store garbage/recycling until collection day do not require screening.

- 10) trees are encouraged within the landscape buffer along a public road, spaced 6 m apart, and must be offset sufficiently from any services with appropriate root shields installed. The following trees are recommended for planting in areas that have high exposure to soil salt and aerosol salt.

- a. Chokecherry
- b. Japanese Tree Lilac
- c. tree form Pea shrubs
- d. Ohio Buckeye
- e. Blue Spruce
- f. Honey Locust

- 11) where a continuous hedgerow forms the screening device in a planting strip, hedge species must be a minimum of 1m in height and be planted at minimum 600mm on centre or as recommended by a horticulturist.

4.0 Grading Plan

Grading information may be included on the Comprehensive Plot Plan or Servicing Plan for smaller sites. Where a Grading Plan is provided, and grading information is indicated on multiple plans, the grades indicated on the Grading Plan will take precedence and all other grading information should be accurately coordinated or removed. All information on the Grading Plan must be in conformance with the City of Greater Sudbury Lot Grading Policy, Ontario Building Code, CGS Stormwater Management Guide, and any other applicable by-laws. In addition, the following design details and drawing information should also be presented:

4.1 Additional Grading Design Details:

- 1) all Retaining walls greater than 1.0m in height must comply with the Ontario Building Code, the Zoning By-law, and will require a Building Permit.
- 2) all slopes greater than 2:1 and greater than 1.0m in height shall include a pedestrian guard, designed in accordance with the structural requirements of the Ontario Building Code, fastened securely along the top of the slope. Where pedestrian access to the high part of the slope is not easily accessible, a 1.8m (6ft) high chain link fence may be used in place of a pedestrian guard.
- 3) all slopes greater than 2:1 and greater than 0.6m in height located adjacent to vehicular traffic shall include a vehicle guard, designed in accordance with the structural requirements of the Ontario Building Code, fastened securely along the top of the slope.
- 4) barrier free path of travel to all barrier free building entrances as per the Ontario Building Code, should be provided for all accessible parking stalls and along all exterior walkways that connect to the municipal right of way.

- 5) grading within the site along the Municipal right of way should accommodate an urban cross section within the right of way. (i.e., a 2-4% cross fall from the property line to the curb or future curb)
- 6) all new rock cuts greater than 2m in height must be designed and constructed to meet a Class B or Class C hazard rating with 100% rock fall debris retention based on the Ministry of Transportation publication "RHRON: Ontario Rockfall Hazard Rating System – Field Procedures Manual".
- 7) the clear zone width for the rock cut shall be measured from the edge of the traveled lane, sidewalk or Public Way whichever is closer. (Public way means a sidewalk, street, highway, square or another open space to which the public has access, as of right or by invitation, expressed or implied.)
- 8) at the discretion of the Chief Building Official, rock faces may be required to be designed as a retaining wall where the rock face abuts adjacent properties or buildings. Rock faces must be designed to remain structurally stable for any intended use of the adjacent lands and may include compliance with OPSD 201.010 and/or the Roadside Design Manual (including Interceptor ditches, overburden removal, rock face slopes, etc.).
- 9) rock faces must be setback from the property line to meet the minimum requirements of the zoning bylaw for structures, but may require additional setbacks so that freeze thaw cycles do not cause the rock face to undermine adjacent properties overtime, and any required fencing or interceptor ditches can be maintained from the owner's property and are located entirely on the owner's property, unless an agreement registered on title is entered into with the adjacent property owner outlining maintenance requirements, etc.
- 10) where rock blasting must occur a rock blasting report, prepared by a Licensed Professional Engineer with a minimum of 5 years of rock blasting experience, must be provided to building services for review.
- 11) rock faces must be at minimum 1m from the property line and must anticipate the potential of over blasting and how this may impact the adjacent properties.
- 12) where new impervious surfaces (i.e., parking, building, etc.) are proposed, stormwater management (SWM) must be addressed as per the City's Stormwater Management Guide.

Refer to Section 2.15 of the SWM Guide for requirements for small sites.

<https://www.greatersudbury.ca/do-business/infrastructure-and-city-construction/engineering-services/technical-documents/design-standards-for-linear-construction/design-standards-for-linear-construction-by-category/design-criteria-for-sewage-works/swm-guide-2023-04-18draftcompletepdf/>.

- 13) the Lot Grading Professional must have regard for O.Reg. 406/19 On-Site and Excess Soil Management, when completing the lot grading plan.

4.2 Grading Plan Drafting Details:

In addition to the General Plan Details noted in Section 2.0 the following information should be included on the Grading Plan:

- ☐ all plans containing proposed grading information must be signed and sealed by a Lot Grading Professional;

- ☐ provision of sufficient proposed and existing elevations at property line, back edge of sidewalk, top and bottom of curbs and retaining walls, road crown, site entrances and along the frontage of the property as required to show the design intent, ensure all drainage is retained within the site, and to reflect how the proposed grades match into the existing conditions;
- ☐ arrows indicating the direction and slope of surface drainage on all paved, granular and grassed areas;
- ☐ proposed elevations at all building corners and all building access points, (i.e. ramps, entrances, and loading bays);
- ☐ drainage swales with cross section details,
- ☐ roof downspout locations and direction of drainage;
- ☐ rim elevations on all catchbasins and maintenance hole;
- ☐ wherever possible and with the permission of the adjacent landowners, existing elevations are required to be shown at 3.0m and 6.0m beyond the site limits;
- ☐ locations where rock removal is required;
- ☐ erosion protection measures;
- ☐ geodetic grades as well as finished ground floor and lowest opening elevations, including basement floor elevations for all buildings requiring servicing;
- ☐ slopes indicated as a percent or by ratio of Horizontal:Vertical;
- ☐ location and details of all proposed stormwater management controls/facilities, where required.

5.0 Servicing Plan

Servicing information may be included on the Comprehensive Plot Plan or Grading Plan for smaller sites. All servicing information within the Municipal Right of Way must be in conformance with the City of Greater Sudbury Supplemental Design Criteria, Standard Drawings and Specifications, and all servicing information within the site must be in conformance with all applicable provincial regulations and guides, Ontario Building Code, the City's Sewer Use By-law (2010-188), and City's Water and Wastewater Systems By-law (2010-214) and the Backflow prevention bylaw (2017-217). In addition, the following design details and drawing information should also be presented:

5.1 Additional Water Service Design Details:

- 1) only one water service connection to the municipal system is allowed per site/property;
- 2) water services serving multiple buildings located on the same property, and water services 100mm or greater, must be designed by a Licensed Professional Engineer in accordance to MECP guidelines;
- 3) generally, a live tap shall be made where service connections are two pipe sizes smaller than the main;
- 4) a single, or bulk water meter is required for all developments (residential, commercial, industrial). The water meter must be located on the domestic water service prior to splitting the flow to multiple buildings. The meter must be installed either in a water meter chamber or in a heated outbuilding easily accessible by City staff;
- 5) blow-offs must be installed on all dead end watermains/services, or where a service is shared with multiple owners (condominium developments).
- 6) ensure the length and size of the water service, relative to the demand, provides sufficient turnover time to maintain adequate residual chlorine levels;
- 7) hydrant leads on site should not exceed 30m after the last domestic service connection.
- 8) hydrants must be located in areas accessible directly from the required fire route and must not be blocked by fences, ditches, parked cars, loading areas or any other barrier that would impede access. A 1.5m clearance must be maintained around a hydrant at all times.
- 9) a request to model the available fire flow and domestic pressure at the adjacent municipal main may be requested through Development Engineering. The owner or their authorized representative must confirm sufficient capacity is available for the water services within the site;
- 10) required fire flows, in municipally serviced areas must be based on Fire Underwriter's Survey Guidelines; and on the Ontario Fire Marshal Guidelines in unserviced areas.
- 11) service connections and disconnections must be in accordance with City's Protocol for New Watermain, Water Service and Wastewater Connections. Existing unused services must be abandoned at the Main.
- 12) where existing services are proposed to be reused, an assessment of the service must be completed to ensure the service is suitable for reuse. Existing services with lead solder must not be reused and must be abandoned at the main.
- 13) technical Services must be contacted (permits@greatersudbury.ca) prior to construction to obtain a servicing work order.
- 14) Prior to completing any construction activity within 10m of a trunk watermain greater than 350mm diameter, the owner will contact the City's Technical Services department to obtain a full list of requirements (i.e., contingency plan, communication plan, etc.).

5.2 Additional Sewer Service Design Details:

- 1) only one sanitary or storm service connection to the municipal system is allowed per site;
- 2) "Private Storm and Sanitary Sewers" shall be designed by a Licensed Professional Engineer as a main, and must meet MECP guideline design requirements;
- 3) sanitary test maintenance holes must be located entirely on the site, and are required for all non-residential sites and multi-residential buildings;
- 4) service connections 200mm or greater must be made with a maintenance hole located on the Main.
- 5) Service connections and disconnections must be in accordance with City's Protocol for New Watermain, Water Service and Wastewater Connections. Existing unused services must be abandoned at the Main.
- 6) Where existing services are proposed to be reused, an assessment of the service must be completed to ensure the service is structurally suitable for reuse. Existing clay pipes must not be reused and must be abandoned at the main.

5.3 Servicing Plan Drafting Details:

In addition to the General Plan Details noted in Section 2.0 the following information should be included on the Servicing Plan:

- ☐ all Plans with new water services 100mm in diameter or larger, or with "private storm/sanitary sewer services" must be signed and sealed by a Professional Engineer Licensed in the Province of Ontario with a valid Certificate of Authorization.
- ☐ watermain services to the building with pipe material, diameters and obvert elevations at critical locations;
- ☐ details of any service connections to the City infrastructure;
- ☐ hydrant flange elevations and adjacent finished ground elevations shall be shown on all hydrants within or immediately adjacent to the site;
- ☐ well locations (where applicable);
- ☐ existing and proposed service locations, pipe material and diameter;
- ☐ Location of all hydrants including dimensions to the proposed building;
- ☐ sanitary sewers, storm sewers labeled with the following: pipe material, diameter, slope, pipe bedding, and pipe inverts at all manholes, catchbasins, points of connection to main, building face and at property line;
- ☐ identify and dimension catch basins, double catchbasins, ditches, culverts, ditch inlets and ditch outlets, manholes, hydrants, valves (boxes and chambers), Siamese connections and service shutoffs (municipal curb stops to be located within the right of way, 0.3m from the property line);
- ☐ rim elevations of all manholes and catchbasins;

- ☐ location and details of all proposed stormwater management controls/facilities, where required;
- ☐ finished ground floor and basement floor elevations;
- ☐ septic system and field bed location (where applicable);
- ☐ drainage swales;

Appendix B - Site Statistics Table

The following Site Statistics Table must be completed and shown on the comprehensive plot plan or in a separate letter.

Zoning				
Property Use(s)				
		Required	Provided	Reference
Property Information	Lot Area			
	Lot Frontage			
	Lot Depth			
	Front Yard			
	Rear Yard			
	Side Yard 1 (Corner / Interior)			
	Side Yard 2 (Corner / Interior)			
	High Water Mark Setback			
	Shoreline Buffer Depth			
	Clearing of Buffer Area			
Building Information	Building Area			
	Gross Floor Area			
	Net Floor Area			
	Storeys Above Grade			
	Storeys Below Grade			
	Building Height			
	Number of Dwelling Units			
Access. Bldgs	Building / Structure Area			
	Building / Structure Height			
	Permitted Encroachments			
Calculations	Density - Units per Hectare			
	Density - Area per Unit (Sq.m)			
	Total Lot Coverage %			
	Accessory Lot Coverage %			
Parking Provisions	Parking Calculation Ratio / Requirement			
	Spaces located in structure / garage			
	Barrier-Free Spaces			
	Bicycle Spaces			
	Loading Spaces			
	Width of Driveway			
	Width of Parking Aisles			
	Parking Setback from Street line			
Landscaping	Site Triangle Dimension(s)			
	Landscape Open Space %			
	Planting Strips – Width & Screening Device			
	Landscape Area at Public Roads			
	Privacy Yards			
	Courtyard Between Buildings			
	Location of Refuse Storage			
Fire Safety	Fire Hydrants			
	Fire Access Route			
	Fire Flows			

Appendix C

Private Servicing and Grading Certification Requirements February 16, 2024

I. Construction prerequisites:

1.1. Pre-construction Survey (For Developments Subject to Site Plan Control)

A preconstruction survey of all existing infrastructure within the right of way (ROW) affected by the work must be submitted to the City prior to construction activity within the ROW. The survey must include photos and clearly identify and locate all pre-existing conditions.

The developer should also confirm that all existing topographic and as-built information presented on the approved design drawings accurately reflects the existing field condition.

II. Certification package requirements:

The following support documentation will constitute the minimum requirements for acceptance of the works:

1.1. Letter of General Conformance for services onsite and works within the right of way (for Developments with water service $\geq 100\text{mm}$ dia., or “private storm/sanitary sewer services” as defined in the Ontario Building Code.)

Provide a General Conformance letter signed and sealed by a Professional Engineer verifying that all servicing works within the site have been installed in general conformance with the approved project drawings and specifications.

For works within the Municipal Right of Way, the letter must certify that the servicing and road works completed in the municipal right of way have been installed under full time supervision and were constructed in accordance with City Standards and Specifications.

1.2. Watermain/service Certification (for Developments with water service $\geq 100\text{mm}$ dia.)

1.2.1. Bedding Gradation Analysis (R.O.W. works only)

A bedding gradation analysis from a certified lab must be provided to verify the bedding conforms to the minimum gradation requirements defined in Table 2A of GSSS 1010.

1.2.2. Bedding Compaction (R.O.W. works only)

Bedding compaction results are not required to form part of the certification package.

1.2.3. CGS – Watermain Test Report / Procedures

A City of Greater Sudbury Watermain Test Report / Procedures form must be completed in full and submitted to both the Manager of Construction Services and the Chief Field Inspector prior to connection to the existing main.

1.2.4. Water Quality Test Results

The certification package must include results of the water quality tests performed in conjunction with the CGS – Watermain Test Report/Procedures. These tests must indicate that the minimum requirements of the Ministry of the Environment – Ontario Drinking Water Objectives have been met. These results are to be forwarded to the Manager of Construction Services and the Chief Field Inspector.

1.2.5. Tracer Wire Field Inspection Report (R.O.W. works only; however, tracer wire should also be installed throughout the site.)

For all non-metallic water services and mains, submit a “Tracer Wire Field Inspection Report” completed by a third party.

1.3. Sanitary/Storm Sewer and Subdrain Certification (for Developments with “private storm/sanitary sewer services” as defined in the Ontario Building Code.)

1.3.1. Bedding Gradation Analysis (R.O.W. works only)

A bedding gradation analysis must be provided from a certified lab to verify the bedding conforms to the minimum gradation requirements defined in Table 2A of GSSS 1010.

1.3.2. CCTV Camera Inspection

Results of the CCTV camera inspection must indicate that the sanitary sewer, storm sewer and subdrain was placed on the proper alignment without damage, sags or debris.

Close circuit television (CCTV) camera inspections requirements (of sewer mains) are as follows:

- All digital data are to be coded following the WRc Manual of Sewer Condition Classification, WRc 4th edition, American Society of Civil Engineers or a comparable manual.
- All videos are to be coded utilizing WRc codes, and provided in .wmv format along with the database.mdb (or other approved .mxd) files.
- All photos are to be provided in .jpg and reports in .pdf.

All digital image recordings shall be of quality that all minor defects (hairline cracks, etc.) be clearly visible, and in the main sewers, the colour of the pipe inspected be true to the actual conditions.

Video files shall commence with a minimum 10 second data information screen including: data and time of inspection, location description, contractor and operator name.

Technicians assigned to data gathering shall have a minimum of three (3) years related experience in sewer inspection, using Closed Circuit Television Equipment and Data Collection and shall be capable of report all conditions using WRc defect codes.

The Engineer shall confirm they have reviewed the CCTV reports and will provide their comments. Comments will verify the pipes are satisfactory and/or identify areas of damage, sags, debris etc. that should be discussed with City representatives prior to City acceptance.

1.3.3. Pressure Leakage Tests

Infiltration or exfiltration testing shall be completed and meet the requirements of OPSS 410. Where exfiltration testing is required, sanitary sewer test results shall be submitted. Where infiltration testing is required, storm and sanitary test results shall be submitted. Where infiltration or exfiltration testing cannot be conducted on service connections a CCTV camera inspection may be accepted upon approval of Development Engineering.

1.3.4. Maintenance Hole Leakage Tests

Sanitary sewer maintenance holes shall be tested for leakage as per GSSS 407.07.25

1.4. Roads / Curbs Certification (R.O.W. works only)

1.4.1. Backfill Material

A letter must be provided from the engineer stating that the backfill material conforms to City requirements and the site specific geotechnical report. This letter must also state that sufficient compaction was obtained on this material.

1.4.2. Base Material – Granular “B” (Greater than 9m2)

a. Gradation Analysis

A gradation analysis must be provided from a certified lab to verify the Granular “B” conforms to the minimum gradation requirements defined in Table 2A of GSSS 1010.

b. Compaction Tests

Provide a certification letter signed and sealed by a Professional Engineer to verify that compaction conforms to OPSS 501 and GSSS 501.

The letter must also confirm that the Granular B, Type II has been compacted using single drum, vibratory, smooth steel drum rollers, with a minimum static drum weight of 8 tonnes (8000 kilograms) and minimum operating dynamic force of 150 kilonewtons. One hundred percent roller pass coverage with a minimum number of four passes shall be provided. Each roller pass shall overlap the coverage of the preceding pass by a minimum of 0.5 m.

Note that the material specified on the City approved construction drawings must be used. If an alternate type of Granular ‘B’ material is to be contemplated, this must be done as part of the construction drawing review process.

1.4.3. Base Material – Granular “A” (Greater than 9m2)

a. Gradation Analysis

A gradation analysis must be provided from a certified lab to verify the Granular “A” conforms to the minimum gradation requirements defined in Table 2A of GSSS 1010.

b. Compaction Tests

Results of the compaction testing must indicate that the Granular "A" material has been compacted according to the requirements set out in GSSS 501 and Method A of OPSS 501.

Compaction testing must be performed at 15 metre intervals along the roadway in a 3-point cross-section and all test results must be supplied to the City.

1.4.4. Asphalt Works(Greater than 9m2)

a. Materials Analysis

The analysis of the asphalt material in accordance with GSSS 310 and OPSS 310 must be provided from a certified lab to show that this material conforms to the minimum requirements defined in OPSS 1150 and the job mix formula reviewed and approved by the Developers Engineer prior to placement.

If a field adjustment of the Job mix formula is required, after placement, this must be provided to the Developers Engineer 24hrs after QA test results have been completed. The Developers Engineer is responsible for approving the Job Mix Formula changes. Field adjustments to the JMF shall be limited as per GSSD 310 and OPSS 1150. Any borderline results in the field adjusted Job Mix Formula will be considered rejectable.

b. Compaction Tests

Results of the compaction testing must indicate that the asphalt material has been compacted according to the requirements set out in GSSS 310 and OPSS 310.

Compaction testing must be performed at 15 meter intervals along the roadway in a 3-point cross-section for each lift of material and all test results must be supplied to the City.

1.4.5. Concrete works(Greater than 3 cu.m.)

a. Concrete Mix Design

Provide a copy of the concrete mix design and the applicable performance requirements as required to verify compliance with OPSS.MUNI 1350.

b. Slump, Air and Compressive Strength of Concrete

- i. For concrete curb and gutter systems, concrete testing must indicate that the concrete used meets the requirements set out in OPSS 353 and GSSS 353.
- ii. For sidewalk installations, concrete testing must indicate that the concrete used meets the requirements set out in OPSS 351 and GSSS 351.
- iii. For any other concrete works, materials, construction, and testing must comply with the relevant GSSS, OPSS, GSSD, OPSS, and any additional requirements set forth on the City approved construction drawings.

The submitted compressive strength test results from a certified lab must meet the requirements set out within the relevant GSSS and OPSS (for example, if 28-day test results are the standard, the submitted results must meet this requirement).

1.5. Stormwater Management Facilities (for developments, not exempt under section 2.15 of the CGS Stormwater Management Guide)

The certification package for stormwater management facilities (where applicable) must be in the form of a letter signed and sealed by a Professional Engineer stating that the storm water management facilities have been constructed in compliance with the approved construction drawings and Stormwater Management Report.

1.6. Additional Requirements

In addition to the above noted requirements, the following will form part of the certification package:

1.6.1. Inspection Photos (R.O.W. Work only for Developments Subject to Site Plan Control)

Digital photographs of the installation of each major appurtenance installed (maintenance holes, catchbasins, valves, hydrants) must be provided. These photographs must be clearly labeled and provide sufficient as-constructed information (number of grade adjustment rings, height of hydrant above grade, etc.).

1.6.2. As-built Drawings (For Developments Subject to Site Plan Control)

As-built drawing requirements are as follows:

- Where City as-built files in CAD or TIFF are available these must be updated with the current as-constructed information to the City's as-built standards (see links below), including but not limited to all new or modified pipe sizes, lengths, material, inverts, structures, municipal and private fire hydrants, curbs, driveway entrances, sidewalks, property lines, easements, building footprints, etc.
- Where City as-built files in CAD or TIFF are not available, CAD versions of the approved construction drawings must be provided showing as-constructed information for the newly constructed work to the City's as-built drawing standards (see links below).
- Where new property lines or easements are created as part of the proposed work, the Property Fabric must be labeled as per CGS standards including but not limited to Pin Blocks & PINs, property plans including M-Plans, S-Plans, 53R-Plans, easements, including easement number and dimensions and type of easement.
- All drafting for as-constructed information must conform to CGS standards. See Drafting Standards Manual / Drafting procedures (links below) for naming conventions, text styles & fonts, hatching, scales, blocks, colour & pen codes, line types and layering conventions.

Links to City Standards for As-constructed Drawings:

Drafting Example Drawings:

- <https://www.greatersudbury.ca/drafting-example-drawings/>

Drafting Procedures:

- <https://www.greatersudbury.ca/drafting-procedures/>

Surveying Standards:

- <https://www.greatersudbury.ca/surveying-standards/>

In addition to the above requirements, if there are significant as-constructed changes from the approved site plan drawings, as built drawings for the site in PDF format must be provided.

1.6.3. Certification Letter for rock faces

A certification letter for all new rock faces shall be provided and must be sealed by a Professional Engineer prequalified through the MTO. Refer to the following link for a list of Prequalified Engineers.

<https://www.raqsbc.mto.gov.on.ca/login/raqs.nsf/English/Graphic/frmViewApprovedConsultants?OpenForm&Start=1&Count=1000&Expand=2.7&Seq=4>

The certification letter shall indicate and confirm the following:

- i. All required pedestrian and/or vehicle guards/fencing have been installed.
- ii. The rock face meets a Class B or Class C hazard rating with 100% rock fall debris retention based on the Ministry of Transportation publication "RHRON: Ontario Rockfall Hazard Rating System – Field Procedures Manual" and that the rock face has been cleaned and is free of any loose or hazard rocks.
- iii. Freeze thaw cycles acting on the rock face will result in undermining of the adjacent properties.
- iv. Outline a monitoring and maintenance plan for the rock face.

1.6.4. CCTV camera inspection of existing sewer mains and services

Where rock blasting has occurred for the installation of sewer mains or services, or where the main has been crossed below, a CCTV inspection of the existing adjacent mains and services must be completed as per Item 1.3.2 above. It is advisable that these mains and services be CCTV camera inspected as part of the pre-construction survey.

III. CONSTRUCTION APPROVAL AND INSPECTION (For Developments Subject to Site Plan Control)

Upon the City's acceptance of the Certification Package, the developer can request an inspection for release of deposits once all work identified in the site plan control agreement has been completed. The City will conduct their inspection within 3 weeks (During the months of May through October). All Deficiencies identified in this inspection must be corrected prior to the release of any deposits. Partial deposit releases may be considered depending on the deficiencies identified.

The City will provide only one inspection at no charge. A fee will be assessed, in accordance with City Council's Policy, for any subsequent inspections required to determine if the deficiencies have been rectified.

Rev 1-2024-02-16

- Update title, links to as-built requirements, time to complete inspections, and change Site Plan Control Engineer to Development Engineering
- Clarify where certification is required for development not subject to Site Plan Control