

## Subdivision and site plan submission and design requirements

This list is to be used as a guide. It is not to be considered an exhaustive list and shall not preclude the designer from ensuring quality and completeness of the design submission.

### GENERAL

- The following is a list of typical drawings and reports that are required as part of the site plan or subdivision design approval process:
  - Site Servicing Drawing;
  - Grading plan.
  - Storm Drainage Plan (may be incorporated with Servicing Brief/Stormwater Management Report).
    - Sanitary Drainage Plan (may be incorporated with Servicing Brief/Stormwater Management Report; may not be warranted for site plans or small developments, however, average and peak sanitary sewage discharge rates and infiltration allowance computations are required).
    - Erosion and Sedimentation Control Plan (depending on extent of work, erosion and sedimentation information may be shown on Grading Plan).
    - Plan & Profile Drawings (always required for subdivision designs, as well as site plans if warranted by design complexity).
    - Composite Utility Plan (including sign off from all applicable utility companies).
    - Geotechnical Report.
    - Servicing Brief/Stormwater Management Report (defines projects, describes proposed servicing and stormwater management plan).
    - Storm and sanitary sewer design sheets.
- Depending on site specific conditions and the proposed type of development, the following additional items may also be required:
  - Site Plan (meeting all planning requirements).
  - Hydraulic Network Analysis Report (water distribution system to MOE guidelines and Fire Underwriters Survey requirements).
  - Traffic Study.
  - Site and Street Lighting Plan.
  - Stormwater Management Ponding Plan.
  - Noise attenuation study.
  - Hydrogeological report.
- Proposed development shall not adversely impact existing adjacent development/properties.
- All survey and topographical information shall be geodetically referenced.

- Drawings shall include topographical and/or survey information surrounding the proposed site.
- Approval from the South Nation Conservation Authority.
- All engineering design drawings and reports are to be sealed and signed by a professional engineer. Drawings and reports that are not sealed and signed will be considered incomplete and returned to the proponent.
- Three sets of all relevant drawings and reports in hard copy format. Digital submissions (i.e. PDF, AutoCAD, etc...) will not be accepted.
- Approval from the United Counties of Prescott-Russell for proposed new entrances onto or changes to County Roads.
- The Town will not sign Ministry of the Environment Application forms until all drawings, reports, calculations, etc... are approved.
- The Owner shall not proceed with any construction work until authorized to do so by the municipality once all approvals/permits are obtained.

## **SERVICING REQUIREMENTS**

- Proposed and existing sewers and watermains to be identified.
- Pipe material and classes for proposed sewers and watermains shall be specified.
- Valves located on watermains 300 mm in diameter shall be installed in a valve chamber. Below 300 mm in diameter, valve boxes shall be required.
- All easements and easement dimensions shall be clearly identified.
- Drop pipes shall be required for sanitary sewers where difference in elevation between incoming and outgoing sewer is greater than 0.6 m.
- Safety landings/platforms required by the OHSA for maintenance holes with depths greater than 5.0 m.
- Watertight maintenance hole covers per OPSD shall be specified for sanitary sewers located within designated ponding areas.
- Watermain shall be designed with minimum of 2.4 m below centerline.
- Separation of watermain and sewers shall be in accordance with MOE Procedure F-6-1 (see attached).
- Watermain valve spacing and location:
  - Two valves required at tee intersection
  - Three valves required at cross-intersection
  - Mains 150mm to 406mm – line valve at 300 m spacing
  - Mains 610mm and larger – line valve at 600 m spacing
- Plastic water service tubing approved for use with municipal potable water systems (i.e. IPEX Gold Stripe) shall be used instead of copper tubing for smaller diameter services (50 mm diameter and smaller). Copper tubing shall not be permitted.
- Storm and sanitary sewer system design shall be in accordance with applicable municipal and provincial guidelines.
- Submissions shall be in accordance with Ontario Building Code and local Fire Department requirements for servicing and fire protection.
- Provision of fire protection for subdivisions and private sites shall meet with requirements of the Fire Underwriters Survey.

- A minimum of one and a maximum of three (3) concrete adjustment rings shall be provided for each concrete structure such as maintenance holes, catch basins, ditch inlets, etc...

## **GRADING REQUIREMENTS**

- Gradients on lawns and driveways at 2% minimum and 6% maximum.
- Minimum swale slope = 1.5% (below 1.5% subdrain with positive outlet required).
- Driveway and rear yard slope shall be identified on drawing.
- Existing and proposed elevations at lot corners shall be shown on drawing.
- Proposed grading to tie in with existing elevations from adjacent sites (i.e. match existing grades).
- Underside of footing and finished floor elevations shall be identified.
- A professional engineer shall design retaining walls greater than 1 m in height.
- Catchbasins at low points shall have emergency relief point at no more than 0.3 m higher than the catch basin top of grate elevation.
- Parking lot ponding shall not exceed 0.3 m, unless written approval from owner is provided.
- Roadway longitudinal slopes shall not be less than 0.5%.
- Geotechnical engineering report recommendations shall be implemented in consideration of services, pavement structures, slope stability, erosion control, grading (cuts & fills), grade raise restrictions, foundations, sewer/watermain pipe bedding, pool installation, etc...
- Grading for roadways, lawns and landscaped areas shall provide overall continuity of drainage.
- Grading plans shall permit positive drainage away from proposed septic beds.
- Private approaches servicing parking areas of public, institutional, commercial, and industrial properties and multiple residential dwellings, shall be designed based on a minimum slope of 0.5% and maximum slope of 2%.

## **DRAINAGE REQUIREMENTS**

- Stormwater management plan shall be in accordance with \_\_\_\_\_ “Storm Drainage Study” prepared by \_\_\_\_\_.
- Drainage impact to or accommodation of drainage from adjacent properties shall be considered.
- Proposed site drainage shall be self-contained (i.e. do not drain off-site to adjacent properties).
- Major overland flow route shall be clearly identified. Major overland flow to pond or other approved outlet.
- Storm intensity-duration-frequency statistical information used in design shall be per the Town of Hawkesbury Sewer Design Guidelines.

NOTE: Submissions deemed incomplete will not be reviewed and will be returned to the proponent.

## **INSPECTIONS CHECKLIST FOR MUNICIPAL ROADS**

- Pre-construction photographic survey;
- Pre-construction meeting record (minutes of meeting);
- Pre-construction CCTV inspection report;
- Contractor to provide granular/asphalt sources. Submit Job-mix Formula (JMF) for Hot Mix asphalt;
- Contractor to provide Notice of Project for Ministry of Labour. This document must be posted on-site;
- Contractor to provide Proof of Insurance naming the Municipality, Consulting Engineer, Town's Engineer, Geotechnical Engineer, etc.;
- Contractor to provide a valid WSIB certificate for the project;
- Contractor to submit his list of sub-contractors for the project;
- If rock blasting is anticipated, a pre-blast survey must be carried out by the Contractor per OPSS 120;
- Compaction testing on subgrade, granular subbase, base, pipe bedding and cover, etc. The geotechnical engineer for the project should be retained by the Proponent to provide periodic site observations during various stages of construction;
- Photographic record during construction operations;
- Field diary of construction operations;
- Concrete testing per OPSS 1350;
- Hot mix asphalt testing per OPSS 1150;
- Sanitary sewer leakage testing per OPSS 410;
- Disinfection and Commissioning (including swabbing) of water supply system per MOE's Procedure for Disinfection of Drinking Water in Ontario (latest revision) and AWWA C651 - Standards for Disinfecting Watermains (latest revision);
- Post-construction CCTV inspection for storm and sanitary sewers per OPSS 409;
- As-constructed drawings for sewers/watermains/service laterals;
- As-constructed drawings with road subgrade/top of Granular "B"/top of Granular "A"/top of pavement elevations at the centre line and edge of road;
- As-constructed drawing of utilities (Hydro, Bell, Cable and Gas);