



PLEASE PRINT

PDE - 3030 - 14

Department of Planning, Development and Engineering

MAJOR SUBDIVISION – EXTENSION TO SERVICES CHECKLIST

DESCRIPTION

SECTION 1

The following checklist outlines all of the information necessary to be provided with your Major Subdivision Application with extension of Municipal Services. **Major Subdivision** means the dividing of any land, whether in single or joint ownership into more than five (5) lots for the purpose of development. A separate application, fee(s), and drawings must be submitted for any development requiring a Building Permit.

APPLICATION AND FEE

SECTION 2

Completed By Applicant	Office Use Only	
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Application with property owner's signature and the proposed zone.

Application fee. (Please see following link for fee schedule:
<http://www.stjohs.ca/living-st-johs/city-services/planning-and-development/fee-schedule>)

1.0 LEGAL SURVEY AND DESCRIPTION DEMONSTRATING PROPOSED SUBDIVIDE OF LOT(S)

SECTION 3

All work performed must conform to the following requirements as well as the standards set out within the current version of the ANLS "Manual of Practice".

Preferred drawing size is legal size (215 mm wide x 315 mm long) but drawings as large as ISO A1 (594 mm wide x 841 mm long) are acceptable for larger developments.

Scale is 1:500 – 1:100. Please indicate a north arrow on drawing.

Plot each lot, lot number, and area in square metres.

Plot the length and bearing of each boundary line for the overall property, noting the property area in square metres.

Plot two boundary vertices, in opposite corners of the property boundary, indicating the NAD 83 northing and easting coordinates. The preference is a coordinate at the most northwestern vertex and a second coordinate at the most southeastern vertex of the property boundary.

Plot the length and bearing of each boundary line for all subdivisions, lots, streets, pedestrian ways, right-of-ways, and easements. The radius, central angle, length of arc, chord bearing and distance, point of curve, and point of tangency shall be given for each curved line.

Indicate the ROW and width of each street.

Indicate the name and Registry of Deeds number of the owner of all abutting lands.

Plot any existing infrastructure, rivers, wetlands, floodplains, or buffers.

Plot any proposed buildings, structures, parking areas, roads, and access points to the existing City road network. Provide a table which summarizes the total area of each proposed item in square metres. Indicate building height and number of storeys, and the use planned for each building.

Newfoundland Land Surveyor certification stamp and signature.

Indicate two Newfoundland 3 degree Modified Transverse Mercator reference monuments and their coordinates.

Provide an electronic copy of the signed Legal Plan and description in PDF format.

2.1 DRAFTING

ISO A1 drawing (594mm wide x 841mm long).

Scale 1:500 horizontal. Indicate north arrow.

Include *Sheet*, *Project Name*, *Engineering Consultant*, and *Developer* information fields.

Stamp and signature of Professional Engineer registered in the Province of NL.

Include *Revisions/Issued*, *Notes*, *Legend*, *Drawing No.*, *Drawn By*, and *Checked By* information fields.

2.2 TOPOGRAPHIC

Plot and label all watercourses and bodies of water.

Plot and label all wetlands, floodplains and associated buffers.

Plot abutting properties and indicate ownership and Registry of Deeds registration number.

Plot each lot, lot number, and area in square metres.

Plot the length and bearing of each boundary line for the overall property, noting the property area in square metres to two decimal places.

Plot two boundary vertices, in opposite corners of the property boundary, indicating the NAD83 northing and easting coordinates. The preference is a coordinate at the most northwestern vertex and a second coordinate at the most southeastern vertex of the property boundary.

Plot the length and bearing of each boundary line for all subdivisions, lots, streets, pedestrian ways, right-of-ways, and easements. The radius, central angle, length of arc, chord bearing and distance, point of curve, and point of tangency shall be given for each curved line.

Indicate the width of each street ROW (in metres), asphalt surface, and street names (proposed as Street 'A', 'B', etc.).

Plot any existing infrastructure, rivers, wetlands, floodplains, or buffers.

Plot any proposed buildings, structures, parking areas, road.

Indicate construction and/or phase boundary.

Indicate front, rear, and side yard setbacks.

Indicate cross-section showing road structure for proposed streets.

The plan must include a stamp and signature of a Professional Engineer licensed to practice in the Province of NL.

Indicate at least two Newfoundland 3 degree Modified Transverse Mercator reference monuments with their coordinates and elevations.

Indicate all existing and proposed Geodetic benchmarks along with their NAD83 coordinates and elevations.

Indicate the location of any existing or proposed Canada Post community mailboxes.

Indicate proposed grades for corners of the lots, finished floor elevations for each house, and proposed grades at the corners and sides of each house. Provide additional elevations as necessary to demonstrate surface runoff will be directed away from adjacent properties.

Indicate all reinstatement required after servicing and site work is complete.

Where the proposed development is in close proximity of another municipality, clearly indicate the municipal boundary and the respective municipalities.

2.3 INFRASTRUCTURE

2.3.1 WATER SUPPLY

Water mains and hydrant leads (existing and proposed) - indicate location, diameter (mm), material and pressure class.

Water main, hydrant, air release valves, tees, and bends (existing and proposed) - indicate location, and diameter (mm).

Hydrants (existing and proposed) - indicate location.

PRV chamber (existing and proposed) - indicate location.

Water supply pump station (existing and proposed) - indicate location.

2.3.2 SANITARY SEWER

Sanitary sewer mains (existing and proposed) - indicate location, diameter (mm) and directional arrows.

Sanitary sewer manholes (existing and proposed) - indicate location and manhole label.

Sanitary sewer pump station (existing and proposed) - indicate location.

Sanitary sewer forcemains (existing and proposed) - indicate location and diameter (mm).

Sanitary sewer mains (existing and proposed) - indicate location and diameter (mm).

2.3.3 STORM SEWER

Storm sewer mains (existing and proposing) - indicate location, diameter (mm), and directional arrows.

Storm sewer manholes (existing and proposed) - indicate location and manhole label.

Storm sewer catch basins (existing and proposed) - indicate location and catch basin label.

Storm sewer pipes from catch basins and ditch inlets (existing and proposed) - indicate location and diameter (mm).

Storm sewer ditch inlets (existing and proposed) - indicate location and label.

Storm sewer headwalls (existing and proposed) - indicate location and label.

Drainage ditch culverts (existing and proposed) - indicate location and diameter (mm).

Drainage ditches (existing and proposed) - indicate location.

Berms (existing and proposed) - indicate location.

Stormwater detention ponds and underground structures (existing and proposed) - indicate location and label.

2.3.4 RIVERS - BRIDGES AND CULVERTS

Bridges (existing and proposed) - indicate location, type, dimensions (mm), and label.

Culverts (existing and proposed) - indicate location, dimensions (mm), and label.

2.3.5 UTILITIES

Utility poles and guy wire anchors (existing and proposed) - indicate location.

Underground conduit (existing and proposed) - indicate location and diameter.

Transformer pads (existing and proposed) - indicate location.

2.3.6 TRAFFIC

Underground electrical conduit (existing and proposed) - indicate location and diameter (mm).

Poles (existing and proposed) - indicate location.

Junction boxes (existing and proposed) - indicate location.

Controller pads (existing and proposed) - indicate location.

Inductive traffic loops (existing and proposed) - indicate location.

Bus laybys (existing and proposed) - indicate location.

Pedestrian crossings (existing and proposed) - indicate location.

Signs/billboards (existing and proposed) - indicate location and dimensions.

Canada Post super mailboxes (existing and proposed) - indicate location.

Parking areas (existing and proposed) - indicate location.

Loading bays (existing and proposed) - Indicate location.

Street lighting (existing and proposed) - indicate location.

Paraplegic ramps (existing and proposed) - indicate location.

2.3.7 LANDSCAPING

Plot location of trees by symbol (each symbol unique top size and type).

Plot shrubbed areas.

Label new landscaped areas and existing areas to be retained.

Indicate location of any existing trees on public lands adjacent to the site.

3.0 PLAN & PROFILE CHECKLIST

SECTION 5

3.1 DRAFTING

ISO A1 drawing (594mm wide x 841mm long).

Plan scale 1:500 horizontal. Indicate north arrow.

Profile scale 1:500 horizontal; 1:50 or 1:100 vertical.

Include *Sheet, Project Name, Engineering Consultant, and Developer* information fields.

Stamp and signature of Professional Engineer registered in Province of NL.

Include *Revisions/Issued, Notes, Legend, Drawing No., Drawn By, and Checked By* information fields.

3.2 INFRASTRUCTURE

3.2.1 WATER SUPPLY

Water mains and hydrant leads (existing and proposed) - indicate location, elevation, diameter (mm), material, pressure class and depth.

Water main, hydrants, air release valves, tees and bends (existing and proposed) - indicate elevation, location, and diameter (mm).

Hydrants (existing and proposed) - indicate location on plan and profile views, and NAD83 coordinates on plan for all valves and hydrants.

PRV chamber (existing and proposed) - indicate elevation and location.

Water supply pump station (existing and proposed) - indicate location.

3.2.2 SANITARY SEWER

Sanitary sewer mains (existing and proposed) - indicate location, invert elevations, diameter (mm), slope, length, and material.

Sanitary sewer manholes (existing and proposed) - indicate location, NAD83 coordinates, invert elevation, top elevation, and manhole label.

Sanitary sewer pump station (existing and proposed) - indicate invert elevations, type, number of pumps, pump manufacturer, and location.

Sanitary sewer forcemains (existing and proposed) - indicate location, invert elevation, diameter (mm), and material.

Sanitary sewer flow chamber (existing and proposed) - indicate invert elevations, and location.

3.2.3 STORM SEWER

Storm sewer mains (existing and proposing) - indicate location, invert elevations, diameter (mm), slope, length, material, and directional arrows.

Storm sewer manholes (existing and proposed) - indicate location, NAD83 coordinates, invert elevation, top elevation, and manhole label.

Storm Sewer Catch Basins (Existing and Proposed) - indicate location, NAD83 coordinates, sump elevation, invert elevations, top elevation and catch basin label. Indicate diameter (mm) and material of catch basin leads.

Storm sewer pipes from catch basins and ditch inlets (existing and proposed) - indicate location, elevations, diameter (mm), slope, length, and material.

Storm sewer ditch inlets (existing and proposed) - indicate location, NAD83 coordinates, sump elevation, top elevation, grate slope, and label.

Storm sewer headwalls (existing and proposed) - indicate location, NAD83 coordinates, invert elevation, top elevation and label.

Drainage ditch culverts (existing and proposed) - indicate location, NAD83 coordinates for inlet and outlet, invert elevation, diameter (mm), slope, length, and material.

Drainage ditches (existing and proposed) - indicate location, invert elevations, longitudinal slope, transverse side-slopes, bottom width, top width, and size/type of erosion protection. Provide details and/or cross-sections.

Berms (existing and proposed) - indicate location, top elevation, height, side-slopes, and size/type erosion protection. Provide details and/or cross-sections.

Stormwater detention ponds and underground structures (existing and proposed) - indicate location, elevations, NAD83 coordinate of centroid, volume (cubic metres), maximum depth, minimum depth, freeboard, side-slopes, longitudinal slope, outlet control structure, emergency overflow spillway, inlets, and label.

3.2.4 TRAFFIC

Street centerline vertical ground profile (existing and proposed), indicating grades of road.

Label vertical curves; indicating length of VC, K-values, VPI, BC, EC, stations, and elevations.

Label horizontal curves; indicating Point of Intersection (PI) with NAD83 coordinates, BC, EC, Stations, Deflection Angle, Radius, Tangent Length, and Length of Curve.

Indicate street names (existing and proposed) as Street 'A', 'B', etc.

Indicate centerline road stations.

3.2.5 RIVERS - BRIDGES AND CULVERTS

Bridges (existing and proposed) - indicate location, type, dimensions (mm), NAD83 coordinates of inlet and outlet, and label. Provide profile of river bottom and top-of-bank indicating proposed erosion protect and side-slopes.

Culverts (existing and proposed) - indicate location, type, dimensions (mm), NAD83 coordinates of inlet and outlet, and label.

4.0 GRADING PLAN CHECKLIST

SECTION 6

4.1 DRAFTING

Preferred drawing size is ISO A1 (594mm wide x 841mm long) but drawings as small as Legal Size (215mm wide x 315mm long) are acceptable for small developments.

Scale 1:500. Indicate north arrow.

Include *Sheet*, *Project Name*, *Engineering Consultant*, and *Developer* information fields.

Stamp and signature of Professional Engineer registered in the Province of NL.

Include *Revisions/Issued*, *Notes*, *Legend*, *Drawing No.*, *Drawn By*, and *Checked By* information fields.

4.2 TOPOGRAPHIC

Plot property boundary.

Plot two boundary vertices, in opposite corners of the property boundary, indicating the NAD83 northing and easting coordinates. The preference is a coordinate at the most northwestern vertex and a second coordinate at the most southeastern vertex of the property boundary.

Plot each lot, lot number, maximum building footprint allowed by Development Regulations, and driveway footprint.

For each lot indicate existing ground elevations.

For each lot indicate proposed finished elevations at: front and back of foundation walls; midpoint of side boundary and/or building footprint; lot corners; and elevation of main entrance threshold.

For each lot show drainage pattern arrows.

Indicate the ROW, width of asphalt, curb & gutter, sidewalk and street names (proposed as Street 'A', 'B', etc.).

Indicate proposed centerline elevations of road in minimum 20m intervals.

Indicate location and size of proposed service laterals and curb stop.

Indicate location of proposed Canada Post super mailboxes.

Indicate utility company easements and elevations along the easement boundaries.

Indicate elevations of any proposed retaining walls, berms, or drainage swales.

Indicate location of any existing/proposed floodplains, wetlands, buffers, and watercourses.

The steepest allowable side slope is a 2 (horizontal) to 1 (vertical) ratio.

5.0 SANITARY SEWER DRAINAGE AREA PLAN CHECKLIST

SECTION 7

5.1 DRAFTING

ISO A1 drawing (594mm wide x 841mm long).

Scale 1:2500 or 1:1250 horizontal. Indicate north arrow.

Include *Sheet*, *Project*, *Engineering Consultant*, and *Developer* information fields.

Stamp and signature of Professional Engineer registered in Province of NL.

Include *Revisions*, *Notes*, *Legend*, *Drawing No.*, *Drawn By*, and *Checked By* information fields.

5.2 TOPOGRAPHIC

Plot two points, in opposite corners of the drainage area, indicating the NAD83 northing and easting coordinates. The preference is a coordinate at the most northwestern drainage area boundary and a second coordinate at the most southeastern drainage area boundary.

Plot any existing and proposed sanitary infrastructure (indicating size/diameter, direction of flow arrows and manhole labels), rivers, wetlands, floodplains, buffers, recreational areas, parks, and municipal boundaries (if applicable).

Plot any existing/proposed buildings, structures, lots (indicate lot numbers for proposed lots), parking areas, and roads (indicate existing or proposed street names).

Plot overall drainage area boundary along with all subbasins (indicating land uses, areas in hectares, and point of discharge into the existing/proposed system). Future and existing stages/phases must be clearly identified.

Plot most recent City contours at 1m intervals.

5.3 DELIVERABLES

Provide a PDF and three hardcopies of the sanitary sewer drainage area plan containing, as a minimum, the above noted items.

Provide a NAD83 georeferenced ArcGIS polygon shapefile of the overall drainage area boundary and any subbasins.

Provide an electronic Excel spreadsheet and a hardcopy of the same in PDF in the City's standard format containing formulae and supporting computations demonstrating that the proposed sewers have adequate capacity.

6.0 STORM SEWER DRAINAGE AREA PLAN CHECKLIST

SECTION 8

6.1 DRAFTING

ISO A1 drawing (594mm wide x 841mm long).

Scale 1:2500 or 1:1250 horizontal. Indicate north arrow.

Include *Sheet, Project, Engineering Consultant, and Developer* information fields.

Stamp and signature of Professional Engineer registered in Province of NL.

Include *Revisions, Notes, Legend, Drawing No., Drawn By, and Checked By* information fields.

6.2 TOPOGRAPHIC

Plot two points, in opposite corners of the drainage area, indicating the NAD83 northing and easting coordinates. The preference is a coordinate at the most northwestern drainage area boundary and a second coordinate at the most southeastern drainage area boundary.

Plot any existing and proposed storm infrastructure (indicating size/diameter, direction of flow arrows and manhole labels), rivers, wetlands, floodplains, buffers, recreational areas, parks, and municipal boundaries (if applicable).

Plot any existing/proposed buildings, structures, lots (indicate lot numbers for proposed lots), parking areas, and roads (indicate existing or proposed street names).

Plot overall drainage area boundary along with all subbasins (indicating land uses, areas in hectares, and point of discharge into the existing/proposed system). Future and existing stages/phases must be clearly identified.

Plot most recent City contours at 1m intervals.

6.3 DELIVERABLES

Provide a PDF and three hardcopies of the storm sewer drainage area plan containing, as a minimum, the above noted items.

Provide a NAD83 georeferenced ArcGIS polygon shapefile of the overall drainage area boundary and any subbasins.

Provide an electronic Excel spreadsheet and a hardcopy of the same in PDF in the City's standard format containing formulae and supporting computations demonstrating that the proposed sewers have adequate capacity.

7.0 XPSWMM STORMWATER DETENTION CHECKLIST

SECTION 9

The following items must be submitted to the City for review when stormwater detention is required for a particular development (all information must be georeferenced to the City's NAD83 coordinate system):

PDFs of all pre-development and post-development drainage areas used in modeling which denote all proposed infrastructure, existing infrastructure in the immediate area, overall drainage area, subcatchments, watercourses, and contours. Note: infrastructure is defined as streets and driveways, buildings, manholes, catch basins, ditch inlets, headwalls, bridges, culverts, open channels, etc.

ArcGIS polygon shape files containing the pre-development and post-development drainage areas with subcatchments. There must two fields included in the shapefiles attribute table containing

- i. the area, in hectares, and
- ii. the percent impervious for each subcatchment.

An ArcGIS polygon shapefile for the proposed buildings.

An ArcGIS polygon shapefile for the proposed streets, parking areas and driveways.

The area of the street/parking areas must include the curb, gutter, and sidewalk.

An ArcGIS point shapefile containing a 1m elevation grid of the proposed development containing, but not limited to: lot grading elevations, street elevations (centerline, gutter, top of curb, back of sidewalk), side sloping, etc. Note: elevations should not be provided within the footprint of any proposed buildings.

PDFs of all construction drawings including: plan & profile drawings for the proposed infrastructure; detail drawings of the proposed detention facility, outlet control devices, and emergency overflow; and an overall plan indicating the proposed development in its entirety indicating adjacent infrastructure/structures in close proximity.

A fully functioning electronic XPSWMM model, or models, with all associated model files and supporting computations for all scenarios used to size and design the storm sewer infrastructure and detention facility.

A summary report in PDF providing:

- i. a tabular summary for each post-development scenario of the post-development peak flows into and out of the detention facility, the corresponding pre-development flow, the maximum elevation of the water surface within the facility, and the flow through the emergency overflow;
- ii. if nodal storage is used then a table must be included containing the design Elevation(m)-Storage Area(ha) curve for the detention facility; and
- iii. the recommended maximum storage detention volume and elevation required for the facility

Please mail completed form to:

Department of Planning, Development and Engineering
City of St. John's
P.O. Box 908
St. John's, NL A1C 5M2

For more information, please call: 576-6192