SUBDIVISION BY-LAW

FOR THE TOWN OF

NEW GLASGOW

1988

This 2003-2004 consolidation is prepared for purposes of convenience only. For accurate references recourse should be had to the official volumes.

This Subdivision By-law for the Town of New Glasgow which was adopted at a meeting of the New Glasgow Town Council held on May 30, 1988, is approved, pursuant to Section 24 of the *Municipal Affairs Act,* with the following amendments:

1) PART 3: Section 3 is amended by deleting clause (a) and substituting the following:

"AGREEMENT means a written contract entered into between the sub divider and the Town relating to the provision of services outlined in this by-law."

2) Section 3 is further amended by deleting clause (d) and substituting therefore the following:

"DEVELOPMENT OFFICER means the officer who is charged with the duty of administering this Subdivision By-law."

3) Section 3, clause (m) on page 2 is deleted and the following substituted:

"SANITARTY SEWER SYSTEM means the sanitary sewer system which is owned and maintained by the town, and includes forcemains and pumping stations."

4) Section 3 is further amended in clause (u), line one, by inserting immediately before the word "assessed" the words "is land."

5) Section 3 is further amended by deleting clause (w) and substituting the following:

"WATER SYSTEM means an assembly of pipes, fittings, control valves, hydrants and appurtenances owned and maintained by a Public Water Utility."

6) PART 4, Section 4, subsection (3) is amended by deleting in the last three lines the following sentence "The Development Officer will then forward all comments to the sub divider."

7) PART 5, Section 6 is amended in line seven by deleting the words "a preliminary" and substituting therefore the word "an".

8) Section 10, clause (c), is amended in line two by adding after the word "subdivision" in the following words "takes effect until a final plan of subdivision".

9) PART 6, Section 12, subsection (2), clauses (u), (v) and (w) are deleted.

10) Section 12 is further amended in subsection (3), subclause (iii), line three by deleting the word "drainage" and substituting therefore the words "storm sewer".

11) Section 12, subsection (4) is deleted and the following substituted therefore:

"Plans or drawings or center-line profiles shall be signed and sealed by the professional engineer in accordance with the Engineering Profession Act."

12) PART 8, Section 18, subsection (2) is amended by deleting clauses (t) and (u).

13) Section 18, subsection (4) is deleted and the following substituted therefore:

"(4) Where the requirements of Sections 37, 38, 39, and 40 apply:

a) Final plans of subdivision shall be accompanied by detailed engineering design drawings for the water, sewer and storm drainage systems to be installed

i. prepared in accordance with the specifications contained in Schedule "B" and

ii. stamped by a Professional engineer,

b) In addition to the requirements in subsection (4) (a) the drawings shall show the location and dimensions of existing water and sewer systems to which the proposed system will connect,

c) Final plans of subdivision shall be accompanied by detailed engineering design drawings for the public streets to be constructed:

i. Prepared in accordance with the specifications contained in Schedule "B" of this By-law, and

ii. Signed and stamped by a Professional engineer,

d) Final plans of subdivision shall be accompanied by a copy of the agreement, entered into between the Town and the sub divider pursuant to Section 43(2), outlining the terms for the installation of the services and constructions of streets.

14) PART 9, Section 20 is amended in line one by deleting the reference to the following "(1)" and deleting subsection (2).

15) The Subdivision By-law is amended by inserting immediately after Section 20 the following Section:

"20A. Where a land use by-law is in effect, Sections 21 and 23 are inoperative and do not apply unless the land use by-law permits development on any lot created pursuant to these Sections and the municipal planning strategy provides for both the subdivision and development of such lots."

16) Section 22, subsection (2a), clause (b) is amended in lines two, three and four by deleting the following words "other that the new boundaries which have been surveyed pursuant to the clauses (a), shown" and substituting therefore the following "other than the new boundaries which have been surveyed pursuant to clause (a), show".

17) Section 23, subsection (1) is amended in line one by deleting the reference to "Sections 22(1)" and substituting therefore the following "Section 20".

18) Section 29, subsection (2) is amended in lines four, five, six and seven by deleting the following "; unless there exists an emergency exit of 3 meters (9.8 feet)
wide to a public street, then the length of the cul-de-sac shall not exceed 228 meters (748.03 feet)"

19) Section 30 is amended in line four by deleting the word "tow" and substituting therefore the word "two" and in line five by deleting the following "4 percent" and substituting the following "0.5 percent".

20) Section 35, subsection (1) is amended by deleting in line three the following "13 November 1975" and substituting therefore the following "25th of May 1960".

21) PART 10, Section 36 is amended in line two by deleting the words "municipal services" and substituting therefore the following words "sewer, water and storm sewer systems".

22) Section 36 is further amended by deleting subsection (2a) and substituting therefore the following:

"In the Residential Suburban 9R1) Zone where sewer, water and storm sewer systems are not provided or are not within 30 meters (100 feet) of the area of land proposed to be subdivided."

23) Section 38, subsection (1) is amended in line one by deleting the number "35" and substituting therefore the number "36".

24) Section 39, subsection (1) is amended in line one by deleting the following "of Section 35" and substituting therefore the following "to Section 36".

25) Section 39 is further amended in subsection (2), line one, by inserting immediately after the word "include" the following words "collectors and laterals".

26) Section 40, subsection (2) is amended in lines two and three by deleting the following "not designated for storm water systems" and substituting therefore the following "where storm sewer systems are not required,"

27) Section 42, subsection (1) is amended in line two by deleting the number "36".

28) Section 42, subsection (1) is further amended in clause 9b), sub clause (iii), in line one, by deleting the word "or" and substituting the word "of".

29) Section 43, subsection (2), clause (a) is amended in line three by adding immediately after the word "services" the following words "and streets".

30) Section 44, clause (d) is amended in line two by deleting the word "drainage" and substituting therefore the word "sewer" and in line four by inserting immediately after the word "services" the words "and streets".

31) Section 46 is amended in line four, by adding immediately after the word "streets," the following words, "and services".

32) Section 47 is amended in clause (a) by deleting in the last two lines the following words "to the specification contained in Schedule "B" of this By-law" and substituting therefore the following words "in accordance with the engineering design drawings submitted pursuant to Section 18(4)".

33) Section 48 is amended by adding to the end thereto the following words "unless the agreement provides otherwise".

34) Section 49, subsection (1) is amended in line three by inserting immediately after the word "services" the following words "and connect the services to the existing sewer and water systems".

35) Section 49 is further amended in subsection (2), clause (c), line one by deleting the word "or" and substituting therefore the word "of".

36) Section 51, subsection (1) is amended by deleting the period at the end thereto and substituting the following "or a sum of money equal to 5 percent of the assessed value of the new lots created exclusive of public streets and the remainder lot, if any."

37) Clause (b), subsection (3) of Section 51 is not approved.

38) PART 11, section 54 is amended in line one by deleting the word “may” and substituting the word “shall”.

39) Section 55, subsection (3), clause (b) is deleted.

40) Section 58 is amended in line one by deleting the following “and (2C)” and in line five by inserting immediately after the word “forward” the words “to the Registrar of Deeds”.

41) PART 13, Section 59, subsection (1) is amended in line two by deleting the reference to “1976” and the following is substituted therefore “1967”.

42) Schedule A.2 is not approved.

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SUBDIVISION BYLAW FOR THE TOWN OF NEW GLASGOW

PART 1: TITLE

1. This bylaw may be cited as the "Subdivision Bylaw" for the Town of New Glasgow and includes the regulations prescribed by the Minister of Municipal Affairs for the Town of New Glasgow.

PART 2: INTERPRETATION

2. In this bylaw the word "shall" is mandatory and not permissive. Words used in the present tense shall include the future. Words used in the singular shall include the plural except where otherwise indicated and words used in the plural number shall include the singular. All other words shall carry their customary meaning except those defined hereinafter.

PART 3: DEFINITIONS

3. (a) **AGREEMENT** means a written contract entered into between the sub divider and the Town relating to the provision of services outlined in this by-law.

(aa) **APPROVED SUBDIVISION DRAINAGE AND GRADING PLAN** means a grading plan approved as part of a final plan of subdivision under this by-law, which is approved by the Town Engineer and illustrates the drainage systems and patterns common to a subdivision of land resulting in four (4) or more lots. The Approved Subdivision Drainage and Grading Plan shall be retained by the Town, and may be amended from time to time to reflect revisions arising from lot and building construction. At a minimum, such a plan shall include proposed lot corner elevations, proposed elevations for buildings at grade level, drainage systems, and any other measures outlining how surface water and storm water flows will not adversely affect abutting and nearby properties, municipal streets and storm water systems, and other lands;

(b) **AREA OF LAND** means any lot or parcel as described by its boundaries.

(c) **COUNCIL** means the Council of the Town of New Glasgow.

(d) **DEVELOPMENT OFFICER** means the officer who is charged with the duty of administering this Subdivision By-law.

(e) **DIRECTOR** means the Provincial Director of Planning.

(f) **ENGINEER** means a registered member of the Association of Professional engineers of Nova Scotia.

(g) **ENGINEERING DESIGN PLAN** means plans stamped and signed by a professional engineer showing layout and design of primary and secondary services.

(h) **EXISTING STREET** means any public street.

(i) **FRONTAGE** means the horizontal distance between the side lot lines, such distance being measured perpendicularly to the line joining the middle of the front lot line with either the middle of the rear lot line or the apex of the triangle formed by the side lot lines and at a point therein equal in distance to the minimum applicable front yard as contained in the Land-Use Bylaw for the Town.

(j) **PLANNER** means the Planner appointed by the Town of New Glasgow and may be an employee of the Pictou County District Planning Commission.

(k) **PRIMARY SERVICE** includes sanitary sewer, storm sewer, water system and hydrants, water service pipe to the street lines, street constructed to and including a maintained sub-base of Class "C" gravel as outlined in Schedule "B" of this Bylaw.

(l) **PUBLIC STREET** means any street owned and maintained by the Town.

(m) **SANITARY SEWER SYSTEM** means the sanitary sewer system which is owned and maintained by the town, and includes force-mains and pumping stations.

(n) **SECONDARY SERVICE** includes concrete curb and gutter, asphalt pavement including base gravel and the graded area between curb and street boundary s outlined in Schedule "B" of this By-law.

(o) **STREET RESERVE** means an area of land deeded to the Town for future use as a public street.

(p) **STORM SEWER SYSTEM** means the system receiving, carrying and controlling storm water and surface runoff and which may include pipes,

conduit, catch-pits, culverts, ditches, watercourses, roadways and retention ponds.

(q) **SUB DIVIDER** means the owner or owners; of the area of land proposed to be subdivided and includes anyone acting with his written consent.

(r) **SUBDIVISION** means the division of any area of land into two or more parcels, and includes a re-subdivision or a consolidation of two or more parcels.

(ra) **SUBDIVISION DRAINAGE AND GRADING PLAN** means a grading plan submitted as part of a final plan of subdivision under this by-law, which must meet the approval of the Town Engineer and illustrates the drainage systems and patterns common to a subdivision of land resulting in four (4) or more lots. At a minimum, such a plan shall include proposed lot corner elevations, proposed elevations for buildings at grade level, drainage systems, and any other measures outlining how surface water and storm water flows will not adversely affect abutting and nearby properties, municipal streets and storm water systems, and other lands; (see definition of Approved Subdivision Grading Plan);

(s) **TOWN** means the Town of New Glasgow.

(t) **TOWN ENGINEER** means the Engineer appointed by Town Council.

(u) **USEABLE LAND** is land assessed as “useable” by the Recreation Coordinator in conformance with the policies of Council as contained in Schedule “C” of this by-law.

(v) **WATERCOURSE** includes every watercourse and the bed thereof , and every source of water supply, whether the same usually contains water or not, and every stream, river, lake, pond, creek, spring, swamp, marsh, ravine and gulch. The limits of any water course is deemed to be the main high water line.

(w) **WATER SYSTEM** means an assembly of pipes, fittings, control valves, hydrants and appurtenances owned and maintained by a Public Water Utility.

PART 4: PRELIMINARY PLANS OF SUBDIVISION AND CONCEPT PLANS

4. (1) The sub divider proposing to subdivide property may or where required under Section 4 (4) shall submit to the Development Officer FIVE (5) copies of a preliminary plan of the proposed subdivision together with the following information and documentation:

(a) name and address of the subdivider, and if the subdivider is not the owner of the area of land proposed to be subdivided, the name of the owner,

(b) names and addresses of all owners or the lot identifiers of all properties abutting the land proposed to be subdivided, and

(c) a plan or sketch of the land proposed to be subdivided to scale or scales sufficient for clarity of all particulars on the plan showing:

(i) the dimensions and area of the area of land to be subdivided,

(ii) the nature of the proposed subdivision and the lots therein,

(iii) the approximate location of watercourses or other natural features on the land proposed to be subdivided that might affect the number of lots on the area proposed to be subdivided, and

(iv) a key plan at a scale not smaller than 1 : 50,000 showing the general location of the area of land and indicating the north point.

(2) The Development Officer shall, if applicable, forward a copy of all material received pursuant to subsection (1) to:

(a) the Department of health for an evaluation to determine what size is generally appropriate to meet the requirements Respecting Subdivision of Land to be Serviced by On-Site Sewage Disposal System,

(b) the Transportation Committee, Town Engineer, Recreation Committee, Recreation Director

(c) the Planner

(d) any other agency of the Province or the Town the Development Officer deems necessary.

(3) The Department of Health, the Transportation Committee, Town Engineer, Recreation Committee, Recreation Director, the Planner and any other agency of the province or town, which has been forwarded a copy of the Preliminary Plan, shall forward a written report of their findings to the sub divider and the Development Officer.

(4) A sub-divider proposing to subdivide property where new streets are proposed to be constructed shall submit a Concept Plan as a Preliminary Plan of Subdivision, and such a Concept Plan shall show the following:

i) name of the subdivision, if any, and the name of the owner of the area of land,

ii) names of all owners or the lot identifiers of all properties abutting the area of land proposed to subdivided,

iii) a location map, drawn to a scale not smaller that 1:50,000 (such scale to be shown on the map), preferable with the same orientation as the area of land,

iv) the words "CONCEPT PLAN" located above the title block,

v) a clear space for stamping, measuring at least 15 cm. (5.90in.) wide by 15cm. (5.90in.) high,

vi) the approximate dimensions of the area of land proposed to be subdivided,

vii) the proposed dimensions and shape of lots and blocks,

viii) the approximate area of each lot including the approximate area of the remainder lot, if any,

ix) each proposed lot individually identified without duplication of lot identifiers, and where practicable, where a parcel is being added to or subtracted from an existing lot or where a lot shown on a plan of subdivision is being divided, the proposed lot or lots shall be identified by the existing lot identifier and a letter,

x) approximate locations of all existing main buildings on the area of land proposed to be subdivided with the graphical location for all building within 3 meters (9.8 feet) either side of the boundaries of the proposed lot,

xi) the boundary lines of proposed lots shown by solid lines, and the vanishing re-subdivided, consolidated or both, shown as broken lines,

xii) the scale to which the concept plan of subdivision is drawn,

xiii) the width and location of railroads, and existing and proposed public streets, including intersections and turning circles,

xiv) the names of existing and proposed public streets,

xv) a notation stating whether or not the lots for which approval is requested are serviced by public sewer and water systems,

xvi) the identification, location, dimensions, and area of land proposed to be reserved for park, playground, green belts, trails, shoreline buffers, and similar public purposes,

xvii) the width, location and nature of any easements or rights-of-way affecting the area of land proposed to be subdivided,

xviii) north point,

xix) the date on which the concept plan of subdivision was drawn and the date of any revisions,

xx) the location of any watercourse, prominent rock formation, area subject to flooding and any other prominent natural features which might affect the layout or provision of public streets and services to the area where the subdivision is to be located, and

xxi) any other information which the Development Officer, or any person or agency designated to comment, deems necessary to determine whether a tentative plan of subdivision conforms to this Subdivision By-law."

(5) The requirements of Section 4 (1) - (3) shall also apply to a Concept Plan submitted under Section 4 (4).

PART 5: PROCEDURE FOR APPROVAL OF TENTATIVE PLANS OF SUBDIVISION

5.

The sub divider proposing to subdivide an area of land shall submit to the development Officer for approval an application in the form specified in Schedule "A" tentative plan of the proposed subdivision meeting the requirements of part 6 of this by-law.

6.

Notwithstanding Section 5, the Development Officer may waive the requirement that tentative application and plan of subdivision be submitted, where:

i) the lots abut an existing street, and

ii) no public sewer or water systems are to be installed,

provided that, if required, an assessment of the lots has been completed pursuant to the Regulations Respecting Subdivision of Land to be serviced by on-site disposal systems by the Department of Health and the Development Officer is advised in writing of the classification of such lots pursuant to the Regulations.

7.

When the Development Officer is satisfied that an application and tentative plan of subdivision are complete he shall, if applicable, forward a copy to the Transportation Committee, the Town Engineer, the Recreation Committee, the Recreation Director, the Planner, the Department of Health, the Department of Environment and any other agency of the province or town the Development Officer deems necessary.

8.

The Development Officer shall comply with the notification and approval provisions of Section 96(2) and (3) of the Planning Act.

9.

Approval of a tentative plan of subdivision may not be refused or withheld as a result of the assessment or recommendations made by the Department of Health, the Transportation Committee, Town Engineer, the Recreation Committee, Recreation Director, the Planner, or any other agency of the province or the town unless the tentative plan of subdivision is clearly contrary to a law of the province or by-law of the town

made pursuant to a law of the province including any applicable dimensions for lot area and lot frontage contained in a land-use by-law of the town.

10.

The following information shall be stamped or written on any tentative plan of subdivision, which is approved together with any other information necessary for the tentative plan to proceed to the final plan stage:

a) "This tentative plan of subdivision is approved for lots_____. Such approval lapses if the lots are not shown on a final plan of subdivision approved within two years of the date of the approval of the tentative plan."

b) the date of the approval of the tentative plan.

c) "This tentative plan of subdivision shall not be filed in the Registry of Deeds as no subdivision takes effect until a final plan of subdivision is endorsed by the Development Officer and has been filed by him in the **Registry of Deeds**."

11.

(1) Within 5 days of approving a tentative plan of subdivision, the Development Officer shall forward a copy of approved tentative plan to the sub divider and notify in writing, where applicable, the Transportation Committee, the Town Engineer, the Recreation Committee, the Recreation Director, the Planner, the Department of Health, the Department of the Environment and any other agency of the province or town the Development Officer requested to review the plan of his decision to approve the tentative plan.

(2) Where the Development Officer refuses to approve a tentative plan of subdivision, he shall notify the sub divider pursuant to section 96(3) (c) of **THE PLANNING ACT**, advising the sub divider of the appeal provisions of Section 103 of **THE PLANNING ACT**.

PART 6: TENTATIVE PLAN OF SUBDIVISION REQUIREMENTS

12.

2) Tentative plans of subdivision submitted to the Development Officer shall be:

i) drawn to a minimum scale or scales sufficient for clarity of all particulars on the tentative plan of subdivision,

ii) based on a description of the property to be subdivided, preferably but not necessarily as surveyed, and

iii) folded to approximately 20x30cm. (8x12in.) with the face of the folded print being the title block which is located in the lower right hand corner of the tentative plan of subdivision.

3) Tentative plans of subdivision shall show the following:

i) name of the subdivision, if any, and the name of the owner of the area of land,

ii) names of all owners or the lot identifiers of all properties abutting the area of land proposed to subdivided,

iii) a location map, drawn to a scale not smaller that 1:50,000 (such scale to be shown on the map), preferable with the same orientation as the area of land,

iv) the words "TENTATIVE PLAN" located above the title block,

v) a clear space for stamping, measuring at least 15 cm. (5.90in.) wide by 15cm. (5.90in.) high,

vi) the approximate dimensions of the area of land proposed to be subdivided,

vii) the proposed dimensions and shape of lots and blocks,

viii) the area of each lot including the approximate area of the remainder lot, if any,

ix) each proposed lot individually identified without duplication of lot identifiers, and where practicable, where a parcel is being added to or subtracted from an existing lot or where a lot shown on a plan of subdivision is being divided, the proposed lot or lots shall be identified by the existing lot identifier and a letter,

x) approximate locations of all existing main buildings on the area of land proposed to be subdivided with the graphical location for all building within 3 meters (9.8 feet) either side of the boundaries of the proposed lot,

xi) the boundary lines of proposed lots shown by solid lines, and the vanishing re-subdivided, consolidated or both, shown as broken lines,

xii) the scale to which the tentative plan of subdivision is drawn,

xiii) the width and location of railroads, and existing and proposed public streets, including intersections and turning circles,

xiv) the names of existing and proposed public streets,

xv) a notation stating whether or not the lots for which approval is requested are serviced by public sewer and water systems,

xvi) the identification, location, dimensions, and area of land proposed to be reserved for park, playground, and similar public purposes,

xvii) the width, location and nature of any easements or tights-of-way affecting the area of land proposed to be subdivided,

xviii) north point,

xix) the date on which the tentative plan of subdivision was drawn and the date of any revisions,

xx) the location of any watercourse, prominent rock formation, area subject to flooding and any other prominent natural features which might affect the layout or provision of public streets and services to the area where the subdivision is to be located, and

xxi) any other information which the Development Officer, or any person or agency designated to comment, deems necessary to determine whether a tentative plan of subdivision conforms to this Subdivision By-law.

4) In addition to meeting the requirements of subsections (1) and (2), where the proposed lots front on a proposed public street, a tentative plan of subdivision shall:

i) show a boundary survey of the area of land proposed to be subdivided, excluding the remainder lot, certified and stamped by a Nova Scotia Land Surveyor in the manner required by the Nova Scotia Land Surveyors Act and the Regulations made hereunder,

ii) be accompanied by FOUR (4) copies of a plan showing:

(a) contours at 2 meter (5foot) intervals, and drainage patterns, and

(b) the width and location of existing and proposed public streets, including intersections and turning circles, and

(c) the location of existing and proposed central sewer, water and storm sewer systems, and proposed connections thereto, and

(d) be accompanied by TWO (2) copies of a plan showing the center line profiles of the proposed public streets, and

(e) be accompanied by any other information which the Development Officer deems necessary to determine whether the plan and drawing referred to in clauses (b) and (c) conform to this Subdivision By-law.

5) Plans or drawings or centerline profiles shall be signed and sealed by the professional engineer in accordance with the Engineering Profession Act.

PART 7: PROCEDURE FOR APPROVAL OF FINAL PLANS OF SUBDIVISION

13.

The sub divider proposing to subdivide an area of land shall submit an application in the form specified in Schedule "A" of this bylaw and TWELVE (12) copies of the final plan of subdivision meeting requirements of Part 8 of this bylaw to the Development Officer for approval.

14.

The Development Officer shall comply with the notification and approval provisions of Section 96 (2) and (3) of THE PLANNING ACT.

15.

When the Development Officer is satisfied that an application and final plan of subdivision are complete he shall, if applicable, forward a copy of the application and final plan of subdivision to the Transportation Committee, the Town Engineer, the Recreation Committee, the Recreation Director, the Planner, the Department of Health, the Department of the Environment and any other agency of the province or the town, the Development Officer deems necessary.

16.

Approval of final plan of subdivision may not be refused or withheld as a result of the assessment or recommendations made by the Department of Health, the Department of the Environment, the Transportation Committee, Town Engineer, the Recreation Committee, the Recreation Director, the Planner or any other agency of the province or the town unless the final plan of subsdivision is clearly contrary to a law of the province or by-law of the town made pursuant to a law for lot area and lot frontage contained in the Land-Use By-law of the Town.

17.

(1) Upon approval by the Development Officer of the final plan of subdivision, the Development Officer shall notify in writing the sub divider, and where applicable, the Transportation Committee, the Town Engineer, the Reaction Committee, the Recreation Director, the Planner, Department of Health, the Department of the Environment or any other agency of the province or town the Development Officer requested to review the plan, of his decision to approve the final plan.

(2) Where a Development Officer refuses to approve a final plan of subdivision, he shall notify the sub divider pursuant to Section 96 (3.c) of **the Planning Act**, advising the sub divider of the appeal provisions of Section 103 of the **Planning Act**.

PART 8: FINAL PLAN OF SUBDIVISION REQUIREMENTS

18. (1) Final plans of subdivision submitted to the Development Officer shall be:

(a) drawn to a minimum scale or scales sufficient for clarity of all particulars on the final plan of subdivision,

(b) certified and stamped by a Nova Scotia Land Surveyor that the lots for which approval is requested have been surveyed in the manner required by the Nova Scotia Land Surveyors Act and the regulations make hereunder, except for a final plan of subdivision prepared pursuant to Section 22(2) of this by-law.

(c) Folded to approximately 20x30cm. (8x12in.) with the face of the folded print being the title block which is located in the lower right-hand corner of the final plan of subdivision.

(2) Final plans of subdivision shall show the following:

(a) name of the subdivision, if any, and the name of the owner of the property,

(b) a location map, drawn to a scale not smaller than 1: 50,000 (such scale to be shown on the map), preferable with the same orientation as the area of land,

(c) the length of the boundaries of all existing and proposed lots, streets, and rights-of-way and easements including the length or arc, points of curvature and radius in the case of curved lines,

(d) names of all owners or the lot identifiers of all properties abutting the proposed subdivision,

(e) a clear space for stamping, measuring at least 15 cm (5.90 in.) wide by 15 dm (5.90in.) high,

(f) the dimensions of the area of land proposed to be subdivided,

(g) approximate location of existing main buildings on the area of land proposed to be subdivided with the graphic location for all buildings within 3 meters (9.8 feet) either side of the boundaries of the proposed lot,

(h) the shape, dimensions and area of lots, blocks, and the remainder lot, if any,

(i) each proposed lot individually identified without duplication of lot identifiers, and where practicable, where a parcel is being added to or subtracted from an existing lot or where a lot shown on a plan of subdivision is being divided, the proposed lot or lots shall be identified by the existing lot identifier and a letter,

(j) the bearings of the boundaries of proposed lots,

(k) the width and location of railroads, and existing and proposed public streets, including intersections and turning circles,

(l) the boundaries of proposed lots shown by solid lines, and the vanishing boundaries of existing lots being re-subdivided, consolidated or both, shown as broken lines,

(m) a notation stating whether or not the lots for which approval is requested are serviced by central sewer and water systems,

(n) the identification, location, dimensions, and area of land proposed to be reserved for park, playground, and similar public purposes,

(o) the width, location and nature of any easements or rights-of-way on or affecting the area of land proposed to be subdivided,

(p) the date on which the final plan of subdivision was certified with all revisions to be identified, dated and initialed ,

(q) north point,

(r) the scale to which the final plan of subdivision is drawn,

(s) the names of existing and proposed public streets, and

(t) in the case of an application to subdivide land that will result in the creation of four (4) or more lots, a Subdivision Drainage and Grading Plan must be submitted for review and approval by the Town Engineer;

(v) any other information which the Development Officer, or any person or agency designated to comment, deems necessary to determine whether a tentative plan of subdivision conforms to this Subdivision By-law

(3) Where the design or layout of the subdivision was designed by an individual or firm other than the individual or firm of the professional land

surveyor who has certified the final plan of subdivision, the name of such individual or firm and the nature of the work performed shall be shown in the title block of the final plan of subdivision.

(4) Where the requirements of Sections 37, 38, 39, and 40 apply:

(a) Final plans of subdivision shall be accompanied by detailed engineering design drawings for the water sewer and storm drainage systems to be installed

(i) prepared in accordance with the specifications contained in Schedule “B” and

(ii) stamped by a Professional engineer

(b) In addition to the requirements in subsection (4) (a) the drawings shall show the location and dimensions of existing water and sewer systems to which the proposed system will connect,.

(c) Final plans of subdivision shall be accompanied by detailed engineering design drawings for the public streets to be constructed:

(i) prepared in accordance with the specifications contained in Schedule “B” of this by-law, and

(ii) signed and stamped by a Professional engineer

(d) Final plans of subdivision shall be accompanied by a copy of the agreement, entered into between the town and the sub divider pursuant to Section 43(2), outlining the terms for the installation of the services and constructions of streets.

PART 9: GENERAL PROVISIONS

19. (1) All lots to be approved on a final plan of subdivision shall abut a public street.

(2) A proposed public street shown on a final plan of subdivision shall have a minimum right-of-way of 15.24 meters (50 feet)

(3) In the case where a development agreement (approved under the applicable provisions of the New Glasgow Municipal Planning Strategy) is in effect, the requirements outlined under the 'Part 9: General Provisions' section of this by-law, and any applicable corresponding section of the by-law's Standard Specifications, may be waived, provided that the requirement or specification to be waived is outlined either in the text or an attached schedule of the development agreement.

20.

All lots for which approval is requested shown on a final plan of subdivision and the remainder lot, if any, for which now approval is requested shall meet the applicable dimensions for minimum lot area and lot frontage contained in the Land-Use By-Law for the Town.

20A.

Where a land-use by-law is in effect, Sections 21 and 23 are inoperative and do not apply unless the land-use by-law permits development on any lot created pursuant to these Sections and the municipal planning strategy provides for both the subdivision and development of such lots.

21. Notwithstanding Section 20, where an area of land contains more than one main building which were built or placed prior to August 6, 1984 the Development Officer may approve a final plan of subdivision showing the same number or fewer of lots as there are main buildings and a remainder lot, if any, for which no approval is requested, provided that:

(a) each proposed lot has minimum lot frontage of 6 meters (19.7 feet), and

(b) each proposed lot:

(i) is served by a central sewage system or;

(ii) is approved by the Department of Health for the installation of an on-site sewage disposal system and the Development Officer is notified in writing of such approval, and

(c) the remainder lot, if any, meets the lot area and lot frontage requirements of Section 20.

22.

(1) Notwithstanding Section 20, the Development Officer may approve a final plan of subdivision altering the boundaries of two or more areas of land where:

i) no additional lots are created, and

ii) each lot:

(a) meets the minimum dimensions for lot frontage of the Land-Use By-Law for the town, or

(b) has not had its frontage, if any reduced, and

iii) each lot:

(a) meets the minimum dimensions for lot area of the Land-Use By-Law for the town, or

(b) has not had its area reduced.

(2) The final plan of subdivision prepared pursuant to subsection (1) shall:

a) be certified and stamped by a Nova Scotia Land Surveyor that the boundaries of the parcel proposed to be added to the existing area of land have been surveyed, shown as a heavy solid line, except the common boundary between the existing lots is surveyed and certified as being the common boundary shown as a heavy broken line, and

b) notwithstanding clauses 18(1.b) and 18(2) (j) and (1), other than the new boundaries which have been surveyed pursuant to clause (a), show the remaining boundaries of the resulting lot for which approval is requested described graphically as a lighter solid line, and

c) have the following notation affixed to the plan adjacent to the certification required by the Nova Scotia Land Surveyors Act and regulations made hereunder, and such notation is signed by the surveyor:

"**Note:** **The only boundaries shown on this plan which have been surveyed are the boundaries of Parcel_____. The common boundary between existing lots _____and _____ which is shown by a heavy broken line, is hereby certified as having been the common boundary.**

The remaining boundaries of resulting lots_____ shown on this plan are a graphic representation only and do not represent the accurate shape or position of the lot boundaries which are subject to a field survey."

23.

(1) Notwithstanding Section 20, the Development Officer may approve a maximum of two lots in accordance with Section 98 of the Planning Act, provided all other requirements of these regulation are met.

(2) Subsection (1) shall not vary the minimum dimension for area for lots served by an on-site sewage disposal system.

24.

All lots to be approved on a tentative or final plan of subdivision, and a remainder lot if any, shall have a minimum width and minimum depth of at least 6 meters (19.7 feet).

25.

A public street, unbroken by an intersection shall not exceed 365 meters (1,197.51 feet) in length unless such would prejudice the proper subdivision of land or adjoining land.

26.

There shall be no more than four public street approaches in an intersection.

27.

Where a proposed public street intersects a public street, the minimum sight distance along the public street shall be 65 meters (213.3 feet).

28.

The distance between public street intersections shall not be less than 61 meters (200.13)

29.

(1) The length of a proposed cul-de-sac shall not exceed 107 meters (351.05 feet) from an intersection to the turning circle.

(2) Proposed cul-de-sacs or other dead-end public streets shall have a turnaround with a minimum radius of 14.0 meters (45 feet, 11 inches) from the center of the proposed cul-de-sac.

For further clarification, refer to Section 2.1 Street Classifications, under Schedule B of this By-law.

30.

The grade of a proposed public street measured for at least 30 meters (100 feet) shall be a maximum of 10 percent with 4 percent being the maximum for 30 meters (100 feet) prior to the intersection of two centerlines. The minimum grade of any street shall be 0.5 percent.

31.

All proposed intersection streets must intersect at an angle of 70 to 90 degrees for a minimum distance of 30 meters (98.43 feet) from the intersection measured from the respective centerlines.

32.

Where a public street or a street reserve in an adjoining subdivision abuts the boundaries of a plan of subdivision submitted for approval, the public street in the latter shall, if reasonably feasible, be laid out in prolongation of such public streets, unless it would be in violation of this by-law.

33.

Wherever possible, side lot lines shall be substantially at right angles to a public street, or radial to a curved public street.

34.

Wherever possible, the rear lot lines of a series of adjoining lots shall be continuous, not stepped or jogged.

35.

(1) An application to amend or repeal an endorsed plan of subdivision or a plan of subdivision or a plan of subdivision drawn prior to the **25th of May 1960**, shall be in accordance with Section 102 of the **Planning Act**, and shall satisfy the requirements of this by-law concerning approvals of final plans of subdivision.

(2) The application to amend shall refer to the plan of subdivision as originally endorsed or drawn, and such reference shall include the file number of the earlier subdivision plan filed at he office of the **Registrar of Deeds** for this town.

PART 10: WATER, SEWER, AND OTHER SERVICES

36.

The developer shall be exempt from the following requirements for installing sewer, water and storm sewer systems where:

i) Roads and services are currently owned and maintained by the town, or

ii) In the Residential Suburban (R1) Zone where sewer, water and storm sewer systems are not provide or are not within 30 meters (100 feet) of the area of land proposed to be subdivided.

37.

(1) Subject to Section 36, a sub divider who proposes it subdivide an area of land in NEW GLASGOW shall install a water system for the area of land; proposed to be subdivided.

(2) The water system shall include mains and laterals to the boundaries of the proposed lots and the system shall be designed by a Professional engineer and shall comply with the specifications set forth in Schedule “B” of this by-law.

38.

(1) Subject to Section 36, a sub divider who proposes to subdivide an area of land in NEW GLASGOW shall install a sanitary sewer system for the area of land; proposed to be subdivided.

(2) The sanitary sewer system shall include collectors and laterals to the boundaries of the proposed lots and the system shall be designed by a Professional engineer and shall comply with the specifications set forth in Schedule ”B” of this by-law.

39.

(1) Subject to Section 36, a sub divider who proposes to subdivide an area of land in New Glasgow shall install a storm water system for the area of land; proposed to be subdivided.

(2) The storm water system shall include collectors and laterals to the boundaries of the proposed lots and the system shall be designed by a professional engineer and shall comply with the specifications set forth in Schedule "B" of this by-law.

40.

(1) A sub divider who proposes to subdivide an area of land shall layout and constructs all proposed public streets as shown on the street plan.

(2) The public street shall include all roadway culverts and drainage ditches, for areas where storm sewer systems are not required and the public street shall be designed by a professional engineer and shall comply width the specifications set forth in Schedule "B" of this by-law.

41.

Prior to endorsement of approval on the final plan of subdivision the Development Officer shall have received joint approval of the water and sanitary sewer systems from the **Department of Health** and the **Department of the Environment**. The Development officer shall forward a copy of the joint approval to the Town Engineer, for information purposes.

42.

(1) The sub divider shall satisfy the requirements of Sections 37, 38, 39, and 40 by any one of the following alternatives:

i) The sub divider shall agree in writing with the town to install the required systems and construct the public streets prior to endorsement of approval on the final plan of subdivision, or

ii) The sub divider shall agree in writing with the town to install the required systems and construct the public streets after receiving endorsement of approval on the final plan of subdivision and shall deposit with the Clerk, prior to endorsement

(a) cash, or

(b) A certified cheque, or

(c) A bond of indemnity acceptable to the Council

in an estimated amount sufficient to cover 125 percent of installation costs of the required systems and 125 percent of construction costs of the public streets, such estimates to be approved by the Town Engineer, or

iii) The Council shall agree in writing with the sub divider to install the required systems and construct the public streets and the sub divider shall give to the Clerk, prior to endorsement of approval on the final plan of subdivision
A certified cheque or cash in an amount sufficient to cover the costs of design of the services, as
A certified cheque or cash in an amount equal to 125 percent of the costs of installation of the services, and 125 percent of the costs of construction of the public streets, as estimated by the Town Engineer.

43.

(1) An agreement entered into between the town and the sub divider pursuant to Section 42 shall be executed in duplicate, signed by the Mayor and the Clerk on behalf of the town and by the sub divider, copy to the Development Officer, prior to endorsement of approval on the final plan of subdivision.

(2)The agreement shall contain terms with respect to:

i) commencement and completion dates for construction and installation of services and streets,

ii) such phasing as may be agreed upon by the sub divider and the town,

iii) the terms and conditions of any security posted with the town; such securities are not to be posted until joint approval has been obtained from the Departments of Health and Environment,

iv) the provision and acceptance of easements and rights-of-way associated with the services, and

v) any other matter required by the provisions of this by-law.

44.

In addition to section 43, where the sub divider is responsible for the installation of services, he shall:

i) Arrange and pay for engineering design specifications for the services in accordance with the specifications set forth in Schedules “B” of this by-law;

ii) Arrange for complete testing of the systems, and shall advise the Town Engineer of proposed test dates, sites and times;

iii) Allow the town to inspect the construction and installation at any stage;

iv) Follow completion of the sanitary sewer, storm sewer and water systems and the construction of all public streets; convey the services and streets free of encumbrances from the sub divider to the town, at no cost to the town.

45.

In addition to Section 43 and 44, where the sub-divider is responsible for the installation of services and he posts security with the town, the following conditions shall be met:

i) The security shall be made in favor of the town, conditioned on the execution and completion of the agreement in accordance with its terms and the terms of this by-law, and shall not be subject to cancellation, termination, or expiration during the period of time for completion of the services;

iii) Where installation of the services is not completed in accordance with the agreed upon commencement and completion dates, the sub divider shall forfeit the cash deposit, certified cheque or bond of indemnity.

46.

Where the alternative in Section 42(1.c) is chosen the sub divider shall be responsible for no more than 125 percent of the actual costs of construction of the public streets and services, and upon completion of the services, if actual costs are lower than the amount of the certified cheque or cash deposit, any balance shall be refunded to the sub divider.

47.

Following construction and installation of the required services and before acceptance by the Municipality of the services, the sub divider shall:

i) provide the “as built” reproducible engineering drawings for all services stamped by a Professional engineer, plus a letter from a Professional engineer certifying that all services have been installed in accordance with the engineering design drawings submitted pursuant to Section 18(4).

iii) provide all operating and procedural manuals for each water, sanitary sewer or storm drainage system, and

iv) provide the results of all required test reports of the systems demonstrating that the required systems have been constructed and are operating according to the standards of the agreement and this by-law, and

v) provide all easements and rights-of-way associated with the services, and

vi) post a maintenance bond acceptable to the Council made in favor of the town in an amount equal to 10 percent of the actual costs of construction and installation of services, such bond to be posted for one (1) year.

48.

The deed to any proposed public street shown on a final plan of subdivision, shall be accepted by the town free of encumbrances, and the town shall notify the Development Officer prior to endorsement of approval on the final plan of subdivision unless the agreement provides otherwise.

49.

(1) When not required to do so pursuant to Section 36, but where the subdivide wishes to install services and connect the services to the existing sewer and water systems, the sub divider shall:

i) agree in writing with the town to construct and install the services prior to endorsement of approval on the final plan of subdivision, or

ii) agree in writing with the town to construct and install the services after receiving endorsement of approval on the final plan of subdivision.

(2) Where the sub divider agrees in writing pursuant to Section 49(1.b), the sub divider shall deposit with the Clerk, prior to endorsement of approval on the final plan of subdivision

i) cash, or

ii) a certified cheque, or

iii) a bond of indemnity acceptable to Council

in an estimated amount sufficient to cover 125 percent of construction and installation costs, such estimate to be approved by the Town Engineer.

50.

(1) The water system installed pursuant to Section 49(1) shall include mains and laterals to the boundaries of the proposed lots and the system shall be designed by a Professional engineer and shall comply with the specifications set forth in schedule “B” of this by-law.

(2) The sanitary sewer system installed pursuant to Section 49(1) shall include collectors and laterals to the boundaries of the proposed lots and the system shall be designed by a Professional engineer and shall comply with the specifications set forth in Schedule “B” of this by-law.

(3) In addition to the requirements of Section 49 and Section 50(1) and 92), the provisions contained in Section 43, 44, 45, and 46 shall apply.

PART 11: PARKLAND TRANSFRS

51. (1) Before endorsement of approval on the final plan of subdivision by the Development Officer, the sub divider shall reserve and convey to the town free of encumbrances, for park, playground or similar public purposes, an area of useable land equal to 5 percent of the area of land shown on the final plan of subdivision exclusive of public streets and walkways and the remainder lot, if any, or a sum of money equal to 5 percent of the assessed value of the new lots created exclusive of public streets and the remainder lot, if any.

(2) The sub divider may reserve and convey to the town under Section 51 (1) more than the required 5 percent, which land may be accepted by the town depending on the current policy of Council in that regard.

(3) Notwithstanding subsection (1), where:

(a) 5 percent of the subdivided area is less than the minimum lot required for recreational uses as set out in the town's Land-Use By-Law,

the Clerk shall accept for park, playground or similar public purposes, a sum of money equal to 5 percent of the assessed value of the new lots created, exclusive of public streets and the remainder lot, if any, before endorsement of approval on the final plan of subdivision by the Development Officer.

(4) Parkland transfers shall be "land only" in cases where a sub-divider must construct a new street or streets. Nonetheless, the Town may waive the requirement for a "land only" parkland transfer in these cases where, in the Town's sole determination, the criteria outlined under "Appendix A – Recreation Facility and Open Space Guidelines" of the Land Use By-law are already being met for playgrounds and/or tot lots.

(5) The Town may stipulate that the land area of a parkland transfer be in the form of a neighbourhood park, tot lot, green belt, trail, shoreline buffer, or other similar manner. Such a parkland transfer shall be detailed under a Concept Plan when required under Part 4 of this by-law.

52. In the alternative to Section 51, before endorsement of approval on the final plan of subdivision a sub divider may offer to Council, and at Council's option the Clerk may accept an amount of useable land of equivalent value to that required under Section 51, outside the area of land to be subdivided and within the boundaries of the town.

53. At the option of Council, a combination of Sections 51 and 52 may be accepted by the Clerk; providing that it is equivalent in value to that required under Sections 51.

54. (1) Notwithstanding Sections 51 – 53, the Development Officer shall waive the requirements of these sections when the applicant is requesting approval for the consolidation or re-subdivision of existing lots and the number of resulting lots is not increased.

(2) Notwithstanding Sections 51 – 53, the Development Officer shall also waive the requirements of these sections when the applicant is requesting approval for the subdivision of land with respect to Section 21, provided that all lots being so created have been fully developed and contain a "main building" as defined in the New Glasgow Land-Use By-Law.

(3) In the case where a development agreement (approved under the applicable provisions of the New Glasgow Municipal Planning Strategy) is in effect, the requirements outlined under the 'Part 11: Parkland Transfers' section of this by-law, and any applicable corresponding section of the by-law's Standard Specifications, may be waived, provided that the requirement or specification to be waived is outlined either in the text or an attached schedule of the development agreement.

PART 12: REQIREMENTS FOR ENDORESEMENT AND FILING OF FINAL PLANS OF SUBDIVISION

55.

(1) When the requirements of the **Planning Act**, this **By-Law** and the **Regulations Respecting Subdivision of Land** to be serviced by On-Site Sewage Disposal Systems pursuant to the **Health Act** have been met and the final plan of subdivision has been approved by the Development Officer approval shall be endorsed on the final plan of subdivision by the Development Officer.

(2) The Development Officer shall forward a copy of the endorsed final plan of subdivision to the sub divider.

(3) Pursuant to and in addition to Section 100(5) of the **Planning Act**, the Development Officer shall give notice of the endorsement of approval on the final

i) the Council of the Town in which the land is located,

ii) the surveyor, and

iii) any other department or agency of the province or the town who has been requested to review the final plan of subdivision.

56.

The following information shall be written or stamped on any final plan of subdivision which is endorsed:

iv) "This finial plan of subdivision is approved for lots_____",

v) the classification of each lot within one of the classes A, B, C, or D, including the definition of such class, specified in Schedule "A" to the regulations respecting subdivision of land to be serviced by On-Site Sewage Disposal Systems or "Lots_____ are serviced with a central sewer."

57.

Pursuant to Section 100(2) of the **Planning Act**, the Development Officer shall forward by certified mail or hand deliver two endorsed copies of the final plan of subdivision to the **Registrar of Deeds Office** for the County of Pictou (one copy to be filed and one copy to be certified and returned to the Development Officer) and pay the fees required under part 13 of this by-law to file the final plan.

58.

Pursuant to Section 100(2B) of the **Planning Act**, the Development Officer shall register a notice, in the form specified in Schedule "A", in the **Registry of Deeds;** which indicates approval of the final plan of subdivision and forward to the **Registrar of Deeds** the fees required in Section 59 of this by-law.

PART 13: FEES FOR THE FILING OF A FINAL PLAN OF SUBDIVISION

59. (1) The sub divider shall pay the fees contained in the COSTS AND FEES ACT R.S.N.S., 1967, c. 63, for filing the endorsed final plan of subdivision and certification of a copy of the plan and registering a notice of approval of the plan.

(2) The fee referred to in subsection (1) shall be paid at the time of application for approval of the final plan of subdivision by cheque or money order made payable to the Registry of Deeds.

(3) Where the final plan of subdivision does not receive endorsement of approval by the Development Officer, the sub divider shall be entitled to the return of the cheque or money order referred to in subsection (2).

(4) A processing fee of $100.00 per application for approval of a final plan of subdivision.

Town of New Glasgow: Specification for the Installation of Water, Sewer and Other Services

TABLE OF CONTENTS

INTRODUCTION

The purpose of these Municipal Services Standards and Specifications is to provide the public with the basic requirements for municipal services within the Town of New Glasgow. They have been devised to serve as a guide for planning, design and construction with a view towards standardization of municipal service installation within the town. In addition, these standards and specifications reflect the standard specification for Municipal Services as prepared by a Joint Committee on contract documents between the Nova Scotia Road Builders Association and the Nova Scotia Consulting Engineers Association.

The developer must be aware that these specifications necessitates services from a professional engineer in order to prepare necessary specifications, plans, and detailed design. Any developer who uses this document in preparing contract documents must recognize that he retains full responsibility for his documents. All excavations indicated in the specification should meet the regulations as specified in the Nova Scotia Construction and Safety Act and Regulations.

TOWN OF NEW GLASGOW

STANDARD SPECIFICATIONS

PART 1: DRAWINGS

1.1 All drawings submitted shall be drawn on proper drafting paper and shall contain:

i) Plan view of recommended scale of 1: 500 (1"=40') or 1: 200 (1"=20'), 1: 500 preferred.

ii) Profile view to a vertical scale in the ratio of vertical to horizontal of 1: 10.

iii) Key plan.

iv) Legend for plan and profile.

v) A north arrow, showing grid north.

vi) Dates, scale and drawing title, and make provisions for notes, revisions, approvals, etc.

vii) All existing watercourses and their direction of flow.

viii) Two points of known chainage on the centerline of street to be related to the N. S. Coordinate Survey System.

ix) Survey monument number and elevation from which vertical elevations were derived.

x) Street lines and lot boundaries.

xi) All printing to be performed with a mechanical printer.

1.2 All drawings shall contain a plan and profile view along with cross sections and details as required.

1.3 All drawings shall be stamped and signed by a professional engineer registered in the Province of Nova Scotia.

1.4 All engineering drawings submitted shall be drawn on one of the following standard sheet sizes:

-A0 841 mm x 1189 mm (34" x 48")

-A1 594 mm x 841 mm (24" x 34")

-A2 420 mm x 594 mm (17” x 34”)

-A3 297 mm x 420 mm (11” x 17”)

-A4 210 mm x 297 mm (81/2” x 11”)

1.5 All “ as constructed” drawings shall be prepared on dilar reproducible film, minimum .003” thickness, drawn to an appropriate scale and shall include:

(i) All items contained in Part 1, Section 1.1

(ii) Plan and profile view of all “as constructed” service laterals showing horizontal ties to manholes, hydrants, etc., plus invert elevations of service laterals at property line.

(iii) Minimum foundation elevations for all approved lots within the proposed subdivision.

(iv) A cross-section and details.

(v) The stamp and signature of a professional engineer registered in the Province of Nova Scotia.

PART 2: STREET SPECIFICATIONS

2.1 Street Classification

The Town of New Glasgow street classification and basic criteria shall be as follows:

Designation	R-O-W (min.)	Min. Pavement Width
Arterial	24 m – 45 m (80’ to 150’)	10 m (34’)
Collector	15 m (50’)	8.4 m
Local	15 m (50’)	8.4 m
Cul-de-sac	minimum radius of 17.0 m (55’9”) from center of bulb to edge of R-O-W.	minimum radius of 14.0 m (45’11”) from center of bulb to face of curb.

2.2 Minimum Right-of-Way

The minimum width of a street right-of-way shall be fifteen (15) meters (50’).

2.3 Clearing and Grubbing

All rock clearing and grubbing operations, including the removal of rock, shall be undertaken to the full extent of the street right-of-way. All rocks, trees, stumps, and other organic matter removed during the clearing and grubbing operations shall be transported entirely from the right-of-way.

2.4 Sub grade and Crown

The proposed sub grade shall be graded with a 2 percent crown from the center line at an elevation of 330 mm (13”) below the finished grade of the street using graded material as set out in Section 2.8 of these specifications. Where rock exists to the sub grade, it shall be fractured to 300 mm below sub grade and graded.

2.5 Slopes Cut

All slopes in cut and fill sections shall be constructed outside the street right-of-way and shall be a maximum of 2:1 horizontal to vertical or as otherwise required for less stable material. Rock cuts shall be a minimum of 1:4 or as otherwise required. All overhanging

and/or loose rocks shall be removed and, in areas where a minimum of 1:4 cannot be obtained, slope protection shall be required.

2.6 Slopes Fill

In fill sections, all fill material shall be compacted in uniform layers of 300 mm (12") and compacted to 95 percent standard proctor density. It shall be evenly distributed to ensure proper mixing of rocks and fill materials so that proper compaction and consolidation can be achieved. Under no circumstances shall rock migration, creating voided areas, be permitted around underground structures or elsewhere. No rock exceeding 300 mm in any dimension shall be placed within the top 600 mm of sub grade elevation.

2.7 Base Course

Under stable conditions, the base course gravel shall consist of Class "C" and Class "B" material in compacted minimum layers of 150 mm and100 mm respectively, compacted to 98 percent standard proctor density, and graded with a 2 percent crown from the center line of the proposed street.

2.8 Depth of Base Cover

The required depth of base course gravels is directly dependent upon the conditions of the sub grade. Therefore, the specific design shall be determined by a Geo-Technical Engineering Firm prior to placement and paving.

The gradation of the Class "C" and Class "B" gravel material shall be as per Nova Scotia Department of Transportation standard specifications; Metric Edition. Class "B" and Class "C" gravel sampling and testing shall be in accordance with D.O.T. Standards.

2.9 Grades

The maximum allowable grade of any street shall be 10 percent with a 4 percent being the maximum for 30 m (100') prior to the intersection of two centerlines. The minimum grade of any street shall be 0.5 percent.

2.10 Surface Materials

1) All streets shall contain standard curb and gutter and paved with a minimum of 87 mm hot-mix asphalt. The area behind the curb to street line shall be filled with material not exceeding 100 mm (4") in any dimension and graded at 2 percent to the top of the curb. Asphalt design, placement, sampling, and testing shall be in accordance with Department of Transportation standard specifications, Division 4, Section4.

2) All concrete surface structures shall be a minimum of 30 Mpa (4290 psi), 6 percent air-entrained, 76 mm (3") slump (except for mechanical extruders), cured with rite-cure application in accordance with A.S.T.M. standard specifications C-156 and C-

309. Cold weather protection methods must be followed when air temperature is expected to fall below 5 degrees Celsius.

2.11 Topsoil

The area behind the curb to the property line shall be graded to 2 percent to the curb. A 75 mm layer of topsoil shall be applied together with fertilizer, lime and Canada #1 grass seed.

PART 3: WATER SPECIFICATIONS

3.1 Design Criteria

1) Where the proposed water distribution system forms or may form part of a continuing network to provide water services to surrounding areas, the waterline sizes shall be designed to accommodate these future flows.

2) The New Glasgow Water Utility shall provide the location(s) and available water flow from existing mains.

3) Where possible, fire flows must meet the requirements of the Insurer's Advisory Organization publication, "Water Supply for Public fire Protection".

4) Normal water pressure within the distribution network shall be a minimum of 30 psi and a maximum of 80 psi. Water pressure within a proposed distribution network which falls outside this range, must be approved by the New Glasgow Water Utility.

5) Notwithstanding item 4, the New Glasgow Water Utility may require either boosting of water pressure, or the installation of pressure operated reduction valves to ensure normal pressure to the proposed distribution network.

3.2 Material Reference Standards

The accepted standards are listed in Part 4 of this standard specification.

3.3 Location

All water mains and appurtenances shall be installed completely within the limits of a street right-of-way or some other parcel of land, title to which will be transferred to the Town of New Glasgow. The Utility may, at its discretion, request a certificate, signed by a Nova Scotia land Surveyor, showing the location of all water mains, appurtenances, fittings, laterals, shutoff, etc., in relation to adjacent property boundaries.

The location of water mains and laterals in relation to other underground services shall be governed by, but not limited to Department of Public Health Regulations.

3.4 Pipe Sizes

No water main shall be less than 200 mm (8") in diameter, except by approval of the New Glasgow Water Utility where:

1) A 6" line is requested on looped streets, not exceeding 200 m.

2) Fire flow requirements do not cause a higher hydrant density.

3.5 Pipe Material

All water mains shall be constructed using ductile iron pipe (AWWA C151) or P.V.C. pipe (AWWA C900 and CSA B137.3.M).

All pipe, joints, fittings, gaskets, etc., shall conform to the latest relevant specifications, as listed in Part 8 of this specification.

3.6 Hydrants

Fire hydrants shall be located such that no point will be in excess of 100 m (330') from a hydrant, subject to fire flow requirements for the proposed serviced development.

Refer to Town of New Glasgow Standard Drawings for installation of hydrants, valves, tees, thrust and block, etc.

Specific hydrant type shall be as specified by the New Glasgow Water Utility, complete with two 2 1/2:" nozzles to Nova Scotia standard, one 4" pumper nozzle, to the New Glasgow Fire Department standard, installed with the drain hole plugged.

3.7 Valves and Valve Boxes

A gate valve, approved by the Water Utility, shall be installed on each run and branch at each intersection, except at a cul-de-sac, where it is permitted to install a valve on the cul-de-sac branch only, provided that:

In no case shall valves be spaced more than 305 m (1000') apart, and

In no case shall it be necessary to operate more than four valves to isolate any point on the main.

1) Valves shall conform to AWWA C500, valves boxes to AWWA C500.

2) Refer to Town of New Glasgow Standard Drawing SD6.

3.8 Fittings

All fittings including tees, bends, wyes, crosses, reducers, plugs, sleeves, etc., shall be ductile iron or gray iron. Refer to Part 8 of this specification for material specifications.

3.9 Services

Water services within the right-of-way boundary, shall be ASTM B88, Type K copper, annealed.

Fittings shall be brass to ASTM B62 and approved by Utility.

Refer to Town of New Glasgow Standard Drawing SD7 and SD11.

3.10 Thrust Block and Anchors

Thrust blocks and anchors shall be constructed from 20Mpa concrete.

Refer to Town of New Glasgow Standard Drawing SD4 and SD5.

3.11 Disinfectant

Approved disinfectants shall be sodium hypo chlorite or calcium hypo chlorite to AWWA B301.

3.12 Insulation

Where approved insulation shall be CTSB 51-GP-20M, Type 4, expanded polystyrene.

3.13 Laying Conditions

All water mains and appurtenances shall be laid on a 150 mm (6") layer of compacted gravel or crushed stone which has been places on an undisturbed or other approved trench bottom.

This material shall be used as bedding/backfill to a level of 300 mm (12") above the pipe for the full width of the trench for PVC pipe and all laterals. This dimension may be reduced to 150 mm (6") for ductile iron pipe.

Further backfilling shall be placed in layers to achieve a 95 percent standard proctor.

Refer Town of New Glasgow Standard Drawings SD8 and Sd9 for details.

3.14 Depth of Bury

Depth of bury of water mains shall be as follows:

Ductile iron – 5 feet (min.)
P.V.C. - 6 feet (min.)

Services connected to the mains shall have the same depth of bury as the main to which they are connected. Under certain circumstances, the Utility may permit less depth of bury by using an approved method of insulating the main and laterals.

3.15 Testing

All water mains shall be subjected to a hydrostatic and leakage at the completion of installation. The test pressure shall be the greater of 1.5 times the working pressure or 1035 Kpa, (150 psi)

PART 4: SANITARY SEWER SPECIFICATIONS

4.1 Design Criteria

The sanitary sewer system shall be designed utilizing the following standard criteria:

1) Where the proposed sewer system forms or may form part of a continuing system to provide sewer services to surrounding areas, the sewer line sizes shall be designed to accommodate these future flows.

2) The Town of New Glasgow shall provide the location(s) and available sewer capacity of existing sewers.

3) Design to be based on peak dry weather flows.

4) Infiltration allowance shall equal 1000 imperial gallons pr day; a per capita flow of 75 imperial gallons per day.

5) A peaking factor to be determined using the Harmon formula:

$$M = \frac{1 + 14}{4 + P1/2}$$

6) A gross density of 18 persons per gross acre.

4.2 Material Reference Standards

The accepted standards are listed in Part 8 of this specification.

4.3 Location

All sewer mains and appurtenances shall be installed completely within the limits of a street right-of-way or some other parcel of land, title to which will be transferred to the Town of New Glasgow. The town may, at its discretion, request a certificate signed by a Nova Scotia Land Surveyor, showing the location of all sewer mains, appurtenances, fittings, laterals, shutoff, etc. in relation to adjacent properties. The maximum depth of bury shall be 2 meters (6’).

The location of sewer mains and laterals in relation to other underground services shall be governed by, but not limited to Department of Public Health Regulations.

4.4 Sizes

Sanitary sewer mains shall be a maximum of 200 mm (8") in diameter.

Sanitary sewer laterals shall be 100 mm (4").

Manholes shall be a minimum of 1050 mm (42") in diameter.

4.5 Materials

All sanitary sewer mains shall be P.V.C. SDR35 (min.) to ASTM D3034 and CSA B182.1 and B182.2. All manholes shall meet standard ASTM C-478o and shall have a pre-cast or cast-in-place base. Manhole diameter sizes shall be in conformance with the Town of New Glasgow Standard Drawing SD12, maximum pipe size chart. All manholes shall be constructed using pre-cast sections and "O" ring gaskets and topped with a 900 mm eccentric cone section. Where flat top capping rings are to be used, they shall conform to the 110 Series Loading requirements. Sanitary service laterals shall be P.V.C. SDR28. Refer to Town of New Glasgow Standard Drawing SD13. Manhole frames and covers shall be I.M.P. R-70 within a roadway. For easement areas, the standard manhole frame and cover shall be I.M.P. R-125 (five sided bolts).

Manhole ladders shall conform to Town of New Glasgow Standard Drawing SD13A .

4.6 Grade and Flow

Sanitary sewers shall be laid at a minimum slope of 1 percent and shall be designed to have a minimum flow velocity of 0.7 meters (2') per second and a maximum of 3 meters (15') per second.

4.7 Manholes

Manholes shall be installed at all changes in vertical or horizontal alignment, at all intersections, and in no case shall they be located more than 90 meters (300') apart. Internal drop manholes shall be sized to ensure a minimum width of1000 mm (40') from the inside edge of the internal drop to the opposite inside wall of the manhole.

Pipe openings through manhole walls shall be fitted with a cast-in-wall rubber gasket to ensure a watertight fit against the pipe wall. Pipes are to have a flexible joint within 450 mm (18') of the manhole wall.

Refer to Town of New Glasgow Standard Drawings SD12, SD13, SD14, and SD15 for details.

4.8 Laying Conditions

All sanitary sewer mains, laterals, and manholes shall be installed on a minimum of 150 mm (6') layer of compacted crushed stone, which has been placed on an undisturbed or other approved trench bottom.

This material shall be used as bedding/backfill to a level of 300 mm (12') above the pipe.

Further backfilling, using approved material as specified in Town of New Glasgow Standard Drawing SD8 and SD9, shall achieve a 95 percent standard proctor. Refer to Town of New Glasgow Standard Drawing SD13A.

Sanitary sewers shall be connected to the main using an in line "tee" or with a saddle approved by the Engineer. They shall enter the main at the spring line or above and at an angle of 90 degrees or less, measured from the centerline of the lateral to the centerline of the main, upstream from the connection.

Long radius 22 ½ degrees bends shall be used for the installation of service laterals.

The minimum slope of a lateral shall be 2 percent.

Laterals entering manholes shall be at the top of the benching.

When service laterals enter manholes, a pipe stub shall be incorporated to ensure a flexible joint within 450 mm (18') from the outside wall of the manhole. Sanitary sewer laterals shall be capped or plugged at the termination point and a 48 mm x 96 mm marker stake installed, painted red, and designated "sanitary", written in black.

Refer to Town of New Glasgow Standard Drawing SD10.

4.9 Pumping Station

Where a pumping station and appurtenances are required, they shall be designed 8in accordance with standard practices of the industry and approved by the Town Engineer.

4.10 Force Mains

Sewer force mains shall be ductile iron AWWA C155 CL. 52 or P.V. C. Series 160 or AWWAC-900 and shall be installed, tested, etc., following the Town of New Glasgow standards for water mains.

4.11 Testing

Gravity sanitary sewer mains shall be subjected to a low-pressure air test. The sections to be tested shall include mains, fittings, and laterals.

Testing shall be conducted using an approved air test method. The air testing shall be conducted at three and a half 93.5) psi and after the initial stabilization period, pressure

shall be maintained, with no decrease, for a five minute period. A television inspection and report shall be required for the sanitary sewer and shall be conducted after completion of primary servicing. A mandrel test shall be performed on all P.V.C.-pipe prior to acceptance of primary servicing. Testing shall be in accordance with the manufacturer's specification.

PART 5: STORM SEWERS

5.1 Design Criteria

1. Storm Frequencies

a) The following frequencies shall be used for design of storm drainage systems within the Town of New Glasgow.

b) Where an underground drainage system is designed as a minor system, the design of the minor system shall be based on storm frequencies of one in five years for all lands, except high value commercial and business areas designated by the town.

c) Where a minor system is designated according to subsection 1a, the total capacity of the minor and major system shall be based on a storm frequency of one in one hundred years.

d) Watercourses, drainage channels, and underground drainage systems that do not conform to subsection one shall be designated on a basis of a storm frequency or one in one hundred years.

2. Intensity Duration Frequency Curves

Because there is no meteorological reporting station in the Town of New Glasgow, the designer must use the closest geographical location where this information is available. Curves may be obtained from the Rainfall Frequency Atlas for Canada. The designer, in all cases, must use the most conservative estimates deemed to be appropriate.

3. Design Parameters

a) The Town of New Glasgow will require the designer to indicate the design methodology used to obtain the storm water flows.

b) Designs shall be based on the state of development expected to exist 20 years from the time of design. Depending upon the existing zoning, the design shall be based on the development of all upstream lands.

c) Further design horizons than those specified in item 2, may be designed for stage installation of storm water facilities subject to satisfactory evidence that arrangements had been made for ultimate installation of complete facilities.

d) Where the area under design includes a significant portion of undeveloped land, design flows shall be the largest estimated for winter and year round conditions, based upon appropriate rainfall data.

5.2 Material Reference Standards

The accepted standards for storm sewer materials are listed in part 8 of this by-law.

5.3 Location

All storm sewer and appurtenances shall be installed completely within the limits of a street right-of-way or some other parcel of land, title to which will be transferred to the Town of New Glasgow. The town may, at its discretion, request a certificate, signed by a Nova Scotia Land Surveyor, showing the location of all sewer mains, appurtenances, fittings, laterals, manholes, etc. in relation to adjacent property boundaries.

5.4 Sizes

Storm sewer mains shall be a minimum of 300 mm 912') in diameter, except in the highest areas of a watershed, sewer laterals shall be 100 mm (4"). Manholes shall be a minimum of 1050 mm (42") in diameter.

5.5 Materials

All storm sewer mains shall be P.V.C. SDR35 (min.) to AST, D3034 and CSA B182.1 and B182.2 or concrete, non-reinforced to ASTM C14-m or CSA A257. 1-M, reinforced to ASTM, C76-M or CSA A275 2 M. Service laterals shall be P.V.C.SDR28 with locked in rubber gaskets.

All manholes shall meet standard ASTM C-478 and shall have a pre-cast or cast-in-place base. Manhole diameter sizes shall be in conformance with the Town of New Glasgow Standard Drawing SD12, maximum pipe size chart. All manholes shall be constructed using pre-cast sections and "O" ring gaskets and topped with a 900 mm eccentric cone section. Where flat top capping rings are to be used, they shall conform to the 110 Series Loading Requirements. Manhole frames and covers shall be I.M.P. R-70 within a roadway. For easement areas, the standard manhole frame and cover shall be I.M.P. R-125 (five sided bolts). Manhole ladders shall conform to the Town of New Glasgow Standard Drawing SD13A.

5.6 Manholes

Manholes shall be installed at all changes in vertical or horizontal alignment, at all intersections, and in no case shall they be located more than 90 meters (300') apart. Internal drop manholes shall be sized to ensure a minimum width of 1000 mm (40") from the inside edge of the internal drop to the opposite inside wall of the manhole.

Pipe openings through manhole walls shall be fitted with a cast-in-wall rubber gasket to ensure a watertight fit against the pipe wall. Pipes are to have a flexible joint within 50 mm (18") of the manhole wall.
Refer to the Town of New Glasgow Standard Drawing SD12 for details.

5.7 Laying Conditions

All storm sewer mains, laterals, and manholes shall be installed on a minimum of 150 mm (6") layer of compacted crushed stone, which has been placed on an undisturbed or other approved trench bottom.

This material shall be used as bedding/backfill to a level of 300 mm (12") above the pipe. Further backfilling, using approved material as specified in Town of New Glasgow Standard Drawing SD8 and SD9, shall achieve a 95 percent standard proctor.

5.8 Laterals

Storm sewer service laterals shall be a minimum of 100 mm (4") in diameter and connected to the main at an angle of 90 degrees. Connection to the main (concrete), shall be made by "KOR-N-TEE" type couplings or approved equal. All connections to the main shall be executed using an approved pipe cutter. Connections to P.V.C. storm mains shall be laterals shall enter the main at a spring line or above. Long radius 22 ½ degree bends shall be used for installation shall be laid a minimum grade of 2 percent in a compacted granule bedding and backfilled in accordance with the Town of New Glasgow Standard Drawing SD19. Service laterals shall be marked by a temporary 48 mm by 96 mm marker stake, painted green with the designation "storm" written in black.

5.9 Catch basins

1) Catch basins shall be installed in the gutter line of the street. Refer to the Town of New Glasgow Standard Drawings SD17 and SD18. Catch basin frames and covers shall be New Glasgow standard as manufactured by the New Glasgow Founder or approved equal.

2) Catch basins shall be installed in sufficient numbers so as to prevent flooding from the road surface, with a maximum spacing of 100 meters (330'). Where the road surface is designed to carry a major storm and foundation drains and catch basins are connected to the piped system carrying the minor storm, inlet controls shall be designed on catch basins to prevent foundation flooding.

3) Catch basin lead pipe shall be either C14 or C16 gasket, concrete pipe or SDR-28 P.V.C. Catch basin leads shall have a minimum bury of one meter (3') and shall enter the closest storm manhole. The invert of the catch basin lead shall not exceed the invert of the manhole by more than one meter (1.5'). No catch basin lead shall protrude into the catch basin or manhole by more than 75 mm (3") and the catch basin lead shall be grouted on the inside and the outside of the structure. Catch basin leads

at the manhole shall incorporate a flexible joint within 450 mm (18”) from the outside wall of the manhole. The minimum diameter of this lead pipe shall be 250 mm (10”), to carry the flow from one catch basin and 300 mm (12”) to carry the flow from two catch basins.

PART 6: CURB AND GUTTER SPECIFICATIONS

6.1 Design Criteria

1) Concrete curb and gutter construction shall conform to the following specifications and as per Standard Drawing SD2.

2) Curb and gutter shall be constructed of 30 Mpa (4290 psi) concrete, 6 percent air entrained and 75 mm (3") slump. Slump shall be decreased when mechanical extruders are used.

3) Gravel base shall be Class "B" gravel, evenly graded, compacted 95 percent standard proctor density, and extending 150 mm (6") outside the face of the gutter and the back of the curb.

6.2 Driveway Openings

1) Residential driveway openings shall be 4 meters wide for "single" driveways and 6 meters for "double" driveways, with a 300 mm (1') taper on each end.

2) Commercial driveway opening widths shall conform to the same specifications. The maximum width of a commercial driveway opening shall not exceed 10 meters.

6.3 Control Joints

1) Concrete curb and gutter shall be a continuous pour with control joints of one quarter the thickness every 3 meters (10'). Control joints shall be installed using steel template plates or by saw cutting.

2) Construction joints of mastic fibrous material extending through the thickness of the curb and gutter shall be located as follows:

a) Where fresh concrete is poured against previously poured concrete,

b) Where sidewalk and driveway ramps abut the curb and gutter, and

c) Within 750 mm (2.5') of the outside edges of catch basin frames

6.4 Testing and Control

All concrete sampling and testing shall be in accordance with CSA A23.1 and A23.2. All concrete test results must be provided to the Town prior to acceptance.

Concrete shall be placed only when the temperature for the following 24 hours is forecast to be above 8 degrees Celsius and below 32 degrees Celsius, unless curing methods and materials are in place and approved by the Engineer.

PART 7: WALKWAY SPECIFICATIONS

7.1 Width, Location and Drainage

The minimum width of a walkway right-of-way shall be 4.5 meters (1.5'). Where municipal sewer or water systems are to be constructed within the walkway right-of-way, the minimum width shall be 6 meters (20').

As much as possible, the constructed portion of the walkway shall be centrally located within the right-of-way.

Where possible, all manholes and water appurtenances shall be to the sides of the 1800 mm asphalt walkway.

Where possible, and with consideration of Item 1, the total width of the right-of-way shall be graded in such a way as to control surface and watercourse drainage within the walkway right-of-way and adjacent properties. This can be accomplished using culverts, drains, swales and/or catch basin.

7.2 Materials

The walkway shall be constructed as follows:

1) 150 mm (6") Class "B" gravel base, 2400 mm (8") wide and compacted to 95 percent standard proctor density; and

2) 50 mm (2") thickness, hot-mix asphalt, 1800 mm (6") wide.

7.3 Grades

The maximum grade for a walkway shall not exceed 15 percent. Where site topography dictates grades of more than 15 percent, handrails are to be installed.

7.4 Fencing

All walkways in residential and commercial areas shall be fenced on both sides for the entire lengthy of the walkway right-of-way. Fencing shall be chain link fencing of minimum height of 1.2 meters (4').

7.5 Restoration

Both sides of any asphalt walkway shall be seeded from the edge of the walkway to the edgy of the right-of-way (fence), if feasible.

All reset structures within the walkway easement shall be adjusted to +/- 6 mm (1/4”) of finish grade.

All walkways shall be constructed at the time of the installation of the services and streets. Natural vegetation of the areas shall be preserved during walkway construction, where possible. Mature trees and shrubbery shall remain and clearing and grubbing shall be restricted to the construction area.

7.6 Lighting

Walkways shall be oriented so as to make use of the existing street lighting, where possible.

PART 8: MATERIAL REFERENCE STANDARDS

8.1 Earthwork Materials

1) **Selected backfill:** common material from site excavation, free from: stumps, trees, roots, sod, organics, rocks, boulders, and masonry larger than 200 mm in any dimension; and any other deleterious materials.

2) **Borrow:** well graded material from contractor's own sources meeting the specification for selected backfill.

3) **Sand:** hard, granular, sharp material, well graded from coarse to fine, free of impurities, chemicals or organic matter, and graded as follows:

Sieve Size	% Passing
5 mm	100
0.16 mm	0-5

4) **Clear snow:** crushed and screened, hard, durable stone, free from clay and organic matter and graded as follows:

a) Clear stone, 28 mm:

Sieve Size	% Passing
28 mm	95-100
14 mm	25-60
5 mm	0-10

b) Clear stone, 84 mm:

Sieve Size	% Passing
84 mm	100
56 mm	0

5) **Gravels:** to Division 3 of Province of Nov Scotia Department of Transportation standard specification, Metric Edition.

a) Class B:

Sieve Size	% Passing
28 mm	100
14 mm	50-85
5 mm	30-70
0.160 mm	0-10
0.08 mm	0-5

b) Class C:

Sieve Size	% Passing
56 mm	100
28 mm	60-80
5 mm	25-45
0.160 mm	1-10

c) Class E:

Sieve Size	% Passing
112 mm	100
14 mm	not more than 50
0.08 mm	not more than 10

6) **Riprap:** durable field or quarry stone with rough surfaces and angular shape, minimum thickness not less than one-third of length or width, and conforming to weights or sizes indicated. Rounded stone or boulders will not be accepted.

7) **Lumber:** sound, construction, grade, spruce or fir.

8.2 Concrete Materials

Portland Cement: to CAN3-A5- Type10, Normal.

Aggregate: to CAN3-A23.1-M.
Water: to CAN-A23. 1-M

Admixtures: Air Entraining: to CAN3-A26 1-M.

Chemical: to CAN3-A266. 2 M.

Reinforcement: Bars: to CSA G30.12-M, billet steel, grade 400, deformed.

Welded Steel Wire Fabric: to CSA G30. 5-M.

Bar Supports and Spacers: to CAN3-A23.1-M.

Formwork: Forms: to CN3-A23.1-M, plywood and lumber, clean and free of loose knots or splits.

Form Ties: to CAN3-A23.1-M, removable or snap off metal ties, fixed or adjustable length, free of devices leaving holes larger than 25 mm diameter and 10 mm deep in concrete surface.

Release Agent: non-staining natural organic chemicals of spray able consistency which prevent adhesion of concrete to forms.

Curing Compound: to ASTM C309, Type 2.

Water stops: ribbed, extruded P.V.C. of type and size indicated.

Non-Shrink Grout: pre-mixed, dry pack or pour-able, containing non-metallic aggregate, plasticizing agents and cement, minimum compressive strength of 45 MPa at 28 days.

8.3 Asphalt Materials

Asphalt Materials: to Province of Nova Scotia Department of Transportation standard specification – Metric Edition, Division 4.

8.4 Asphalt Concrete

Asphalt Concrete Mix: to province of Nov Scotia Department of Transportation standard specifications – Metric Edition, Division 4, Section 4, and type indicated.

8.5 Waterline Materials

1) Ductile-iron Pipe and Fittings:

a) **Pipe:** to AWWA C151, cement mortar lined.

b) **Fittings:** to AWWA C110, cement mortar lined, minimum pressure rating 1035 kPa.

c) **Cement Mortar Lining:** to AWWA C104.

d) **Joints:** mechanical or push-on to AWWA C111; flanged where indicated, to AWWA C110 with Class 125 flanged ends to ANSI B16.1

2) Polyvinyl Chloride Pipe and Fittings:

a) **Pipe and Joints:** to CSA B137.3-M cast-iron outside diameter gasket bell-end joint.

b) **Fittings:** **Gray or ductile-iron:** to AWWA C110, cement mortar lined, minimum pressure rating 1035 kPa.

Cement mortar lining: to AWWA C104.

Joints, mechanical or push-on: to AWWA C104.

3) Hydrants:

1) Dry barrel type: to AWWA C502 and as follows:

a) Depth of burial: as indicated

b) Barrel: two-piece with safety breakaway flange and stem.

c) Main valve: compression type, 134 mm minimum diameter

d) Inlet connection: mechanical joint, 150 mm minimum diameter.

e) Nozzles: two hose and one pump, with threads to standard of Fire Authority having jurisdiction.

f) Direction of opening: counterclockwise.

g) Operating nut: 32 mm square.

h) Color: to standard of Fire Authority having jurisdiction

4) Gate Valves:

1) Buried: to AWWA C500, minimum pressure rating 1035 kPa or AWWA C509 up to300 mm, minimum working pressure rating 1380 kPa and as follows:

a) **Body:** cast-iron with mechanical joint ends.

b) **Mechanism (AWWA C500):** bronze mounted, solid wedge or double disc gates, non-rising spindle and O-ring seals.

c) Mechanism (AWWA C509): wedge disc with resilient rubber seat ring and machined seating surface, non-rising spindle, and O-ring seals.

d) Direction of opening: counter clockwise

e) Operating Nut: 50 mm square

f) Provide centering disc.

5) Valve Boxes:

1) Valve Boxes: to AWWA C500 and as follows:

a) Cast-iron, slide type, adjustable for depth of pipe below finished grade.

b) Covers marked “Water”.

c) Lugged to prevent turning and rolling of cover, and cover notched to suit.

6) Service pipe and Fittings:

a) **Copper tubing:** to ASTM B 88, type K annealed, minimum pressure rating 1035 kPa.

b) **Joints:** compression type, minimum pressure rating 1035 kPa. For polyethylene pipe to CSA B137. 1-M with stainless steel liner.

c) **Corporation stop:** brass to ASTM B62, compression type, inlet threads to AWWA C800.

d) **Curb stop and drain:** brass to ASTM B 62, compression type joints and O-ring seal.

e) **Service clamp:** Bronze body, confined O-ring seal cemented in place, and straps suitable for connecting main. Outlet tapped and threaded to AWWA C800.

f) **Service box:** adjustable type, cast-iron bottom section, cast-iron lid with recessed pentagon nut and internal stem to suit depth of bury; service box to have appropriate foot piece.

7) Valve Boxes:

1) Valve boxes: to AWWA C500 and as follows:

a) Cast-iron, slide type, adjustable for depth of pipe below finished grade.

b) Covers marked “Sewer”.

c) Lugged to prevent turning and rolling of cover, and cover notched to suit.

8) Thrust Blocks and Anchors:

a) Thrust Blocks and Anchors: 20 Mpa concrete.

9) Insulation:

a) **Insulation:** to CGSB 51-GP-20-M, Type 4, expanded polystyrene.

8.6 Sanitary Sewer Materials

1) Polyvinyl Chloride Pipe and Fittings:

a) **Pipe and Fittings:** Type PSM Polyvinyl Chloride.

i) For diameter 150 mm and under CSA b182.1-M

ii) For diameter 200 mm and over CSA B182. 2-M.

b) **Joints:** bell and spigot with rubber gasket recommended by pipe manufacturer.

2) Service Saddles:

a) **PVC main:** PVC strap-on saddle, tee or wyes, with gasket, all stainless steel strap and O-ring in branch end

8.7 Storm Sewer and Culverts

1) Concrete Pipe and Fittings:

a) Pipe and Fittings:

i) Non-reinforced: to ASTM C14-M or CSA A257.1-M.

ii) **Joints:** bell and spigot with flexible rubber gaskets to CSA A257.2-M.

b) **Joints:** bell and spigot with flexible rubber gaskets to CSA A257.3-M

2) Polyvinyl Chloride Pipe and Fittings:

a) **Pipe and Fittings:** Type PSM polyvinyl chloride.

i) For diameter 150 mm and under: CSA B182.1-M.

ii) For diameter 200 mm and over: CSA B182.2-M

b) **Joints:** bell and spigot with locked in rubber gaskets.

3) Corrugated Steel Pipe and Fittings:

a) **Pipe and Fittings:** to CAN3-G401-M galvanized.

4) Service Saddles:

a) **Concrete main:** cast-iron or PVC with gasket, all stainless steel strap, or bolt on, and O-ring in branch end.

b) **PVC main:** PVC strap-on saddle, tee, or wyes with gasket, all stainless steel clamps and O-ring in branch end.

c) **Corrugated steel pipe:** prefabricated corrugated steel saddle as specified for corrugated steel pipe.

8.8 Pre-cast Manholes and Catch Basins

1) Pre-cast Bases and Sections

a) **Pre-cast concrete bases and Sections:** to AST, C478-M.

2) Gaskets

a) **O-rings:** to CSA A257.3-M.

b) **Bituminous Compound:** to CGSB 56-GP-4.

3) Metal Castings

a) **Frames, covers and gratings:** to ASTM A48, gray cast iron, factory coated.

4) Insulation

a) **Rigid Insulation:** to CGSB 51-GP-20-M, Type 4, expanded polystyrene.

5) Concrete

a) **Cast in place base:** to Section 03300, min. 20 Mpa at 28 days, air entrained, 80 mm slump, water/cement ration: 0.50 maximum.

b) **Grade Adjustments:** cast-in-place to Section 03300, min. 30 Mpa at 28 days, air entrained, 25 mm slump. Water/cement ratio: .45 max.

6) Grout

a) Mortar mix consisting of 1 part cement,, 1 part lime, 4 ½-5 parts sand, and water.

8.9 Pressure Sewers

1) Ductile-Iron Pipe and Fittings

a) **Pipe:** to AWWA C151, cement mortar lined.

b) **Fittings:** to AWWAC 110, cement mortar lined, minimum pressure rating 1035 kPa.

c) **Cement Mortar Lining:** to AWWA C104

d) **Joints:** mechanical or push-on to AWWA C111; flanged to AWWA C110 with Class 125 flanged ends to ANSI B16.1.

2) Polyvinyl Chloride Pipe and Fittings

a) **Pipe and Joints:** CSA B137.3-M, cast-iron outside diameter, gasket bell-end joint.

b) **Fittings:**

i) **Gray or ductile-iron:** to AWWAC 110, cement mortar linied, minimum pressure rating 1035 kPa.

ii) **Cement mortar lining:** to AWWA C104.

iii) **Joints, mechanical or push-on:** to AWWA C111.

3) Gate Valves

a) **Buried:** to AWWA C500, minimum pressure rating 1035 kPa or AWWA C509 up to 300 mm, minimum pressure rating 1380 kPa and as follows:

i) **Body:** cast-iron with mechanical joint ends.

ii) **Mechanism (AWWA C509):** wedge disk with resilient rubber seat ring and machined seating surface, non-rising spindle, and "O" ring seals.

iii) **Mechanism (AWWA C500):** bronze mounted, solid wedge or double disc gates, non-rising spindle, and "O" ring seals.

iv) **Direction of opening:** counter clockwise.

v) **Operating Nut:** 50 mm square.

vi) Provide centering disc.

PART 9: EROSION CONTROL MEASURES FOR THE DEVELOPMENT OF LAND DRAINING DIRECTLY INTO A BODY OF WATER

9.1 Erosion and sediment control measures for all development that takes place on lands; that drain directly into lakes, streams, rivers or any existing watercourse; must be approved by the Town Engineer.

9.2 Site design shall make optimum use of existing topography and vegetation and minimize cut and fill operations. During the construction, site design is to prevent/minimize surface water flows across the construction site or from the construction directly to adjacent watercourses.

9.3 The construction, maintenance and use of buffers and other surface water flow control measures adjacent to all existing watercourses shall be incorporated into the design and development of lands adjacent to watercourses.

9.4 Storm-water management systems shall be an integral part of the overall site design and development. Measures such as temporary diversionary channels and earthen cofferdams are to be used to prevent upstream surface water from traversing construction sites.

9.5 Diversionary channels constructed in erodible or silt-forming materials shall be stabilized with protective rock, plastic sheeting or other approved materials before any flow is diverted.

9.6 Immediately following the excavation, backfilling, grading and construction of streets and services, base course gravelling shall be undertaken. Hydro seeding of slopes of more than 2:1 shall be undertaken within one week of base course gravelling.

9.7 In the dewatering of excavated areas, water shall not be discharged directly into existing watercourses. Dewatering of excavated areas shall be undertaken in a manner designed to remove suspended silt.

9.8 During the initial site development process and subsequent residential lot development, due care and attention shall be given to keeping the site clear and free of deposited mud material and dust to prevent silt build up in the storm sewer system.

9.9 Development of land draining directly into a body of water may be subject to more extensive erosion and sediment control measures as a result of provincial legislation or regulations, specifically under the control of the Department of Environment.

For examples of more extensive erosion control measures, refer to the ***Province of Nova Scotia Erosion and Sediment Control Manual and Guidelines for use on Construction Sites*.**

PART 10. STANDARD SPECIFICATIONS

SD1 **Typical Cross Section of Finished Residential Street**

SD2 **Concrete Curb Detail**

SD3 **Fire Hydrant**

SD4 **Thrust Block Requirements**

SD5 **Thrust Block Details**

SD6 **Gate Valve and Valve Box**

SD7 **Water Service Connections**

SD8 **Trench Section**

SD9 **Trench Sections**

SD10 **Sanitary Sewer Service Connection**

SD11 **Typical Lateral Connection**

SD12 **1050 0 Precast Manhole with Cone Section**

SD13 **Precast Manhole with Flat Top**

SD14 **Cast-in-place Base for Precast Manhole**

SD15 **Precast Manhole with Inside Drop**

SD16 **Precast Manhole with Outside Drop**

SD17 **Precast Catchbasin 600 sq.**

SD18 **Precast Catchbasin 900 Diameter**

SD19 **Storm Sewer Service Connection**

SD20 **Catchbasin Silt Trap**

SD21 **Watercourse Catchbasin**

SD22 **Asphalt Patching**