

SUBDIVISION SERVICING BYLAW APPROVED PRODUCTS LIST
Administrative Procedure No. 23/22

PURPOSE:

To ensure that quality materials are used in the construction of City infrastructure and to ensure that standard equipment is installed for ease of maintenance and to keep the supply of needed replacement/repair parts to a minimum.

PROCEDURE:

| Item Description | | Approved Product | Standard | Comments/Restrictions | |
|--------------------------------|-------|-------------------------------|---|--|---|
| 1. Waterworks | | | | | |
| 1.1 Pipe | | | | | |
| | 1.1.1 | Polyvinyl Chloride Pipe (PVC) | Ipex Northern Pipe Products Royal Group | CSA B137.3 AWWA C900 DR 25, 18 and 14 AWWA C905 DR 51, 41, 32.5, 25, 21 and 18 | C900 Sizes 100 – 300 mm C905 Sizes 350 – 1200 mm |
| 1.2 Fittings | | | | | |
| | 1.2.1 | Cast Iron Fittings | McAvity Terminal City Canada Pipe Union Foundry Co. | ASTM C110-82 ASTM B16.1-1975 Epoxy Coating ANSI/AWWA C116/A21.16.03 | North American Controlled Manufactured Push on/Hub fittings only 17 pound magnesium anodes |
| | 1.2.2 | Ductile Iron Fittings | Terminal City Canada Pipe Union Foundry Co. Star Pipe Products | ASTM C153-84 ASTM B16.1-1975 Epoxy Coating ANSI/AWWA C116/A21.16.03 | North American Controlled Manufactured Push on/Hub fittings only 17 pound magnesium anodes |
| | 1.2.3 | PVC Extruded Fittings | IPEX Inc. Galaxy Plastics Ltd. | CSA B137.2 and B137.3 AWWA C907 (100-300 mm) | Bends must be long radius type |
| 1.3 Couplings | | | | | |
| | 1.3.1 | Couplings | Hymax Romac Ind. | | Epoxy coated Type 304 SS Bolts Must be manufactured with an anode connection point 17 pound anodes |
| 1.4 Restraining Devices | | | | | |
| | 1.4.1 | | Must meet standards listed | ASTM A536 Grade 65-45-12 ANSI/AWWA C111/A21.11 ANSI/AWWA C153/A21.53 | Epoxy Coated Type 304 SS Bolts |
| 1.5 Tapping Sleeves | | | | | |
| | 1.5.1 | Tapping Sleeves | Robar Terminal City Hymax | Stainless Steel or Epoxy Coating ANSI/AWWA C116/A21.16.03 | |

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|--------------------------|--------|--|---|--|---|
| 1.6 Fire Hydrants | | | | | |
| | 1.5.1 | Fire Hydrant | Terminal City Clow Canada | AWWA C502 | Painted Yellow (Hydrant) Compression type 2.75 m Minimum Bury 17 Pound magnesium anodes Plug drain holes No Stainless steel bolts |
| 1.7 Standpipes | | | | | |
| | 1.7.1 | 50 mm Standpipe | Terminal City Clow Mueller | | Compression type 2.75 m Minimum bury 17 pound magnesium anodes |
| 1.8 Valves | | | | | |
| | 1.8.1 | Mainline Gate Valves | Clow Canada Terminal City Mueller | AWWA C509 Interior to AWWA C550 Exterior – Electrostatically applied fusion bonded epoxy coated | Resilient Seat Sizes 100 – 350 mm Push on/Hub connections only 17 pound magnesium anodes Comes with Steel Extension Stem 25 x 25 mm with rock guard altered for steamer hose access |
| | 1.8.2 | Nelson Type Valve Boxes | Terminal City Iron Works Star Pipe Products Dobney | | Terminal City Nelson Type C900 pipe riser |
| | 1.8.3 | Adjustable Valve Box | EJ castings | | 5-1/4" valve box and lid In asphalt surface only |
| 1.9 Water Service | | | | | |
| | 1.9.1a | Water Service Pipe 25 mm copper | Noranda Wolverine Hai Liang Great Lakes Copper | ANSI H23.1 ASTM B88 AD WWT-799 ASTM F1281 CSA 137.1 AWWA C901 | Type K Soft Copper |
| | 1.9.1b | Water Service Pipe 25 mm PEX (cross link polyethylene) | Polytubes – Series 904 Rehau | AWWA C904 ASTM F876 ASTM F877 ASTM F2023 | Copper Tube Size |
| | 1.9.2 | Water Service Pipe 50 mm | Polytubes – Series 200 Iplex – Gold901 | Can/CSA B137.1 | 200 PSI HDPE Copper Tube Size |
| | 1.9.3 | Compression Coupling | Mueller Cambridge | AWWA C907 CSA B137.2 and B137.3 | Compression to Compression |
| | 1.9.4 | Water Service Saddles | Robar Mueller | 2706 CD2 or SC2 | Double Strap Stainless Steel CC Thread Epoxy Coated |
| | 1.9.5 | Corporation Stops | Mueller Cambridge | | Sizes 19 – 50 mm CC Thread and Compression |
| | 1.9.6 | Curb Stop | Mueller Cambridge | | Sizes 19 – 50 mm Full Flow, Full Port Compression to Compression |

| | | Item Description | Approved Product | Standard | Comments/Restrictions |
|--|-------|-------------------------|-------------------------|-----------------------|---|
| | 1.9.7 | Service Box | Mueller Trojan | CSB1 A726 and A728 | 2.75 m Bury Epoxy Stand Pipe Epoxy Coated Boot Internal Rod 300 to 600 mm below surface |

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|------------------------|-------|---|--|---|---|
| 2. Sewer | | | | | |
| 2.1 Storm Pipe | | | | | |
| | 2.1.1 | Concrete Pipe | Ocean Construction Langley Concrete Group Kon Kast | ASTM C14, C76, A443, C655 | 600 mm and larger Type 50 Cement |
| | 2.1.2 | Polyvinyl Chloride Pipe | Ipex Royal Group JM Manufacturing Northern Pipe | CSA B182.2 ASTM D2412 AD NQ3624-060 | DR28 100 – 150 mm DR35 200 – 900 mm |
| | 2.1.3 | Ultra Rib/Kor Flo | Ipex Royal Group | CSA B182.4 ASTM F794 | 300 mm and larger |
| | 2.1.4 | Perma-Loc Class 5 Kor Flo | Ipex Royal Group | CSA B182.4 ASTM F794 | 600 mm and larger |
| | 2.1.5 | Corrugated High Density Polyethylene Pipe | Armtec – Boss 2000 | ASTM D3350 CSA B182.8 ASTMD1248 F667 | Bell and spigot with gaskets |
| | 2.1.6 | Corrugated Steel Pipe | Armtec (Culverts only with the exception of round Ultra-flo which may be used as storm sewer) Spir-L-Ok (Culverts only) | CSA CAN3-G401, M81 | Minimum 2.0 mm thickness Coating as per Canadian Durability Guideline for CSP - CSP1 |
| | 2.1.7 | Steel Reinforced Polyethylene Pipe | Armtec – Boss 300 Contech – Duromax | CSA B182.14 CSA B182.15 ASTM 2562 | 900 mm and larger Soil tight or low head joints not approved |
| | 2.1.8 | Large Diameter High Density Polyethylene Pipe | KWH – Weholite | ASTM F894 | 900 mm and larger Thermal fusion welded joints |
| 2.2 Vaults | | | | | |
| | 2.2.1 | Pre-Cast Reinforced Concrete | Grosso Kemp A & E Kon Kast Ocean Langley Concrete Group | ASTM C478 | Pre-cast concrete Minimum 960 opening H2O/CS-600 Loading Type 50 Cement |
| 2.3 Catchbasins | | | | | |
| | 2.3.1 | Barrels | Grosso Kon Kast Ocean Langley Concrete group | ASTM C478 | Pre-cast Concrete 600 mm Diameter 1500 mm Deep H2O/CS-600 Loading Type 50 Cement |

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| | 2.3.2 | Complete Bases and Lids | Grosso Kemp Kon Kast Ocean Langley Concrete Group | ASTM C478 Pre-cast Concrete 360 maximum 640 mm Opening H2O/CS-600 Loading Type 50 Cement |
| | 2.3.3 | Lawn Basin | Langley Concrete Group Ocean Le-Ron Plastics Inc. | Dobney B22A grate Type 50 Cement |
| | 2.3.4 | Frame and Grate | Dobney Foundry Langley Concrete Group Norwood Foundry | Type 1 B23 Grate and 24 Frame LH or RH Type B18 Grate and 19 Frame LH or RH Grate to indicate that stormwater drains to fish habitat or stream |
| 2.4 Headwalls | | | | |
| | 2.4.1 | Pre-Cast concrete | Grosso Kemp Kon Kast Langley Concrete Group J&J Drainage Products | Pre-Cast Concrete Type 50 Cement |
| 2.5 Storm and Sanitary Manholes | | | | |
| 2.5.1 Barrels | | | | |
| | 2.5.1a | Barrels – Storm | Grosso Kemp Kon Kast Ocean Langley Concrete Group | ASTM C478 Pre-Cast Concrete Minimum 1050 mm H2O/CS-600 Loading Type 50 Cement |
| | 2.5.1b | Barrels – Sanitary (PVC) | Ipex | 1200 mm Diameter |
| | 2.5.1c | Barrels – Sanitary (concrete) | Grosso Kemp Kon Kast Ocean Langley Concrete Group | ASTM C478 1200 mm Diameter Pre-Cast Concrete H2O/CS-600 Loading Type 50 Cement Concrete barrels must have an approved riser wrap to reduce infiltration |
| | 2.5.1d | Riser Wrap – Sanitary Manholes | Wrapid Seal Boa Tape Riser Wrap | Minimum 300 mm wide centered on joints |
| | 2.5.2 | Concrete Lid-Storm | Grosso Kemp Kon Kast Ocean | ASTM C478 Pre-Cast Concrete Minimum 1050 mm H2O/CS-600 Loading Type 50 Cement |

| | | Item Description | Approved Product | Standard | Comments/Restrictions |
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| 2.5.3 Precast Bases | | | | | |
| | 2.5.3a | Storm Bases | Grosso Kemp Kon Kast Ocean Langley Concrete Group | | Type 50 Cement |
| | 2.5.3b | Sanitary Bases | As per approved Barrels with HDPE liner (Predl) | | Lined with HDPE Type 50 Cement |
| | 2.5.4 | Frame and cover | Dobney Foundry Langley Concrete Group Norwood Foundry | | C18 Frame and Cover C18D Frame and Cover H2)/CS-600 Loading TF-39 Boulevard and landscaped area only |
| | 2.5.5 | Adjustable Frame and Cover | EJ Castings | ASTM A536 | AJ633ESR In Asphalt surfaces only |
| 2.6 Sanitary Sewer Pipe | | | | | |
| | 2.6.1 | PVC Pipe | Ipex Northern Pipe Products Royal Group | CSA B182.2 ASTM D2412 and NQ3624-060 | DR28 100 – 150 mm DR35 200 – 1050 mm |
| 2.7 Services – Sanitary and Storm | | | | | |
| | 2.7.1 | Sanitary Service (PVC) | Ipex Northern Pipe Products Royal Group | CSA B182.2 ASTM B2413 and NQ3624-060 | DR28 100 – 150 mm |
| | 2.7.2 | Storm Service (PVC) | Ipex Northern Pipe Products Royal Group | CSA B182.2 ASTM B2413 And NQ3624-060 | DR28 100 – 150 mm DR35 150 mm and up |
| | 2.7.3 | Service Wyes and Fittings | Ipex Le-Ron Plastics Inc. Galaxy Plastics Ltd. | CSAB182.2 ASTM D3034 and F1336 | DR28/35 Bell and Spigot All new main construction |
| | 2.7.4 | Saddles | Ipex Le-Ron Plastics Inc. Galaxy Plastics Ltd. | CSAB182.2 ASTM D3034 and F1336 | Double strap Wye only on existing mains |
| 2.8 Forces Mains | | | | | |
| | 2.8.1 | Pvc Pipe and Fittings | Ipex Northern Pipe Products Royal Flex-Loc | CSA B137.3 AWWA C900 DR25, 18 and 14 AWWA C905 DR51, 41, 32.5, 25, 21 and 18 | C900 Sizes 100 – 300 mm C905 350 – 1200 mm |
| | 2.8.2 | High Density Polyethylene (HDPE) Pipe and Fittings | KWH Pipe Global Poly Systems Inc. Performance Pipe | AWWA C906 | DR7.3 to DR32.5 |

| | | Item Description | Approved Product | Standard | Comments/Restrictions |
|--|-------|-------------------------|---------------------------------|----------------------------|--------------------------------------|
| | 2.8.3 | Valves | Clow Terminal City Muller | Gate Valve to AWWA C509 | Resilient Seat Sizes 100 – 350 mm |
| | 2.8.4 | Services | See 1.9 Water Services | | |

| | Item Description | Approved Product | Standard | Comments/Restrictions |
|---------------------------|------------------|----------------------|---|--|
| 3. Street Lighting | | | | |
| | 3.1 | Roadway Lighting | NXT Series | NXT – 36s or larger on roadways |
| | 3.2 | Poles | Nova Pole West Coast Engineering Or approved equal | CAN/CSA S6-2006 ANS CSA 22.2 No. 206 Hot dipped galvanized steel in accordance with SSPC-SP7 |
| | 3.3 | Conduit | Ipex Or equivalent | CSA C22.2 No.211.1 RPVC as per Canadian Electric Code |
| | 3.4 | Fittings | Ipex or equivalent | CSA C22.2 NO. 85 RPVC as per Canadian Electric Code |
| | 3.5 | Junction Boxes | Nova Pole | Conform to section 201 plastic unction boxes Large size only |
| | 3.6 | Service Panel | Valid Manufacturing | CSA type 3R rated Model# BSD6A24CQ Marine grade aluminum Pader coated grey Wired to MMCD E7.5 40/60 amp |
| | 3.7 | Service Base | Nova Pole West coast Engineering | Hot dipped galvanized steel in accordance with SSPC-SP7 |
| | 3.8 | Conductors | | CSA C22.2 NO.38 Single conductor 600V Stranded copper with RW90 polyethylene insulation Colour coded per Canadian Electric Code |
| | 3.9 | Conductor Connectors | | Rated 105C as per Canadian Electric Code Screw on type |
| | 3.10 | Fuse Holders | Tron | CSA 6225-01 UL IZLT2 5 amp fuse with 2 insulating boots |
| | 3.11 | Concrete Bases | | As per MMCD drawing CE1.3 Pre-Cast concrete Type C for 9m davit Type C1 for 8.1m davit on service base |

| | Item Description | Approved Product | Model Number | Supplier | Comments/Restrictions | |
|-------------------------|------------------|---------------------------|---|--------------------------------------|------------------------------|--|
| 4. Furnishings | | | | | | |
| 4.1 Benches | | | | | | |
| | 4.1.1 | Park and Trail Benches | Contemporary 6' Benchport/Surf Mt-Diamond | CN420D Green | Sudden Fun | Includes mounting plate MC104N set of 4 |
| | 4.1.2 | Woodlawn Cemetery Benches | Green Valley 6' Bench with black recycled plastic lumber Portable/Surface mount | CAN/CSA S6-2006 ANS CSA 22.2 No. 206 | Sudden Fun | Colour Cedar with Black Frame |
| 4.2 Garbage Cans | | | | | | |
| | 4.2.1 | 32 Gallon Receptacle | Flare top – Diamond | FR4000D | Sudden Fun | Colour Green – comes with 32 gallon liner # LR310N |
| | 4.2.2 | Flat Top Solid Bonnet | Outward opening | SB105N | Sudden Fun | |
| 4.3 Deep Garbage | | | | | | |
| | 4.3.1 | Max 30 | EQNX 24" x 128" | 05-05-0262 | Equinox Environment Products | |
| 4.4 Picnic Table | | | | | | |
| | 4.4.1 | Signature 6' Table | 2 3/8" Legs – Diamond | SG106D | Sudden Fun | |
| | 4.4.2 | Surface Mount Package | 2 3/8" Legs | SG135N | Sudden Fun | Set of 2 |

Approved Plantings for City of Fort St John

S=sensitive M=moderate T=tolerant

| Deciduous | | | | | |
|-----------------------|--------------------------------|------|------|-----|--------------------------|
| Common Name | Latin Name | Zone | Salt | Wet | Notes |
| Maple | Acer negundo 'Sensation' | 2 | | | Fall Colour |
| Tartarian Maple | Acer tartaricum spp. Ginnala | 3 | M | | small tree, F.C. |
| Silver Maple | Acer saccharinum | 3 | M | M | needs space |
| Dakota Pinnacle Birch | Betula papyrifera 'Dak. Pin.' | 3 | | | med. tree, F.C. |
| Paper Birch | Betula papyrifera 'Snowy' | 2 | M | | white bark |
| Northern Hackberry | Celtis occidentalis | 3 | S | | large tree |
| Hawthorn | Crataegus var. 'Snowbird' | 3 | S | | small tree |
| Foothills Green Ash | Fraxinus 'Foothills Gr. Ash | 3 | | | |
| Black Ash | Fraxinus Nigra | 2 | | | |
| Fall Gold Ash | Fraxinus Nigra 'Fall Gold' | 3 | | | |
| Green Ash | Fraxinus pennsylvanica | 3 | S | | aka Manchurian Ash |
| Prairie Spire Ash | Frax. Penns. 'Rugby' | 2 | S | | good ground clearance |
| Patmore Ash | Frax. Penns. 'Patmore' | 2 | | | street tree |
| Northern Treasure | Fraxinus X | 2 | | | very tall canopy |
| Northern Gem Ash | Frax. X 'Northern Gem' | 2 | | | tall canopy |
| Seabuckthorn | Hippophae rhamnoides | 3 | T | | grey colored leaves |
| Royalty Flow. Crab | Malus 'Royalty' | 2 | | | dark purple leaves |
| Spring Snow Fl. Crab | Malus 'Spring Snow' | 2 | | | |
| Thunderchild Fl. Crab | Malus 'Thunderchild' | 3 | M | | purplish/red leaves |
| Starlite Flow. Crab | Malus X 'Jeflite' | 2 | | | |
| Okanese Poplar | Populus 'Okanese' | 2 | M | T | tolerates drought |
| Prairie Sky Poplar | Populus 'Prairie Sky' | 2 | T | T | Interspecific Hybrid |
| Swedish Aspen | Populus tremula erecta | 2 | | | columnar |
| Trembling Aspen | Populus tremuloides | 1 | T | T | drought tolerant |
| Assiniboine Poplar | Populus X Assiniboine | 2 | M | M | |
| Tower Poplar | Populus X Canescens | 2 | T | M | colum., full sun, bigger |
| Early Gold Pear | Pyrus Ussuriensis 'Early Gold' | 2 | M | | |
| Bur Oak | Quercus macrocarpa | 3 | M | | |
| Laurel Leaf Willow | Salix pentandra | 3 | M | | needs space |
| European Mtn. Ash | Sorbus aucuparia | 2 | | S | small tree, berries |
| Japanese Tree Lilac | Syringa reticulata | 3 | T | | sunny location |

| Common Name | Latin Name | Zone | Salt | Wet | Notes |
|---------------------|-------------------------------|------|------|-----|------------------------|
| Americana Linden | Tilia Americana | 3 | S | | Bee tree |
| Little Leaf Linden | Tilia cordata 'Little Leaf' | 3 | M | | water if salt (b.tree) |
| Greenspire Linden | Tilia cordata 'Greenspire' | 3 | | | stem girdling (b.tree) |
| Dropmore Linden | Tilia X flavescens 'Dropmore' | 3 | | | Interspecific Hybrid |
| Evergreen | | | | | |
| Common Name | Latin Name | Zone | Salt | Wet | Notes |
| Balsam Fir | Abies Balsamea | 3 | | | |
| Eastern Red Cedar | Juniperus virginiana | 3 | M | | |
| Tamarack | Larix laricina | 2 | T | T | deciduous evergreen |
| Siberian larch | Larix siberica | 2 | M | | |
| White Spruce | Picea gaica | 2 | S | | |
| Colorado Blue Spr | Picea pungens | 2 | S | | |
| Norway Spruce | Picea p. 'Norway' | 2 | S | T | |
| Lodge pole Pine | Pinus 'Lodgepole' | 1 | | | |
| Red Pine | Pinus 'Red' | 1 | S | | |
| Scots Pine | Pinus 'Scots' | 2 | S | | |
| Eastern White Cedar | Thuja occidentalis | 3 | S | | |

Grass Hydroseed Mix

| | |
|---|---|
| <p>Parks and Greenspaces <u>Borealis Lawn Mix</u> 60% Creeping Red Fescue 20% Kentucky Bluegrass 20% Perennial Rye Grass</p> | <p>Very hardy in northern region Dark color blue-green Good for longer dry spells, good for high foot traffic</p> |
| <p>Boulevards For boulevards near salt roads, the grass blend shall include alkaligrass. Some of the other grasses may not survive right next to the road where there is high pH soil but will support erosion control, and help the alkaligrass to establish. 30% Alkaligrass 30% Creeping Red Fescue 20% Kentucky Bluegrass 20% Perennial Rye grass</p> | <p>For high pH soil</p> |
| <p>Roadside Allowances Roadside allowances (E.g. Alaska highway) and/or MOTI ditches as of 2020 uses the following. The City can utilize this blend in specific areas. (E.g. Bypass ditches) North East General Mix 25% Creeping Red Fescue 30% Perennial Ryegrass 30% Tall Fescue 15%</p> | |