Revision Log

2015 CLAUSE	APPROVED CHANGE IN 2016 STANDARDS
1. The intent of the Landscaping Design and Construction Standards is to ensure that landscape developments on City lands provide well-constructed, functional, aesthetically pleasing, and sustainable public open space. Creativity and innovation is encouraged.	**1.** The intent of the Landscaping Design and Construction Standards is to ensure that landscape developments on City lands provide well-constructed, functional, aesthetically pleasing, and sustainable public open space. Creativity and innovation is encouraged. The landscape must take into account the maintenance standards the City of Edmonton adheres to.
	NEW BULLETS UNDER CLAUSE 3.2.1 City of Edmonton Low Impact Development, Construction, Inspection & Maintenance Guide -Trees and Shrubs for the Prairies (by Landscape Alberta, 780-489-1991, admin@landscape-alberta.com): latest edition, takes precedence if sizes/spreads are in conflict with other documents; -City of Edmonton, Winter Design Guidelines: Transforming Edmonton into a Great Winter City; - City of Edmonton, Dogs in Open Spaces Strategy: A 10-Year Strategy to Guide The Planning, Design and Management of Off Leash Areas in Edmonton.
3.2.1 The following documents are a source of additional information… -Standard Sportsfield Sizes; (Community Services internal document – contact a Landscape Architect/Parks);	Removal of reference.
	Add the following reference to section 3.2.1 Canadian Standards for Nursery Stock, Canadian Nursery Landscape Association (C.N.L.A);
	NEW CLAUSE **3.3.27** Low Impact Development (LID): is a land development and storm water management approach that works with nature to manage storm water as close to the source as possible. LID focuses on maintaining and restoring the natural hydrological processes of a site.
4.2.1The horticultural and bioengineering components of the design take into consideration factors such as micro-climate, soil conditions, hydrology, slope stabilization, erosion control, successive plant growth, wind buffering, visual screening and control of pedestrian circulation.	4.2.1 The horticultural and ecological components of the design take into consideration factors such as micro-climate, soil conditions, hydrology, slope stabilization, erosion control, successive plant growth, wind buffering, visual screening and control of pedestrian circulation. - NEW: Consideration shall be taken for visual interest, wind blocking and shadow casting in winter. - NEW: The proposals address four season design and use, ensuring that any gathering spaces work well in both winter and summer seasons.

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4.5.1 Inspections for Landscape Construction Completion Certificates (CCC) will be undertaken by Parks from June 1st - October 15th, based on snow coverage and weather dependent. - Projects out of Parkland Developer Services Unit's scope will include a Parks Operations inspector.	**4.5.1** Parkland Developer Services Unit's inspections may include Parks Operations, Urban Forestry, Ecology, or other Edmonton representatives as required to complete the inspection.
	NEW BULLET UNDER CLAUSE 4.5.2 Minor touch up of fencing stain is a seasonal deficiency that must be completed prior to June 30th of the following inspection season, at the inspector's discretion
	NEW BULLET UNDER CLAUSE 4.5.7 -City assets that only require a CCC will require the following documents to be submitted at time of CCC application: latest approved landscape drawings (PDF and AutoCAD) and a Tangible Capital Asset form.
4.5.10 The Urban Forester will inspect all trees including containers and plugs. All plant material must be visible.	**4.5.9** The Urban Forester will inspect all trees on site. All plant material must be visible.
4.5.11 The Landscape Architectural Technologist/Parks will supply an approved CCC or a rejected CCC with a deficiency report, within two weeks of the inspection to the Landscape Architect.	**4.5.11** The Landscape Architectural Technologist/Parks or Project Manager will supply a CCC deficiency report within two weeks of the inspection to the Landscape Architect. -Within two weeks of receiving the deficiency report, identified site deficiencies must be corrected. -If the identified deficiencies have not been corrected within the two week time frame the site will be rejected. **RELATED NEW CLAUSE** **3.3.5** Landscape Architectural Technologist/Parks: the person within City Planning designated by the General Manager, Sustainable Development Department. Responsible for coordinating the inspections and issuance of Landscape Construction Completion Certificates and Final Acceptance Certificates.
4.5.13 Bank stabilization inspection of plant material requirements must be inspected by Parks to ensure plant material is viable and as per the drawing.	**4.5.13** Bank stabilization inspection of plant material requirements must be inspected by Parks to ensure plant material is viable and as per the drawing. Bank Stabilization methods should consider bioengineering and landscape naturalization methods suitable for site context and conditions.
	NEW CLAUSE **4.7.2** Municipal Reserve that only requires a Construction Completion Certificate (CCC) shall require an AutoCAD version of the Approved Drawing.

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4.8.1 The Developer shall be responsible for any defect or deficiency in the completed work for a minimum warranty period as outlined below and shall remedy any deficiencies at their own expense.	**4.8.1** The Developer shall be responsible for any defect or deficiency in the completed work for a minimum warranty period as outlined in the signed Servicing Agreement, or as identified below. Deficiencies shall be corrected at the Developer's expense.
4.8.2 All landscape improvements shall be maintained for a minimum warranty period of twelve months after issuance of CCC. The warranty period will be extended for an additional twelve months (at time of FAC inspection) when the following conditions apply: -For sites with more than 40 trees, 10% or more of the trees have been and are required to be replaced within the current year. -For sites with less than 40 trees, 25% or more of the trees have been and are required to be replaced within the current year. -At which time a new FAC application will be required.	**4.8.2** All landscape improvements shall be maintained for a minimum warranty period of twelve months after issuance of CCC. The warranty period will be extended for an additional twelve months (at time of FAC inspection) when the following conditions apply: -For sites with more than 40 trees, where 10% or more of the tree rootballs have been or are required to be disturbed (lift, lower, straighten, etc) or where 10% or more are required to be replaced within the current year. -For sites with 40 trees or less, where 25% or more of the tree rootballs have been or are required to be disturbed (lift, lower, straighten, etc) or where 25% or more are required to be replaced within the current year. -For sites with 25 shrubs or less, where 50% or more of the total shrubs have not established. -For sites with more than 25 shrubs, where 25% or more of the total shrubs have not established. -For sites where 25% or more of the turf has not established. -At which time a new FAC application will be required.
	NEW CLAUSE **4.8.3** If trees that are planted are selected from the trial list then the following conditions apply at FAC: - Trees must be identified as such on the submitted plans; - In a non-roadway setting no replacements would be required on trees planted above and beyond the required numbers if the remaining landscaping allows for the vacancies as per the discretion of the City inspectors; - 35% mortality during the maintenance period will be acceptable on the trial species; - Trial species are acceptable with up to 30% dieback; - For the non-trial species the 10% mortality criteria will apply; - The specified trial species would need to be replaced at least once during the maintenance period before initiating a species change; - All boulevard trees need to be replaced.
4.8.3 All deciduous trees specified at a 75 mm caliper, or greater, to a maximum of 90 mm caliper, require a minimum twenty four month warranty period. If planted in a site which has enhanced site conditions such as continuous root trench, a twelve month warranty period will be required.	**4.8.4** All deciduous trees specified at 80 mm* caliper, or greater, to a maximum of 90 mm caliper, require a minimum twenty four month warranty period. If planted in a site which has enhanced site conditions such as continuous root trench, a twelve month warranty period will be required. -* Trees planted at 80mm caliper or above, without enhanced site conditions (tree trenching, increased soil volumes, etc.) will require a twenty four month warranty period. - If at the time of inspection trees are determined to be over sized (more than 20mm caliper) above specification as identified on the

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	approved drawings, the City has the right to reject the trees or the minimum warranty period will be extended as outlined in clause 4.8.3.
4.8.4 All landscape amenities shall be maintained for a minimum warranty period of twenty four months (i.e. benches, garbage/recycling receptacles, etc.).	**4.8.5** All amenities shall be maintained for a minimum warranty period of twelve (12) months. (i.e. benches, garbage/recycling receptacles, etc.) The garage receptacles must be emptied to the City of Edmonton standards until FAC.
	NEW CLAUSE **4.10.3** Landscaping projects with an FAC anniversary date that falls after August 1st, are eligible for early inspection, on or after August 1st. The Consultant and Contractor must agree to maintain the site (should it be approved) for the remainder of the warranty period.
4.10.4 The Landscape Architect shall submit a standard letter, three original copies of the Sustainable Development Department FAC form including all 11”x17” reductions of the As-Built or Red Line landscape drawings, Maintenance Log and Total Capital Assets Form, forwarding them to Development Coordination, Sustainable Development.	**4.10.4** The Landscape Architect shall submit a standard letter, three original copies of the Sustainable Development Department FAC form including all 11”x17” reductions of the latest approved landscape drawings, As-built AutoCAD drawing, As-built PDF drawing, Maintenance Log and Total Capital Assets Form, forwarding them to Development Coordination, Sustainable Development. The Landscape Architect shall submit a standard letter, three original copies of the Sustainable Development Department FAC form including all 11”x17” reductions of the As-Built or Red Line landscape drawings, Maintenance Log and Total Capital Assets Form, forwarding them to Development Coordination, Sustainable Development.
	NEW CLAUSE **4.10.5** The contractor shall provide all maintenance records for the site between CCC and FAC. This shall include standard maintenance tasks including dates when that maintenance occurred. Records shall also include pesticide application logs. Replacement tree and shrub planting must be indicated on drawings. These logs must be uploaded to Eplan as part of the supporting documents required for inspection to occur. This record must be provided with the inspection request.
4.10.12 If the trees are in the third growing season, the tree stakes and wires shall be removed.	**4.10.13** If the trees are in the third growing season, one tree stake and all guy wires shall be removed.
	NEW CLAUSE **4.10.14** Erosion and Sediment control measures may be removed at FAC on public Parkland, if the landscape and adjacent properties are fully established, thus eliminating the risk of erosion. Removal of the erosion and sediment control measures is at the discretion of the Landscape Architectural Technologist/Parks.

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	NEW CLAUSE **4.12** Pesticide Notification Requirements **4.12.1** A Contractor wishing to apply a pesticide on City property or property that is in the possession of the developer and has not yet received FAC, must first submit a completed Contractor Pesticide Use Notification Form to the appropriate Service Area. This must be sent at least 48 hours (not including weekends and holidays) prior, and be acknowledged by an e-mail confirmation before conducting the treatment. If no response is received within two business days, the contractor may proceed. Please submit only one site per form. The contractor Pesticide Use Notification form may be found on the City of Edmonton website. **4.12.2** Developers shall provide signs indicating that areas have received herbicide treatments wherever there is a potential for public exposure. Reference Appendix G, "Pesticide Notification Signage Template". **4.12.3** A pesticide as defined in the Environmental Protection and Enhancement Act includes "a substance that is intended for use in preventing, destroying, repelling or mitigating any insect, nematode, rodent, predatory animal, parasite, bacteria, fungus, weed or other form of plant or animal life or virus."
	NEW CLAUSE **4.13** Environmental Considerations **4.13.1** Environmental considerations are an important part of all activities and operations within the City of Edmonton. While performing services and operations working directly for the City of Edmonton, contractors must understand their environmental responsibilities. Contractors include: -Consultants hired by the City of Edmonton, -Any person who is hired by the City to provide Construction, Operation, Maintenance and Service activities; -Any person who is hired by the City and who operates hired equipment. **4.13.2** Prior to starting work, contractors must review and understand the contents of the Contractor's Environmental Responsibilities Package and complete and submit the Contractor's Environmental Responsibilities Acknowledgement Form. The Contractor Environmental Responsibility package along with the form as well as general information about contractor environmental responsibilities may be found on the City of Edmonton website.
5.1.1 All plans shall contain a scale including a bar scale, a north arrow and a legend. Where possible, orient north to the top of the drawing.	**5.1.1** All plans shall contain a scale including a bar scale, a north arrow, a key plan and a legend. Where possible, orient north to the top of the drawing.

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5.2.4 The layout plan shall include all grading and drainage information as follows: -Proposed contours and/or spot elevations; -River valley and ravine areas identifying flood line information; -Surface and below grade storm discharge locations into the North Saskatchewan River Valley and Ravine System; and, -Existing grade information, as required, for quantity take-offs or design evaluation.	**5.2.4** The layout plan shall include all grading and drainage information as follows: -Proposed contours at a maximum of 1.0 m contour intervals and/or spot elevations; -River valley and ravine areas identifying flood line information; -Surface and below grade storm discharge locations into the North Saskatchewan River Valley and Ravine System; and, -Existing grade information, as required, for quantity take-offs or design evaluation.
5.2.5 The Layout Plan shall include existing vegetation located on proposed City-owned lands, including those within the North Saskatchewan River Valley, Ravine System and Natural Areas, and are to include the following: - Trees and shrubs to be protected as per the City of Edmonton Corporate Tree Management Policy.	**NEW BULLET UNDER CLAUSE 5.2.5** - Trees and shrubs to be protected as per the City of Edmonton Corporate Tree Management Policy, C456A.
	5.3.2 If possible storm water management drawing should be drawn at a scale that allows trees and shrubs to be shown on the same sheet. - The SWMF drawings will include an overall landscape plan identifying the planting calculations, surface treatments with areas, mow limits, and identify enlargements with match lines. - Each enlargement sheet must include a key plan and a planting list (identifying the individual sheet planting only). - Ensure the drawings are laid out and ordered for ease of inspection.
	NEW BULLET UNDER CLAUSE 5.5.3 -Where existing trees are identified and used to meet quantity requirements on planting plans, they must be included within the plant list and be subject to CCC and FAC inspection.
5.5.7 Plant material graphic symbols shall represent mature spread of shrubs as per Plant material graphic symbols shall represent mature spread of shrubs as per Alberta Yards and Gardens (see Section 3.2.1 Reference Documents). All shrub and coniferous tree material symbols shall be contained within a planting bed, with a minimum 500 mm width mulched area between the edge of the mature shrub/coniferous tree and the edge of the shrub bed. Shrub symbols should be shown at mature size with no overlap.	**NEW CLAUSE** **5.5.7** Plant material graphic symbols shall represent mature spread of shrubs as per Trees and Shrubs for the Prairies (see Section 3.2.1 Reference Documents). **5.5.8** Tree symbols are to be drawn at mature spread, as per the recommended tree spacing in 7.9 Approved Tree Species and Spacing Requirements. **5.5.9** Shrub symbols should be shown at mature size with no overlap. Tree and ground covers symbols may be overlapped at the discretion of the City. **5.5.10** All shrub and coniferous tree material symbols shall be contained within a planting bed, with a minimum 500 mm width mulched area between the edge of the mature shrub/coniferous tree and the edge of the shrub bed.

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7.1.2 Grouping trees within mulched beds is encouraged, where practical, to improve growth and survival. Reduced tree spacing in group plantings may be considered by Forestry. Individual tree planting remains acceptable.	**7.1.2** Grouping trees within mulched beds is encouraged where practical to improve growth and survival. Reduced tree spacing in group plantings may be considered by Forestry. Individual tree planting remains acceptable. No individual tree shall be planted within 2.5m of a mulched bed.
7.2.1 Naturalization is encouraged as a means to provide more sustainable landscapes, to enhance biodiversity, and to provide educational opportunities.	**7.2.1** The City of Edmonton is moving towards a more naturalized landscape aesthetic in the following areas: major roadways, utility corridors, non-programmable or low use park spaces, shrub beds in appropriate areas (e.g. nature parks or parks near natural areas/river valley), low impact development (e.g. bioswales and rain gardens), and storm water management facilities. Naturalization is supported by the City of Edmonton as a means to provide more sustainable landscapes, to enhance biodiversity, and to provide educational opportunities.
	NEW CLAUSE **7.1.4 Soil Volume** **7.1.4.1** Enhanced soil volumes are required to increase critical rooting space. Soil volumes should be designed no deeper than 1 meter with increased area to achieve the minimum soil volume requirement. Based on tree size to soil volume relationships (Urban,1992) the list below is the recommendations for the City of Edmonton. - Large canopy trees are defined as trees that under normal conditions can support canopies of 74m2 or spread of over 5 meters and require a minimum soil volume of 17m3. - Small canopy trees are defined as trees that under normal conditions have a spread of 5 meters and require a minim soil volume of 11m3 and under ideal conditions require 17m3 to reach its full potential. - Should the design of the area not allow for the minimum required soil volume, please contact the Forestry for recommendations.
7.2.2 Naturalization may be considered where there are no conflicts with other uses, where aesthetically appropriate, maintenance concerns are addressed, and where there is public acceptance.	**7.2.2** Naturalization is encouraged when it provides ecosystem function (e.g. water filtration and retention, slope stability, wildlife habitat or corridors), where there are no conflicts with other uses, where aesthetically appropriate and maintenance concerns are addressed.
7.3.1 Collector and arterial roadways must incorporate a utility-free planting corridor within boulevards and medians to accommodate planting requirements with appropriate setbacks.	**7.3.1** Collector and arterial roadways must incorporate a utility-free planting corridor within boulevards and medians to accommodate planting requirements with appropriate setbacks. If trees are on the plan and cannot be planted due to utility or access conflicts, these trees should be planted where possible within the same stage of development.
7.5 Tree Setbacks from Walkways and Roads	**7.5** Tree Setbacks from Walkways and Roads - New table

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	NEW CLAUSE **7.5.2** There shall be no mulched beds within 2.5m of curb on boulevards along arterial and collector roadways.
7.6.9 Planting bed locations should accommodate the use of large turf maintenance equipment. Provide a minimum 2.5 m clearance between the edge of a bed and obstructions such as fencing, furniture, buildings, etc. Where possible, shrub beds should be designed with tapered or flowing edges (no 90 degree corners) to allow for ease of mowing, and eliminate the need for hand trimming.	**7.6.9** Planting bed locations should accommodate the use of large turf maintenance equipment. Provide a minimum 2.5 m clearance between the edge of a bed and obstructions such as fencing, furniture, buildings, individual trees etc. Where possible, shrub beds should be designed with tapered or flowing edges (no 90 degree corners) to allow for ease of mowing, and eliminate the need for hand trimming.
	NEW CLAUSES **7.6.10** Where there is turf between planting beds and adjacent fences the minimum distance shall be 2.5 m.
7.6.6 Setbacks for coniferous trees are to be no less than the distances indicated above, but will be reviewed and approved on a case by case basis in regard to concerns over potential mature size.	**7.6.6** Setbacks for coniferous trees are to be no less than the distances indicated above, but will be reviewed and approved on a case by case basis in regard to concerns over potential mature size. Coniferous trees must maintain clearance from fence lines at maturity.
7.6.8 Shrub setbacks from shrub bed edges shall reflect mature diameter with the entire shrub contained in the bed. Mature spread cannot encroach on the sidewalk or onto fences	**7.6.8** Shrub setbacks from shrub bed edges shall reflect mature diameter with the entire shrub contained in the bed. Mature spread cannot encroach on the sidewalk or onto fences. There must be 500 mm from the edge of the bed or fence or sidewalk from the mature spread of the shrub.
7.6.10 On drawings, shrub symbols should be shown at mature size with no overlap. The intent is to achieve a balance between aesthetic impact, shrub health and maintenance concerns.	**7.6.11** On drawings, shrub symbols should be shown at mature size with no overlap. However ground covers symbols may be overlapped at the discretion of the City. The intent is to achieve a balance between aesthetic impact, shrub health and maintenance concerns.
	NEW CLAUSE **7.6.12** There shall be a minimum 3.0m planting setback of shrubs from play space envelope (playground equipment and splash parks). The design preference is naturalized planting. **7.6.13** There shall be no shrub beds within 30m of a school playground site. The design preference is naturalized planting.
7.7.1 Unless noted otherwise or approved by the Director/ Parks, all planting shall be a minimum of 50 mm caliper for deciduous trees and 2.5 m height for Coniferous trees. A tree mix of deciduous and coniferous is generally encouraged where practical.	**7.7.1** Unless noted otherwise or approved by the Director/ Parks, all planting shall be a minimum of 50 mm caliper for deciduous trees and 2.0 m height for Coniferous trees. A tree mix of deciduous and coniferous is generally encouraged where practical.

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	NEW CLAUSE **7.7.2** If proposed trees are less than the minimum caliper, additional plant material may be required, at the discretion of the City.
7.7.2 75 mm caliper and larger trees will be accepted in boulevards if tree root trenching is proposed, and if there are no conflicts with utilities. A one year warranty period from CCC to FAC will apply in this case. Milestone inspections for tree root trenching will be required during trenching excavation. The consultant is to request an inspection with Forestry five business days prior to tree root trenching. If tree root trenching in boulevards is not proposed for trees 75 mm caliper and larger, then a two year warranty period from CCC to FAC will apply. The City reserves the right to evaluate this standard on a case-by-case basis.	**7.7.3** 80 mm caliper and larger trees will be accepted in boulevards if tree root trenching is proposed, and if there are no conflicts with utilities. A one year warranty period from CCC to FAC will apply in this case. Milestone inspections for tree root trenching will be required during trenching excavation. The consultant is to request an inspection with Forestry five business days prior to tree root trenching. If tree root trenching in boulevards is not proposed for trees 80 mm caliper and larger, then a two year warranty period from CCC to FAC will apply. The City reserves the right to evaluate this standard on a case-by-case basis.
	NEW CLAUSE **7.8.5** Where naturalization planting is use, plant material may be substituted as per the following: (NEW TABLE) - A maximum of 10% of the required 60mm caliper trees on a site may be substituted for smaller material. - Emergent material does not qualify into the shrub or tree equivalency. - Shrub size requirement can be substituted at a rate of 5 shrub plugs for 1 full size shrub - Example: One 60 mm caliper full size tree can be substituted with either two, 40 mm caliper potted trees, or five 20 mm caliper potted trees or 25, 100 mm pot (tree or shrubs, whips and plugs)
7.9 Approved Tree Species and Spacing Requirements **7.9.1** Forestry and Parks have developed a list of acceptable tree species with recommended spacing, as per the list below. Spacing may be changed at the discretion of Forestry, or by acceptance of drawings via the tender process. Agreed upon minor adjustments may be made on site. In all situations, minimum utility off-set distances must be adhered to, unless otherwise approved. **7.9.2** Trees from the list below must be suitable for the location and microclimate, and will be reviewed for by Forestry during the drawing review process. It is recommended that discussions are held with Forestry in advance of drawing submission for plantings	**7.9** Approved Tree Species, Spread and Spacing Requirements **7.9.1** Forestry and Parks have developed a list of acceptable tree species with recommended spacing and spread, Appendix H Approved Tree Species, Spread and Spacing. Spacing may be changed at the discretion of Forestry, or by acceptance of drawings via the tender process. Agreed upon minor adjustments may be made on site. In all situations, minimum utility off-set distances must be adhered to, unless otherwise approved. **7.9.2** Trees identified in Appendix H “Tree Diversity Guidelines and Approved Species Spread and Spacing”, must be suitable for the location and microclimate, and will be reviewed for by Forestry during the drawing review process. It is recommended that discussions are held with Forestry in advance of drawing submission for plantings that might be different from normal applications and/or to determine if current urban conditions may preclude certain tree species on the list. The Landscape Architect may propose alternative tree species not listed below.

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that might be different from normal applications and/or to determine if current urban conditions may preclude certain tree species on the list. The Landscape Architect may propose alternative tree species not listed below.	
7.9.3 Coniferous tree spacing may be reduced when planted in groups and placed in mulched beds. Tree spacing and species selections must address safety and security concerns.	**7.9.3** When grouping Coniferous trees, place trees in mulched beds with appropriate spacing as per the above recommended tree spacing. **NEW CLAUSE** **7.9.4** Tree spacing and species selections should consider site specific CPTED principles and sightline concerns.
7.12 Hoarding **7.12.1** Where sod will not be placed until completion of all construction activities, hoarding of boulevard trees is required. Reference City of Edmonton details LA100-Large Tree Hoarding and LA101-Small Tree Hoarding (maximum 75 mm caliper). The Landscape CCC may be granted without sod being installed. **7.12.2** All hoarding is to be removed by the Developer, after issuance of the FAC by Parks, unless otherwise directed.	**7.12** Tree Protection Zone **7.12.1** Where sod will not be placed until completion of all construction activities, protection of boulevard trees is required. Reference City of Edmonton details LA100 - Large Tree "Tree Protection Zone" and LA101 - Small Tree "Tree Protection Zone" (maximum 80 mm caliper). The Landscape CCC may be granted without sod being installed, on local road boulevards. **7 .12.2**All tree protection zones are to be removed by the Developer, after issuance of the FAC by Parks, unless otherwise directed.
	NEW CLAUSE **7.13.2** Aquatic invasive species shall be controlled as per the Alberta Fisheries Act.
8.2.4 The concrete pad should extend 150 mm beyond the outside edges of the site furniture to accommodate mowing.	**8.2.4** All amenities must be place on a concrete pad or secured with a concrete footing. - The concrete pad should extend 150 mm beyond the outside edges of the site furniture to accommodate mowing.
8.2.3 A minimum required setback distance for site furniture, measured from the outer face of the amenity, are as follows: - Benches - 1.0m minimum from back of walkway. - Waste Receptacles - 250mm minimum from walkway and minimum 4.0m from benches. - Picnic Tables - 1.0m minimum from back of walkway.	**8.2.3** Minimum required setback distances for site furniture, measured from the outer face of the amenity, are as follows: - Benches - 1.0 m minimum from back of walkway. - Waste Receptacles – 600 mm minimum from walkway and minimum 3.0 m from benches. - Picnic Tables - 1.0 m minimum from back of walkway.

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8.4.1 School, park sites and other park site are to be separated from private development by permanent fencing. Fences must be constructed 150 mm inside private property. Fencing is to be a minimum 1.2 m height and suitable for restraining pets.	**8.4.1** School, park sites and other park site are to be separated from private development by permanent fencing. Fences including the concrete pile must be constructed wholly within private property. Fencing is to be a minimum 1.2 m height and suitable for restraining pets.
BULLET UNDER CLAUSE 9.1.4 -Locate playgrounds centrally between Community League sites and schools are desirable.	**NEW BULLET UNDER 9.1.4** -Locate playgrounds centrally between Community League sites and schools are desirable. Where ever possible, playgrounds should also have visual connection to any publically accessible heated areas/structures but not be in their shadow in winter.
9.3.1 All new or upgraded playgrounds must meet the current CSA Z614 - Children's Playspaces and Equipment Standards. The Landscape Architect must contact a Landscape Architect/Parks or Project Manager/Parks prior to proceeding with design work.	**9.3.1** All new or upgraded playgrounds must meet the current CSA Z614 Children's Playspaces and Equipment, and The City of Edmonton Playground Equipment Standard. The Landscape Architect must consult with Parks Operations, Playspaces prior to proceeding with design work.
9.3.2 Designs for playgrounds and play areas that are innovative and provide a diversity of play and learning experiences are encouraged.	**NEW BULLET UNDER 9.3.2** -All manufacturer documentation and reference materials must be submitted for drawing review. This includes equipment for play grounds, splash pads, skate parks and fitness pods. Refer to the City of Edmonton Playground Equipment Standard.
10.2.2 Shrubs and trees may be planted on traffic calming islands with approval by Transportation Services and the Director/Parks. Shrubs must be low growing, with a maximum 500 mm height.	**10.2.2** Shrubs and trees may be planted on traffic calming islands with approval by Transportation Services and the Director/Parks. Where possible, use a minimum of one tree per island to indicate plant material in bed. Shrubs must be low growing, with a maximum 750 mm height.
10.2.3 Shrubs and trees may be planted along the fence at neighbourhood entrances with approval by Transportation Services and the Director/Parks.	**10.2.3** Shrubs and trees may be planted along the fence at neighbourhood entrances with approval by Transportation Services and the Director/Parks. The mature shrubs spread must be 500 mm back from the fence and not be a suckering species.
10.4.1 The design intention of arterial planting is to provide shade and block low sun, with the exception of commercial and school areas. The standard does not dictate that there must be rows of trees and shrubs, only an equivalent amount of plant material. Designs unique to each arterial roadway are encouraged.	**10.4.1** The design intention of arterial planting is to provide shade and block low sun, with the exception of commercial and school areas. The standard does not dictate that there must be rows of trees and shrubs, only an equivalent amount of plant material. Designs unique to each arterial roadway are encouraged. The City of Edmonton is moving towards a more naturalized aesthetic along many roadways. Naturalization designs for arterial roadways should be used in appropriate locations, using the appropriate grass, shrub and tree species. Reference Section **7.2** Naturalization.

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10.4.11 On existing arterial roadways, the arterial roadway standards shall be applied when the arterial is upgraded to its ultimate cross section. Allowance shall be made for conflicts with existing utilities.	**10.4.10** On existing arterial roadways, the arterial roadway standards shall only be applied when the arterial boulevard includes a sidewalk and is graded to its final grade. Trees are to be planted at their ultimate location and grade. Allowance shall be made for conflicts with existing utilities.
10.4.13 Naturalization designs for arterial R.O.W. may be considered in appropriate locations, reference Section 7.2, Naturalization.	**10.4.12** Naturalization designs for arterial R.O.W. should be used in appropriate locations. Reference Section **7.2** Naturalization.
10.4.4 There will be a row of shrubs at 1.2 m spacing in a shrub bed behind the walkway on each side of the arterial.	**10.4.4** There will be a row of shrubs at 1.2 m spacing in a shrub bed behind the walkway on each side of the arterial. Perennials, ground covers, and tree plantings may be substituted at an equivalent rate, or plant quantities may be adjusted to meet the mature spread requirements of the proposed plant material as determined by the Director of Parks.
10.5.1 Arterial roads in industrial areas require landscaping as per arterial requirements above. The shrub requirement will be evaluated on a case-by-case basis by the Director/Parks dependent on the existence of frontage landscaping by adjacent owners. It is anticipated that most industrial area arterials will require shrub planting.	**10.5.1** Arterial roads in industrial areas require landscaping as per arterial requirements above. The shrub requirement will be evaluated on a case-by-case basis by the Director/Parks dependent on the existence of frontage landscaping by adjacent owners. It is anticipated that most industrial area arterials will require shrub planting. Naturalization is encouraged in industrial areas. Reference Section **7.2** Naturalization.
10.5.2 Non-arterial roads of 20 m or greater R.O.W. width in industrial areas are considered to be collectors, and require a row of trees on each side – spaced as per Forestry recommendations	**10.5.2** Arterial and collector roads in industrial areas require a row of trees on each side, spaced as per Forestry recommendations. **10.5.3** Local industrial roads require five trees per side, extending back from an intersection with a collector or an arterial. Adjust utilities as required.
10.8.1 All road islands, medians and entry feature designs must be low maintenance. Where appropriate, designs shall include trees, shrubs, groundcovers, mulch and sod to the satisfaction of the Director/Parks.	**10.8.1** All road islands, medians and entry feature designs are encouraged to be low maintenance. Where appropriate, designs shall include trees, shrubs, groundcovers, mulch, sod and boulders to the satisfaction of the Director/Parks. Shrubs must be low growing with a maximum mature height of 750 mm. A 500mm concrete verge is required on either side of the bed.
10.4.7 A minimum 1.25 m buffer strip is required on either side of the median and mature plant material shall not extend into the buffer strip (to accommodate snow storage and spring sediment removal). A hard surface apron may be substituted for the buffer at a lesser width, subject to approval by Transportation Services. If turf is specified, a minimum 1.5 m buffer strip is required.	**10.8.3** A minimum 1.25 m buffer strip is required on either side of the median and mature plant material shall not extend into the buffer strip (to accommodate snow storage and spring sediment removal). If turf is specified, a minimum 1.5 m buffer strip is required, the concrete verge may be included in this measurement.

2015 CLAUSE	APPROVED CHANGE IN 2016 STANDARDS
10.8.12 The required cross slope shall not be less than 2% from center of island to curb.	**10.8.4** The required cross slope shall not be less than 5% from center of island to curb.
13.1.1 Constructed wetlands, wet ponds and areas surrounding new storm water management facilities must be graded, topsoiled, seeded or sodded, and landscaped by the Developer to the satisfaction of the Director/Parks.	**NEW CLAUSES** **13.1.1** The City of Edmonton is moving towards a more naturalized landscape aesthetic in certain areas. Constructed storm water wetlands are human-made systems, designed, constructed and operated to emulate natural wetlands or many of their biological processes. Constructed wetlands should follow Drainage Design and Construction Standards. **13.1.2** Storm water management lakes (wet ponds) must be naturalized within the 1:5 year flood line, and naturalization is encouraged above the 1:5 year flood line when appropriate according to design and ecological function. **13.1.7** Shrubs shall be massed within planting beds above the 1:5 year flood level to create major focal areas in the slopes of the pond. It is recommended that trees are positioned within mulched planting beds. Flood tolerant plant material may be located below the 1:5 flood level. **13.1.8** As per Drainage Design and Construction standards for constructed wetlands natural vegetation should be established between the normal water line and high water line. A 2.5m mowed buffer must be kept along the residential fence line. **13.1.9** For storm water management lakes (wet ponds), naturalization as a landscape management technique should be used within the 1:5 year flood line, as well as within shrub beds above the 1:5 year flood line. **13.1.10** Mulch used in shrub and tree beds around storm water management facilities should be designed and managed in a way to allow for minimal disturbance during flood events.

2015 CLAUSE	APPROVED CHANGE IN 2016 STANDARDS
13.2 Constructed Wetlands, Storm Water Management Facilities	**NEW CLAUSE** **13.2** Low Impact Development Facilities **13.2.1** Vegetation selections for LID facilities should consider two basic soil conditions: a well-drained soil that receives periodic inundation, and a slowly drained soil that is moist to wet for most of the growing seasons. **13.2.2** Select plant varieties that will thrive on the site conditions and that grow well together. Species selection should consider: -Tolerance of seasonal salt loadings depending on facility location; -Pollutant uptake capacity; -Maintenance needs, including mowing and pruning; -Reduction of water and fertilizer needs after establishment; -Resistance to pests. **13.2.3** See the latest edition of the City of Edmonton Low Impact Development Best Management Practices Design Guide for recommended plant species for LID facilities in Edmonton. **13.2.4** See the latest edition of the City of Edmonton Low Impact Development Construction, Inspection, and Maintenance Guide for guidelines on construction, inspection, CCC, FAC, and maintenance of LID facilities.
13.1.7 No planting beds containing wood or bark mulch shall be allowed below the 1:5 flood level. Biodegradable erosion blankets shall be used, or approved alternates at the discretion of the Director/Parks.	**13.1.11** No planting beds containing wood or bark mulch shall be allowed below the 1:5 flood level.
13.1.13 All naturalized shrub beds should use a biodegradable erosion blanket, or approved alternative where applicable.	**CLAUSE REMOVED**
13.1.16 The site must be designed to permit access of maintenance vehicles including, but not limited to, water trucks, pruning trucks and man lifts.	**13.1.19** The site must be designed to permit access of maintenance vehicles from a public roadway including, but not limited to, water trucks, pruning trucks and man lifts. Reference Roadways Construction Detail 5160 Shared Use Path.
	UPDATES TO SPECIFICATIONS **02920 Seed and Sod** - Addition of 2.1.3. Native and Naturalization Seed Mixes, addition of new clause 2.2.1 **02930 Trees, Shrubs and Ground Covers** - update clause 2.1.6, update clause 2.3.1, update to clause: 3.5.1, new clause 3.5.2, new clause 3.5.3, update to clause 3.6.5, update to clause 3.9.11, update to clause 3.10.1, update to clause 3.14.7 **02931 Naturalization** - update to clause 1.5.4, new clause 1.5.5

2015 CLAUSE	APPROVED CHANGE IN 2016 STANDARDS
	UPDATES TO DETAILS **LA 102, 103, 104, 105, 107, 108, 108A, 109, 110, 111** - Mulch now references Specification 02914 Mulches) **Detail LA 102, 103, 107** - Root ball min. size as per “CNLA Standards for Nursery Stock” **LA100**- Large Tree "Tree Protection Zone" **LA101**-Small Tree "Tree Protection Zone" (maximum 80 mm caliper) **LA405 –** Fencing and concrete post now require to be wholly within private property.