

Design Standard

Open Space

May 2022

City of Regina



REGINA
Infinite Horizons

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1. General

1.1. Introduction

- 1.1.1. The long-term goal of an open space system is to provide shared access to outdoor spaces and recreational opportunities for the residents of the City of Regina.
- 1.1.2. This design standard shall be used in conjunction with the general design standard and the guiding documents listed below.
- 1.1.3. This design standard shall be used in planning and design of open space within the City.
- 1.1.4. Where acts, bylaws, regulations, and standards are referred to, they shall be the current, amended, and updated issues.
- 1.1.5. It shall be a responsibility of designers to be aware of the statutory requirements governing such works and for compliance with those requirements.

1.2. Reference Documents

- 1.2.1. All related references are noted in Design Standard: General Information.

1.3. Definitions

- 1.3.1. All definitions are noted in Design Standard: General Information.

2. Preliminary Design

2.1. Municipal Reserve (MR) Introduction

- 2.1.1. The creation of Municipal Reserve parcels shall be in adherence with *The Planning and Development Act, 2007* and all other relevant bylaws and acts.
- 2.1.2. Municipal Reserve parcels shall be sized according to their respective recreation programs.
- 2.1.3. New open space shall be designed in coordination with the existing open space system to:
 - 2.1.3.1. Avoid redundant land uses.
 - 2.1.3.2. Meet the target service levels of the Recreation Master Plan.
 - 2.1.3.3. Ensure adequate budget and resources are available for maintaining the existing open space system with the inclusion of the new open space.
- 2.1.4. Through consultation with City of Regina recreation program & asset owners, a recreation program will be agreed to for incorporation into a Neighbourhood Plan open space system design.
- 2.1.5. A Design Brief will be prepared outlining the Neighbourhood Plan Recreation Program and its alignment with the City's Recreation Master Plan.
- 2.1.6. Recreation program planning for Open Space areas shall take place at the concept plan stage and should reflect the Neighbourhood Plan Recreation Program.
- 2.1.7. Content of the Concept Plan recreation program to be confirmed through consultation with City of Regina recreation program & asset owners before Concept Plan open space system design begins.
- 2.1.8. A Concept Plan Design Brief will be prepared outlining the Concept Plan Recreation Program.

- 2.1.9. It is understood by both the Developer and the City of Regina that not all construction details are known at the time of submission of Concept Plan, but that the best efforts will be made to represent the future intended use.
- 2.1.10. Concept Plan Design briefs may be reviewed to ensure they still accurately capture the recreational need for the concept plan area.
- 2.1.11. Municipal reserve lands adjacent to school sites will have recreational amenities selected by the asset owners through consultation with school boards.
- 2.1.12. Municipal reserve lands not adjacent to school sites will have recreational amenities selected by the asset owners in alignment with the Recreation Master Plan.
- 2.1.13. Municipal Reserve shall only be dedicated where there are more than two recreation amenities.

2.2. Municipal Reserve Classifications

Table 1: Municipal Reserve Classifications

Classification	Open Space Description	Suggested Sizes(ha)
MRHS	Municipal Reserve for High School.	As per <i>The Education Regulations, 2019</i>
MRES	Municipal Reserve for Elementary School.	As per <i>The Education Regulations, 2019</i>
ZP (see Note 1)	Municipal Reserve for Zone Park	5.0 to 15.0
NP	Municipal Reserve for Neighbourhood Park	1.0 to 5.0
PP01 (see Note 1)	Municipal Reserve for Pocket Park	0.25 to 1.0
UP01 (see Note 1)	Municipal Reserve for Urban Plaza	As determined by City
OSC (see Note 1)	Outdoor Sports Complex	As determined by City
Note 1: Zone Parks (ZP01) (ZP02), Outdoor Sports Complexes (OSC), Pocket Parks (PP01) and Urban Plazas (UP01) are only permitted at the direction of the City of Regina recreation program and asset owners.		

2.3. Municipal Reserve Requirements

- 2.3.1. The service coverage area for new developments shall be that a minimum of 85% of residents within 800m walking distance of a park.
- 2.3.2. New municipal reserve shall be located to form destinations within an identifiable pedestrian pathway system. Open Space destinations shall be connected via multiuse pathways.
- 2.3.3. Municipal reserve designation of greenway for pedestrian linkage shall be at the discretion of the City of Regina asset owner.
- 2.3.4. Municipal Reserve boundary landscape buffer shall be:
 - 2.3.4.1. 10 m when the park boundary is abutting residential land use.
 - 2.3.4.2. 5 m when park boundary is abutting non-residential land use.

2.4. Municipal Reserve Criteria

Table 2: Zone Class Municipal Reserve

ZP Class Municipal Reserve	
Item	Requirement
Access	Shall have no more than 25% of the perimeter bounded by private land with 30 m minimum street frontage.
Placement	Shall not be located on arterial roads.
Shape	Generally rectangular
Orientation	Shall allow for standard multipurpose athletic field orientation.
Service Coverage Area	Municipal destination

Table 3: NP Class Municipal Reserve

NP Class Municipal Reserve	
Item	Requirement
Access	Shall have no more than 50% of the perimeter bounded by private land with 30 m minimum street frontage.
Placement	Shall not be located on arterial roads.
Shape	Generally rectangular
Orientation	Shall allow for standard multipurpose athletic field orientation.
Service Coverage Area	800 m radial coverage

Table 4: PP Class Municipal Reserve

PP Class Municipal Reserve	
Item	Requirement
Access	Shall have no more than 75% of the perimeter bounded by private land with 30 m minimum street frontage.
Placement	Shall not be located on arterial roads.
Shape	Generally rectangular
Orientation	Not applicable
Service Coverage Area	800 m radial coverage

2.5. Municipal Reserves with Stormwater Facilities

- 2.5.1. Stormwater facilities located in Municipal Reserve shall follow the standards outlined in Section 3.4 of the Stormwater Design Standard.
- 2.5.2. A PW2.4A, see Transportation Design Standards, accessible pathway shall be provided to all portions of the stormwater facility that are intended for recreational use.

3. Detailed Design

3.1. General Design

- 3.1.1. Landscaping shall include, but shall not be limited to, topsoil, grading, turf establishment, tree planting, shrub planting where permitted, installation of irrigation where required, lighting where required, play equipment installation, recreation amenities, walkways, pathways, fencing, site furnishings, structures, special features and signage.
- 3.1.2. An allowance of 1.0m on either side of any pedestrian corridor shall be included in the design for the allowance of winter snow clearing.
- 3.1.3. Site allowances indicated are for preliminary site planning purposes only and include offsets. Program element footprint sizes shall be confirmed through consultation with City of Regina.
- 3.1.4. Footprint dimensions and orientation must be maintained where specific dimensions and orientation are given unless approved by the asset owner.
- 3.1.5. No-encroachment zones may be overlapped at the discretion of the City of Regina.
- 3.1.6. All athletic surfaces must be designed to meet all current safety standards appropriate for the sport and level of play.
- 3.1.7. Electrical needs shall be determined in consultation with City of Regina asset owners and program owners.

3.2. Spatial Organization

- 3.2.1. Designs for amenities with stated requirements must demonstrate that enough size, correct orientation, and shape have been provided for those amenities.
- 3.2.2. Combining passive recreational amenities together is acceptable if the safety of the users can be maintained when operational.
- 3.2.3. Incompatible uses shall be protected from each other (e.g.: baseball field/playground).
- 3.2.4. Combining recreational facilities for greater diversity in programming (combination cricket and athlete fields) or seasonal demand (outdoor rink and outdoor basketball court) will be considered through consultation.

3.3. Site Grading

- 3.3.1. All parks shall be graded to prevent water ponding.
- 3.3.2. Grades shall be designed to resemble natural, curvilinear landforms, unless otherwise required by demonstrated operational need.

Table 5: Open Space and Drainage Grading

Open Space and Drainage Grading		
Slope Description	Percent Slope	
	Max	Min
Slopes requiring mowing	20.0	2.0
Paved activity areas*	4.0	0.5
Paved pedestrian pathways*	5.0	0.5
Granular pedestrian pathways*	5.0	1.5
Cultivated planting beds	15.0	1.5

Local drainage swales/channels in municipal reserve	6.0	2.0
Local drainage swales/channels side slopes in municipal reserve	20.0	2.0
*Must conform to Saskatchewan Human Rights Accessibility Standards.		

3.4. Recreation Amenity - Ball Diamonds

Table 6: Ball Diamonds

Ball Diamonds	
Item	Requirement
Type of element	Scheduled program element
MR Placement	Outdoor Sports Complexes & ZP01
Orientation	See standard drawing OS-7
Site Planning Allowance	See standard drawing OS-7
Grading	See standard drawing OS-7
Offsets	See standard drawing OS-7
Surface	Turf Crushed shale infield
Site Furnishings	2 trash containers 2 players benches 2 bleachers

3.4.1. Field size and setbacks determined through consultation with the City of Regina asset owners.

3.5. Recreation Amenity - Cricket Field

Table 7: Cricket Pitch

Cricket Field	
Item	Requirement
Type of element	Scheduled program element
MR Placement	ZP01 & NP01
Orientation	North-South along longer dimension of cricket pitch
Site Planning Allowance	See standard drawing OS-5
Grading	See standard drawing OS-5
Offsets	See standard drawing OS-5
Surface	Turf Concrete Pitch
Site Furnishings	2 trash containers 2 players benches 2 bleachers

3.5.1. Concrete Pitch shall be 22 m long by 3.05m in width and covered with synthetic turf wearing surface.

3.5.2. Shall have field of play surface dimensions of 128 m x 148 m.

3.5.3. Shall be oriented north to south along the longer dimension of the play surface or northwest to southeast along the longer dimension of the play surface. East to west orientation will only be allowed at the discretion of the City of Regina.

3.6. Recreation Amenity - Multipurpose Athletic Field

Table 8: Multipurpose Athletic Field

Multipurpose Athletic Field	
Item	Requirement
Type of Element	Scheduled program element
MR Placement	ZP01, NP01, and NP02 class MR
Orientation	Preference to north to south orientation
Site Planning Allowance	See standard drawing OS-3
Grading	See standard drawing OS-3
Offsets	See standard drawing OS-3
Surface	Turf
Site Furnishings	2 trash containers 2 players benches 2 bleachers (Zone Park only)

- 3.6.1. See standard drawing OS-1 for Municipal Reserve Multipurpose Athletic Field in Stormwater Management Facility Typical Section.
- 3.6.2. See standard drawing OS-2 for Municipal Reserve Multipurpose Athletic Field in Stormwater Management Facility Typical layout.
- 3.6.3. Shall have a clearance zone around the perimeter of the play surface with a slope of 2% away from the play surface. The clearance zone shall be devoid of trees, shrubs, catch basins or other potential hazards to field users.
- 3.6.4. Shall have a no-encroachment zone around the outside perimeter of the clearance zone with a slope of 2% away from the play surface.
- 3.6.5. Shall have a PW2.4A accessible pathway to midfield no-encroachment zone as determined through consultation with City of Regina.
- 3.6.6. Shall be oriented north to south along the longer dimension of the play surface or northwest to southeast along the longer dimension of the play surface. East to west orientation will only be allowed at the discretion of the City of Regina.

3.7. Recreation Amenity - Off Leash Dog Park Facility

- 3.7.1. Municipal Off Leash Dog Park Facility

Table 9: Municipal Off Leash Dog Park Facility

Municipal Off Leash Dog Park Facility	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	ZP
Orientation	Not applicable
Site Planning Allowance	Municipal Scale: 2Ha including buffers and parking
Grading	Graded for drainage. Minimize catch basins within the off-leash area
Offsets	Minimum 20m offset from adjacent residential properties
Surface	Temporarily Irrigated Turf until establishment
Site Furnishings	Bulletin board 6 Benches minimum One Trash can at each entrance

Other	1.8m fencing Pedestrian control gates Service gates On-site Parking
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3.7.2. Neighbourhood Off Leash Dog Park Facility

Table 10: Neighbourhood Off Leash Dog Park Facility

Neighbourhood Off Leash Dog Park Facility	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	NP
Orientation	Not applicable
Site Planning Allowance	Neighbourhood Scale: .25Ha (min) plus buffers no parking required
Grading	Graded for drainage. Minimize catch basins within the off-leash area
Offsets	Minimum 20m offset from adjacent residential properties
Surface	Temporarily Irrigated Turf until establishment
Site Furnishings	One Trash can at each entrance
Other	1.2m fencing Pedestrian control gates service gates

3.7.3. Trash cans to be placed on the outside of the fence.

3.7.4. Can numbers increase with park size.

3.7.5. Interior, looped PW2.4A Pathway around periphery

3.7.6. Tree planting within the interior of the park as well as around the perimeter

3.8. Recreation Amenity - Outdoor Basketball Court Space

Table 11: Outdoor Basketball Court Space

Outdoor Basketball Court Space	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	Zone Park
Orientation	Preference to north to south orientation
Site Planning Allowance	See standard drawing OS-6
Grading	See standard drawing OS-6
Surface	Asphalt
Offsets	See standard drawing OS-6
Site Furnishings	2 players benches 1 Trash container
Other	Lighting

3.8.1. Shall be oriented north to south along the longer dimension of the play surface or northwest to southeast along the longer dimension of the play surface. East to west orientation will only be allowed at the discretion of the City of Regina.

3.8.2. Court design must allow for reconfiguration to multiple smaller courts.

3.9. Recreation Amenity - Outdoor Picnic Shelter

Table 12: Outdoor Picnic Shelter

Outdoor Picnic Shelter	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	ZP01
Orientation	Not applicable
Site Planning Allowance	200 m ²
Grading	1.0-1.5%
Surface	Concrete or Landscape brick
Offsets	5 metre no-encroachment zone around perimeter
Site Furnishings	5 Accessible picnic tables 1 trash container
Other	Size/type of picnic table set through consultation with City of Regina.

3.10. Recreation Amenity - Outdoor Picnic Sites

Table 13: Outdoor Picnic Sites

Outdoor Picnic Site	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	All classes
Orientation	Not applicable
Site Planning Allowance	70 m ²
Grading	1.0-1.5%
Surface	Concrete or Landscape brick
Offsets	5 metre no-encroachment zone around perimeter
Site Furnishings	3 Accessible picnic tables 1 trash container
Other	Size/type of picnic table set through consultation with City of Regina.

3.11. Recreation Amenity - Outdoor Racquet Sports Area

Table 14: Outdoor Racquet Sports Area

Outdoor Racquet Sports Area	
Item	Requirement
Type of element	Partially Scheduled program element
MR Placement	ZP01 & NP01
Orientation	Preference to north to south orientation
Site Planning Allowance	See standard drawing OS-7
Grading	See standard drawing OS-7
Offsets	See standard drawing OS-7
Surface	Asphalt
Site Furnishings	Rules and regulation sign

	Net anchors Trash container Two backless benches (72" in length) per court
Other	3.0 chain link fence around perimeter of facility Lighting

3.11.1. Shall be oriented north to south along the longer dimension of the play surface or northwest to southeast along the longer dimension of the play surface. East to west orientation will only be allowed at the discretion of the City of Regina.

3.12. Recreation Amenity - Outdoor Rinks

Table 15: Outdoor Rinks

Outdoor Rinks	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	ZP01 & NP01
Orientation	Not applicable
Site Planning Allowance	See standard drawing OS-8
Grading	See standard drawing OS-8
Surfaces	Concrete or asphalt
Offsets	See standard drawing OS-8
Site Furnishings	2 trash containers 2 benches at pleasure skate locations
Other	Accessible, heated building Boarded Rink Lighting Pleasure Skating Rink (not boarded) Winter water hydrant/winter service

3.13. Recreation Amenity - Outdoor Skate Park

Table 16: Outdoor Skate Park

Outdoor Skateboarding Park	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	ZP01 & NP01
Orientation	Not applicable
Site Planning Allowance	Minimum: 1000 m ²
Grading	Surface Graded at 0.5% min 1% max in all directions for drainage
Surface	Concrete or asphalt
Offsets	No-encroachment zone = 2.5 m around perimeter
Site Furnishings	1 Trash container Rules sign Lighting

- 3.13.1. Size, content, and theme of playground shall be determined through consultation with City of Regina asset owner.
- 3.13.2. Skateboarding elements are not required to meet grading specifications.

3.14. Recreation Amenity - Passive Park Space

Table 17: Passive Park Space

Passive Park Space	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	All classes
Orientation	Not applicable
Site Planning Allowance	Minimum: 2000 m ²
Grading	Not applicable
Surface	Turf
Offsets	2.5 m no-encroachment zone around perimeter
Site Furnishings	1 bench and trash container minimum per 1000 m ²

- 3.14.1. Irrigation of passive parks space shall be at the discretion of the City asset owner.

3.15. Recreation Amenity - Playgrounds

Table 18: ZP Class Playground

ZP Class Playground	
Item	Requirement
Type of element	Unscheduled program element Fully accessible
MR Placement	ZP
Orientation	Not applicable
Site Planning Allowance	Minimum: 1755 m ²
Subsurface Grading	Minimum: 2%
Surface	Poured-in-place rubber
Offsets	No-encroachment zone: 5 m around perimeter of playground
Site Furnishings	4 trash containers 6 benches 3 bike racks

Table 19: NP Class Playground

NP Class Playground	
Item	Requirement
Type of element	Unscheduled program element Accessible elements
MR Placement	NP classification

Orientation	Not applicable
Site Planning Allowance	Minimum: 1015 m ²
Subsurface Grading	Minimum: 2%
Surface	Engineered Wood Fibre Mulch
Offsets	No-encroachment zone: 5 m around perimeter of playground
Site Furnishings	1 trash containers 2 park benches 1 bike rack

Table 20:PP Class Playground

PP Class Playground	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	PP
Orientation	Not applicable
Site Planning Allowance	Minimum: 150 m ²
Subsurface Grading	Minimum: 2%
Surface	Engineered Wood Fibre Mulch
Offsets	No-encroachment zone: 5 m around perimeter of playground
Site Furnishings	1 trash containers 2 benches 1 bike rack

- 3.15.1. All playgrounds shall meet or exceed CSA Standards.
- 3.15.2. Size, content, and theme of playground shall be determined through consultation with City of Regina asset owner.
- 3.15.3. Playgrounds within Zone Parks shall be fully accessible.
- 3.15.4. Playgrounds in NP and PP may be fully accessible but at minimum shall include accessible elements.
- 3.15.5. Provide PW2.4A accessible pathway or equivalent from accessible play equipment sites to adjacent MR pathway or perimeter sidewalk.
- 3.15.6. All protective play surfacing shall have subsurface drainage.
- 3.15.7. Play equipment shall be vandal resistant.

3.16. Recreation Amenity - Spray Pads

Table 21:Spray Pads

Spray Pads	
Item	Requirement
Type of Element	Unscheduled program element
MR Placement	ZP
Orientation	Not applicable
Site Planning Allowance	Minimum: 1600 m ²

Grading	Spray pad must slope to internal drain
Offsets	No encroachment zone: 5m from edge of spray pad
Surface	Poured-in-place concrete and cast-in-place rubber
Site Furnishings	2 trash containers 4 benches

- 3.16.1. All spray pads shall meet or exceed CSA Standards.
- 3.16.2. Site allowance includes room for seating, picnic tables, pathways, and other relevant furnishings.
- 3.16.3. Size, content, and theme of spray pad shall be determined through consultation with City of Regina asset owner.
- 3.16.4. Spray pads shall be fully accessible.
- 3.16.5. Offset area shall slope away from the play surface.
- 3.16.6. Provide PW2.4A accessible pathway from spray pad sites to adjacent MR pathway or perimeter sidewalk.

3.17. Municipal Reserve Pathways

Table 22: Municipal Reserve Pathway

Municipal Reserve Pathway	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	All
Orientation	Not applicable
Site Planning Allowance	See Transportation Design Standard pathway classification tables
Grading	Must meet Saskatchewan Human Rights standards
Surface	See Transportation Design Standard pathway classification tables
Offsets	No-encroachment zone: 1 m either side of pathway
Site Furnishings	1 bench for every 500 m of pathway 1 trash receptacle for every 500m of pathway

- 3.17.1. Municipal Reserves greater than 4.0Ha in size shall have an internal looped pathway with connections to program elements.
- 3.17.2. Pathways internal to municipal reserves are for primarily recreational use rather than transportation use with straight alignments avoided where possible.
- 3.17.3. Pathways shall not be located over maintenance holes or other service accesses.

3.18. Off-Street Cycling Infrastructure

Table 23: Off-Street Cycling Infrastructure

Off-Street Cycling Infrastructure	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	At the direction of the Transportation Master Plan
Orientation	Not applicable
Site Planning Allowance	See Transportation Design Standard pathway classification table and rest of section

Grading	Must meet Saskatchewan Human Rights standards
Surface	See Transportation Design Standard pathway classification table and rest of section
Offsets	No-encroachment zone: 1 m either side of pathway
Site Furnishings	n/a

- 3.18.1. Refer to Transportation Design Standard for pathway classifications and widths.
- 3.18.2. Dedicated lands that are identified in the Transportation Master Plan for off-street cycling infrastructure shall be designed for a transportation use with efficient alignment to the existing cycling network.
- 3.18.3. Off-Street Cycling Infrastructure Pathways internal to municipal reserves shall be connected to the existing municipal reserve pathway where possible
- 3.18.4. Off-Street Cycling Infrastructure shall not be located over maintenance holes or other service accesses.

3.19. On-Site Parking

On-Site Parking	
Item	Requirement
Type of element	Unscheduled program element
MR Placement	ZP01, OSC, or municipal off-leash dog parks
Orientation	Not applicable
Site Planning Allowance	Varies according to Municipal Reserve programming
Grading	Graded appropriately for drainage
Offsets	Not applicable
Surface	Asphalt
Site Furnishings	Lighting Access control gates

3.20. Landscape Design – Tree Planting Setbacks

Table 24: Tree Planting Setbacks

Tree Planting Setbacks	
Location	Setback
Major Utilities (main gas lines, primary cables, etc.)	6.0 m
Underground utilities (sewer, water, gas lines, secondary cables, etc.)	2.0 m
Fire hydrants	2.0 m
Streetlights	3.5 m
Streetlight cables	1.5 m
Regulatory traffic signs (incoming traffic direction)	15.0 m minimum, consult with Traffic Engineering
Regulatory traffic signs (outgoing traffic direction)	2.0m
Advanced Warning traffic signs (incoming traffic direction)	5.0m

Advanced Warning traffic signs (outgoing traffic direction)	2.0m
Informational traffic signs (incoming traffic direction)	2.0m
Informational traffic signs (outgoing traffic direction)	2.0m
Street intersections	15.0 m
Pathway intersections	10.0m
Alleyways	4.5 m
Driveways	2.0 m
Bus stops	2.0 m

3.20.1. Plant material shall be located so as not to contribute to excessive wind deposition of snow on streets and major pathways.

3.20.2. Prevailing wind direction shall be noted on design drawings.

3.21. Landscape Design - Municipal Buffer Parcels

3.21.1. Municipal Buffer parcels shall be planned to mitigate nuisances such as noise, odour, dust, and visual pollution, and to buffer incompatible land uses.

3.21.2. Municipal Buffer parcels shall be designed to provide space for pathways and limited recreational amenities where these can occur safely and without conflict with adjacent land uses.

3.21.3. A minimum 4.5m Municipal Buffer parcel shall separate Municipal Reserve parcels from private lots.

3.21.4. Utilities, utility easements, and utility setbacks must not degrade the intent and/or function of a Municipal Buffer parcel.

3.21.5. Shrubs may be used as screening at the discretion of the City of Regina asset owner

3.22. Landscape Design – Roads

3.22.1. Trees shall only be placed in road rights-of-way in accordance with by the Transportation Design Standard requirements.

3.22.2. Underground space must be provided for both street tree infrastructure and utilities while ensuring minimum conflict.

3.22.3. Street tree infrastructure shall be 15 m³ of unimpeded underground space with a depth of no less than 0.9 m and no greater than 1.3m to accommodate soil trenches.

3.22.4. Engineered street tree infrastructure may be implemented when soil volume conditions are not available. Approval of infrastructure will require consultation with the City of Regina asset owner.

3.22.5. Landscaping of boulevards abutting parks with irrigated turf will include the installation of irrigation, grading, trees, and established turf from sod.

3.22.6. Boulevard planting design must demonstrate that it does not impede pedestrian movement, public safety, or operations equipment in any season.

3.22.7. Plant material shall be bedded with wood chip mulch.

3.23. Landscape Design – Walkway Parcels

3.23.1. Walkways shall be designed for ease of maintenance, in the opinion of the asset owner.

- 3.23.2. Landscaping of Walkway parcels will include established turf from seed or irrigated sod.
- 3.23.3. Underground space must be provided for both walkway tree infrastructure and utilities while ensuring minimum conflict.
- 3.23.4. Walkway Parcels shall be fenced the entire length of abutting lots on private property.
- 3.23.5. Shrubs may be used as screening at the discretion of City of Regina asset owner.
- 3.23.6. Walkway parcels shall remain unencumbered by utility infrastructure or utility easements. Where utility infrastructure use is required an MU parcel shall be formed.
- 3.23.7. Refer to Transportation Standard for further Walkway details.

3.24. Landscape Design - Greenways

- 3.24.1. Greenways shall be designed for ease of maintenance, in the opinion of the asset owner.
- 3.24.2. Underground space must be provided for both walkway tree infrastructure and utilities while ensuring minimum conflict.
- 3.24.3. Greenways shall be fenced the entire length of abutting lots on private property.

3.25. Landscape Design – Environmental Reserve

- 3.25.1. Landscaping of Environmental Reserves shall include trees, soil amendments, grading, and established grass by seed.
- 3.25.2. Grass seed mix shall be approved by the City of Regina asset owner.
- 3.25.3. Environmental Reserves shall be graded to drain quickly and completely after each storm event.

3.26. Landscape Design –Municipal Utility Parcels

- 3.26.1. Landscaping of Storm Channels and Municipal Utility Parcels shall include trees, soil amendments, grading, and established grass by seed.
- 3.26.2. Grass seed mix shall be approved by the City of Regina asset owner.
- 3.26.3. Trees shall not be planted in storm channel floodways, stormwater swales/ditches, or on top of flood protection dikes.

3.27. Irrigation

- 3.27.1. General
 - 3.27.1.1. Municipal Reserve properties shall have irrigation unless otherwise stated by the City of Regina.
 - 3.27.1.2. For the number, size and locations of municipal reserve service connections see the Water Design Standard 3.12.
 - 3.27.1.3. Potable water sources shall be metered and equipped with adequate back-flow devices per the City of Regina Standard Drawings.
 - 3.27.1.4. When permanent irrigation is not required, temporary irrigation shall be provided until plant material establishment has been achieved.
 - 3.27.1.5. Temporary watering may be achieved through use of watering vehicles or temporarily installed irrigation systems.
- 3.27.2. Design

- 3.27.2.1. Irrigation systems shall be designed to meet the performance, water distribution and precipitation requirements of the landscaped area.
- 3.27.2.2. Irrigation system design must demonstrate a minimum Distribution Uniformity (DULQ overall) rating of 70% or greater.
- 3.27.2.3. The irrigation system shall be designed to deliver water at a rate compatible with infiltration rates of the soil.
- 3.27.2.4. Irrigation design shall use the soil infiltration rates in Table 25: Irrigation Grade Slope & Infiltration Rate.

Table 25: Irrigation Grade Slope & Infiltration Rate

Irrigation Grade Slope & Infiltration Rate	
Grade Slope (%)	Water Infiltration Rate (mm/hr)
0-5	3.5
5-12	2.5
12-25	1.5

- 3.27.2.5. Requirements include the use of a looped system, after the water service connection, which splits at the head and loops around the irrigated space.
- 3.27.2.6. Hydraulic Design for Open Space shall include:
 - 3.27.2.6.1. Precipitation Rates
 - 3.27.2.6.2. Pressure demands
 - 3.27.2.6.3. Volume demands
 - 3.27.2.6.4. Friction loss in delivery pipe shall be calculated at the worst-case scenario to ensure proper working pressures.
 - 3.27.2.6.5. Acceptable maximum flows through 50 mm diameter solenoid valves shall not exceed 321 litres per min.
 - 3.27.2.6.6. Maximum flow velocities through the system shall not exceed 1.5 metres per second.
 - 3.27.2.6.7. Acceptable pipe sizes are 50 mm and 100 mm in diameter.
 - 3.27.2.6.8. Working pressure at each head shall be a minimum of 414 kPa (60 psi).
 - 3.27.2.6.9. Maximum pressure at the nozzle shall be 552kPa (80 psi)
- 3.27.3. Booster Pumps
 - 3.27.3.1. Booster pumps are required in all Parks greater than 1.0 ha.
 - 3.27.3.2. Booster pumps are required on all Athletic Fields.
 - 3.27.3.3. Booster pumps are required in Parks less than 1.0 ha, when the water service connection is less than 414 kPa (60 psi) and the worst-case friction loss is greater than 48 kPa (7 psi)
- 3.27.4. Zoning
 - 3.27.4.1. Zone irrigation heads separately in accordance with the following:
 - 3.27.4.2. All part-circle.
 - 3.27.4.3. Perimeter circuits.
 - 3.27.4.4. At all paths of travel and amenities.
 - 3.27.4.5. Precipitation rates.
 - 3.27.4.6. Gate valves shall be installed in zones abutting homes for the purpose of preventing overwatering at the rear of lots.
- 3.27.5. Cycles
 - 3.27.5.1. Watering cycles shall begin at 12:01am and be complete by to 8:00am.

- 3.27.5.2. Zones at pathways and amenities shall be scheduled in the middle of the allowable watering times.
- 3.27.5.3. The maximum watering window shall not be more than 8 hours.
- 3.27.5.4. The system shall deliver 25 mm of precipitation per week with a maximum run time of 24 hours per week over 3 days.
- 3.27.6. Sprinklers
 - 3.27.6.1. Irrigation system design must demonstrate head-to-head coverage.
 - 3.27.6.2. Layout sprinkler heads in triangular patterns where possible.
 - 3.27.6.3. Head locations are to be coordinated to ensure head-to-head coverage to avoid ghosting and unbalanced applications of water
 - 3.27.6.4. Sprinklers shall be gear driven rotary type capable of covering a 12 to 18 metre radius at 414 kPa (60 psi) at the head, with a discharge rate of 26L/min to 38L/min (7 to 10 gpm) and have radius adjustment capabilities from the top of the sprinkler.
- 3.27.7. Controllers
 - 3.27.7.1. One field wire per one output on the controller shall be provided.
 - 3.27.7.2. Doubling up two or more field wires to a single output is not permitted.
 - 3.27.7.3. The minimum station controller shall accommodate 24 stations.
 - 3.27.7.4. The maximum station controller shall accommodate 72 stations.
 - 3.27.7.5. One Controller per kiosk.
 - 3.27.7.6. Controller kiosks shall be located close to street/sidewalk and out of the way of pedestrian/vehicular traffic.
- 3.27.8. Materials
 - 3.27.8.1. The selection of products and equipment for use on the irrigation systems shall be commercial quality and vandal resistant.

3.28. Parking Lot Design

- 3.28.1. On-site parking shall be provided in parks intended to accommodate zone or city-wide sports programs or where zone-level dog parks are required.
- 3.28.2. All on-site lighting shall be located, oriented, and shielded so as not to adversely affect adjacent residential properties.
- 3.28.3. Curbing shall be used to provide a separation between parking areas and landscaped area or sidewalks.

3.29. Municipal Reserve Boundary Landscape Buffer

- 3.29.1. When abutting residential land use, the buffer must contain a mix of deciduous and coniferous trees planted every 10 metres.
- 3.29.2. When abutting a public roadway, the buffer must contain deciduous trees planted every 10 metres and be consistent with adjacent street trees.

3.30. Furnishings, Fittings, and Equipment - General

- 3.30.1. Furnishings, fittings, and equipment content for recreation amenities shall be determined through consultation with City of Regina recreation program and asset owners.
- 3.30.2. When combining recreation amenities on a municipal reserve, adjust furnishing quantities in consultation with City of Regina asset owner.
- 3.30.3. Site furnishings shall be durable and vandal resistant.
- 3.30.4. Benches

- 3.30.4.1. Must be installed on concrete pad abutting pathway. but not in encroachment zone.
- 3.30.4.2. Benches will be 1.83 meters in length with design to be provided through consultation with the City of Regina
- 3.30.5. Trash and Recycling
 - 3.30.5.1. Must be separated from benches, picnic areas by a minimum of 2 m.
 - 3.30.5.2. The container shall accommodate a standard 75 litre receptacle that will hold a 66 x 91 cm garbage bag.
 - 3.30.5.3. Trash containers shall be included adjacent to activity areas and at major park entrances.

3.31. Lighting

- 3.31.1. Lighting shall follow City of Regina Open Space Lighting Policy and Procedures.
- 3.31.2. All lighting systems shall be switched by a photo-electric cell and will include a time clock for manual control.
- 3.31.3. All lighting in open space shall be located, oriented, and shielded to not adversely affect adjacent residential properties.
- 3.31.4. Light levels will be measured horizontally.
- 3.31.5. The light source for all activity areas shall be energy-efficient LED.
- 3.31.6. Where lighting is required, light levels in activity areas shall meet IES guidelines.

3.32. Signage

- 3.32.1. A standard park name sign shall be provided at the major entrance points to each park.
- 3.32.2. Park signs shall be standard Blue Tower Signs per City of Regina Landscape Standard Drawings.

3.33. Fencing

- 3.33.1. Fencing shall not be used on open space parcels unless there is a demonstrated requirement for safety, security, or screening.

3.34. Plant Material

- 3.34.1. Shrubs, perennial plants, and annual plants are permitted only at the direction of the City asset owner.
- 3.34.2. When permitted, shrubs shall be provided to delineate space, define edges, screen views, reduce wind velocity, and provide shade for users.
- 3.34.3. Passive recreational open space shall have 50% crown cover at maturity.
- 3.34.4. This shall consist of a balanced mix of shade trees, evergreen trees, and ornamental trees.
- 3.34.5. Shrub cover shall be provided at a minimum of one percent crown cover at maturity.
- 3.34.6. Trees and shrubs shall be mulched in non-irrigated areas and areas with dry conditions or good drainage.
- 3.34.7. When applicable, tree watering bags can be utilized to support the maturation of these trees.
- 3.34.8. Plants shall be grouped and located according to water needs.

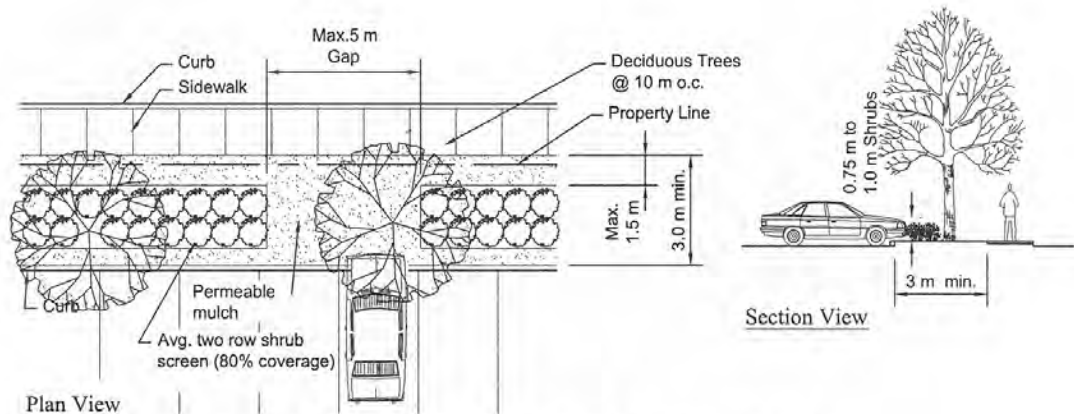
3.34.9. When permitted, shrub beds in parks shall be a minimum of 2.5 m from adjacent private property and 2 m from pathways/ sidewalks to permit drainage and maintenance.

4. Site Design

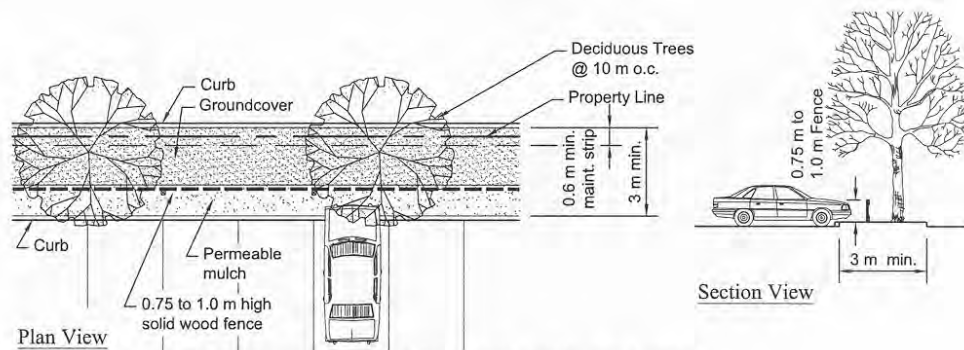
4.1. Parking Lot - Perimeter Screening along Road right-of-way

4.1.1. Where a parking area, loading area or outdoor storage area abuts a road right-of-way, a minimum 3.0 m landscaped strip measured from the inside of the curb, or the sidewalk shall be provided. Refer to Figure 1. The perimeter screening shall include:

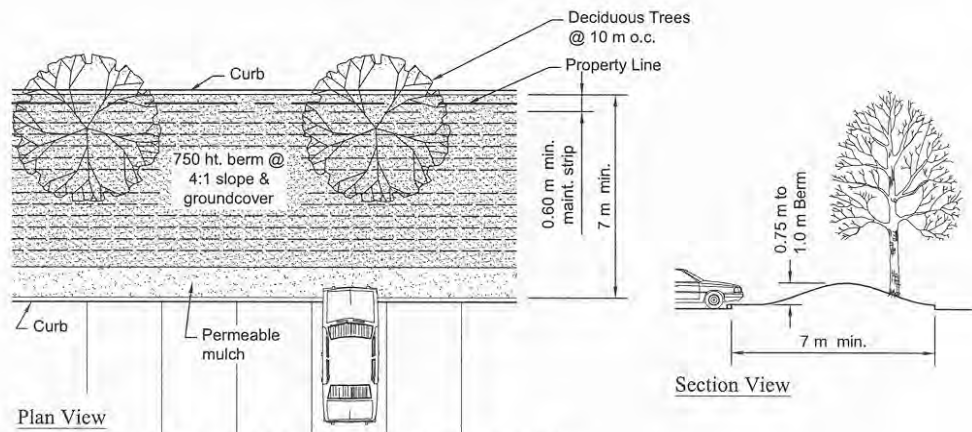
- 4.1.1.1. Shrubs, fencing or a berm shall be provided to form a screen between 0.75 m and 1.0 m in height and shall cover 80 % of the length of the area to be screened. Fencing shall be at least 85 % opaque.
- 4.1.1.2. In the case of shrub plantings, shrubs shall be spaced to form a closely-knit mass. An average of two rows is required.
- 4.1.1.3. The maximum width for a continuous, uninterrupted strip of permeable mulch shall be 1.5 m. Isolated areas of up to five m in length may exceed the minimum 1.5 m width.



a) Deciduous trees & closely knit shrub planting (750 to 1000 millimetre height)



b) Deciduous trees & 85% opaque fence (750 to 1000 millimetre height)



c) Deciduous trees & berm (750 to 1000 millimetre height)

4.2. Signage

4.2.1. Subdivision signs shall be mounted on subdivision fence only.

4.3. Fencing

4.3.1. All privacy, walkway, property delineation, and subdivision fences shall be built on private property to the satisfaction of the City of Regina.

Revisions		
Description	Notes	Date
Open Space Design Standard Initial Publication		May 2022